

**The complexity of understanding:  
Young children's experiences in a forest  
program**

**by**

**Magdalena Rudkowski**

M.A. (Early Childhood Studies), Ryerson University, 2008  
B.A. (Early Childhood Education), Ryerson University, 2007

Dissertation Submitted in Partial Fulfillment of the  
Requirements for the Degree of  
Doctor of Philosophy

in the  
Curriculum Theory and Implementation Program  
Faculty of Education

**© Magdalena Rudkowski 2015**

**SIMON FRASER UNIVERSITY**

**Fall 2015**

All rights reserved.

However, in accordance with the *Copyright Act of Canada*, this work may be reproduced, without authorization, under the conditions for "Fair Dealing." Therefore, limited reproduction of this work for the purposes of private study, research, criticism, review and news reporting is likely to be in accordance with the law, particularly if cited appropriately.

# Approval

**Name:** Magdalena Rudkowski  
**Degree:** Doctor of Philosophy  
**Title:** *The complexity of understanding:  
Young children's experiences in a forest program*

**Examining Committee:** **Chair:** Charles Scott  
Limited Term Lecturer

**Margaret MacDonald**  
Senior Supervisor  
Associate Professor

---

**Sean Blenkinsop**  
Supervisor  
Associate Professor

---

**Allan MacKinnon**  
Supervisor  
Associate Professor

---

**Stephen Smith**  
Internal Examiner  
Professor

---

**Julia Ellis**  
External Examiner  
Professor Emeritus  
Faculty of Education  
University of Alberta

---

**Date Defended/Approved:** October 19, 2015

## Ethics Statement



The author, whose name appears on the title page of this work, has obtained, for the research described in this work, either:

- a. human research ethics approval from the Simon Fraser University Office of Research Ethics,

or

- b. advance approval of the animal care protocol from the University Animal Care Committee of Simon Fraser University;

or has conducted the research

- c. as a co-investigator, collaborator or research assistant in a research project approved in advance,

or

- d. as a member of a course approved in advance for minimal risk human research, by the Office of Research Ethics.

A copy of the approval letter has been filed at the Theses Office of the University Library at the time of submission of this thesis or project.

The original application for approval and letter of approval are filed with the relevant offices. Inquiries may be directed to those authorities.

Simon Fraser University Library  
Burnaby, British Columbia, Canada

update Spring 2010

## Abstract

A large body of literature indicates that young children need direct contact with natural environments for their overall health and wellbeing. Additionally, the Western world is becoming increasingly anxious about children's separation from nature. In line with these claims, there has been a growing interest in forest programs for young children, which offer unstructured play opportunities in 'wild' forest settings. Using hermeneutic phenomenology (van Manen, 1990) as a guiding methodological framework, and the Mosaic approach (Clark & Moss, 2004) to collect data with young children, this dissertation sets out to explore four-year old children's experiences in a forest program in British Columbia. Specifically, I ask "*What are four-year-old children's experiences in a forest program?*" Six children (five boys, one girl) participated in the study over a five-month period. In addition to video observations, the children participated in ongoing creative data collection methods, including: drawing, photography, child-led tours, and book making. Ongoing conversations between myself and the children and personal reflections on the children's and my own experiences were integral to the hermeneutic analysis and the hermeneutic circle. Analysis was intertwined with data collection, and was seen as a reflexive process of collecting and interpreting experiences (van Manen, 1990). Findings from this study showed that the children's experiences ranged from self-nurturing and positive experiences, social dynamics and empathy for other-than-human living world, challenging experiences of fear, dislike, weakness, and pain, experiences of imagination, experiencing curiosity, as well as experiences of thrill and risk-taking. Drawing from these insights I conclude with several educational implications related to forest programs for pre-school children.

**Keywords:** early childhood experiences; early childhood forest programs; hermeneutic phenomenology; Mosaic approach.

## **Dedication**

For the love of my childhood

## **Acknowledgements**

This dissertation would not have been possible without the ongoing enthusiasm and guidance of my senior supervisor and mentor, Dr. Margaret Macdonald. Under her thoughtful guidance, I was able to expand upon my knowledge and gain confidence of speaking from my heart. Thank you for your endless support.

I am deeply grateful for my dissertation committee members, Dr. Sean Blenkinsop and Dr. Allan MacKinnon. Their ongoing patience, attention to detail and expertise in their feedback had led me to challenge my ideas and expand my scope of knowledge.

To the external examiners, Dr. Stephen Smith and Dr. Julia Ellis. I am thankful for their devotion and warmth throughout the end of my dissertation journey.

I would like to extend my gratitude for my mother and father. Their ongoing love and enthusiasm helped me to remain strong. To my dearest family, who allowed me with the opportunity to play outside as a child. Especially for my brother, Paul, who shared the fun of flying the 'rakietas' with me. Those memories are close to my heart.

Lastly, to my husband Michal, who trusted in my dream, packed up his life and moved to British Columbia to be with me. Our time exploring the West Coast helped me to challenge myself, whether it was with log crossings or getting lost on an abandoned trail. His ongoing support helped me keep focus, and prove to myself that I can achieve what I didn't think was possible.

# Table of Contents

Approval.....	ii
Ethics Statement.....	iii
Abstract.....	iv
Dedication.....	v
Acknowledgements.....	vi
Table of Contents.....	vii
List of Tables.....	x
List of Figures.....	xi
Glossary.....	xii
<b>Chapter 1. Introduction .....</b>	<b>1</b>
1.1. Aims of my study .....	6
<b>Chapter 2. Literature Review.....</b>	<b>8</b>
2.1. Chapter Overview.....	8
2.2. Theory of Affordances .....	8
2.3. Theory of Loose Parts .....	9
2.4. Children’s Outdoor Experiences .....	10
2.4.1. Physical Activity, Challenge and Risk .....	11
Physical Movement and Activity Levels in Forest Environments.....	11
Challenge and Risk-Taking in Forest Environments.....	12
2.4.2. Various Weather Conditions .....	14
2.4.3. Various Perspectives: ‘Nooks’ and ‘look out’ towers .....	15
2.4.4. Playfulness and enjoyment in Forest Environments.....	15
2.4.5. Imagination.....	16
Imaginary play in forest environments .....	16
Super-Hero Aggressive Play.....	18
2.4.6. Curiosity and Empathy.....	19
Curiosity .....	19
Empathy and ‘sense of place’ .....	20
2.4.7. Fear.....	21
2.5. Areas of Investigation and Rationale .....	22
2.6. Chapter Summary .....	23
<b>Chapter 3. Methodology .....</b>	<b>24</b>
3.1. Chapter Overview.....	24
3.2. Theoretical Framework.....	24
3.3. Foundations of Hermeneutic Phenomenology .....	25
3.3.1. Dasein .....	27
3.3.2. Lived Experiences through Embodiment .....	27
3.3.3. Fusion of Horizons.....	28
3.3.4. Hermeneutic Circle .....	28
3.3.5. Play .....	29
3.4. Van Manen’s Approach to Hermeneutic Phenomenology .....	30

3.5. Research Setting .....	32
3.6. Participants.....	33
Oliver .....	33
Lilly .....	34
John .....	34
Joshua .....	34
Caden .....	34
Aron .....	34
3.7. Data Collection: Mosaic Approach .....	35
3.7.1. Rationale for Mosaic Approach.....	35
3.7.2. Research Protocols for Mosaic Approach .....	36
Establishing my role as a researcher .....	36
Introducing each activity at the beginning.....	36
Making use of simple and open-ended instructions.....	37
Revisiting artifacts for deeper understanding .....	37
Flexibility .....	38
Personal Journaling .....	38
3.7.3. Research Tools .....	38
Observations .....	39
Casual Child Conversations.....	39
Drawings .....	39
Photography.....	40
Child-Led Tours.....	40
Book-Making .....	40
Adult Interviews (Teacher, Founder, Parents) .....	41
3.8. Pilot Study .....	42
3.9. Analysis.....	42
3.10. Hermeneutic Reflection .....	44
3.11. Research Ethics .....	45
Involvement of children in research.....	45
Consent. ....	46
Choice.....	46
Possible harm and distress. ....	46
Privacy and Confidentiality. ....	47
3.12. Chapter Summary .....	47
<b>Chapter 4. Insights.....</b>	<b>48</b>
4.1. Chapter Overview .....	48
4.1.1. Joy.....	48
4.1.2. Calmness and Children’s own ‘special spots’ .....	51
4.1.3. Pride and Feelings of Self-Autonomy.....	54
4.2. Experiencing Social Dynamics and Empathy for Other-Than-Human Living World.....	56
4.2.1. Emotional bonds between peers.....	56
4.2.2. Problem solving and communication .....	59
4.2.3. Empathy for other-than-human living world.....	62
4.3. Experiencing Personal Challenge .....	65
4.3.1. Fear.....	65
4.3.2. Dislike of Mud.....	68
4.3.3. Physical Tiredness and Pain.....	70

4.4.	Experiencing Imagination .....	75
4.4.1.	Forest as Invitation for Imagination .....	75
4.4.2.	Influence of Popular Culture .....	79
4.5.	Experiencing Curiosity .....	83
4.5.1.	Curiosity about animals and wildlife .....	83
4.5.2.	Curiosity about natural elements .....	85
4.5.3.	Curiosity about death in nature .....	87
4.6.	Experiencing Thrill and Risk-Taking.....	89
4.6.1.	Thrill-seeking games .....	89
4.6.2.	Attempting Physically Challenging, Risky Behaviours.....	93
4.6.3.	Persistence.....	97
4.7.	Experiencing physical manipulation: Human over nature hierarchy .....	100
4.8.	Chapter Summary .....	102
 <b>Chapter 5. Conclusion.....</b>		<b>104</b>
5.1.	Chapter Overview.....	104
5.2.	Aims of Research and Research Question .....	104
5.3.	Major Conclusions .....	106
5.3.1.	Imagination.....	106
5.3.2.	Risk .....	107
5.3.3.	Impact of Adult Presence.....	107
5.3.4.	Romanticizing forest programs .....	109
5.4.	Limitations .....	109
5.5.	Implications for Future Research .....	111
 <b>References .....</b>		<b>112</b>
Appendix A.	Visual Timeline of Research Activities.....	127
Appendix B.	List of Children’s Experiences.....	128

## List of Tables

Table 1.1.	Benefits of Direct Contact with Nature.....	4
Table 3.1.	Participant Breakdown .....	33
Table 3.2.	Number of Children for each Research Tool .....	41
Table 3.3.	Number of Adults for each Research Tool.....	41

## List of Figures

Figure 3.1.	Hermeneutic Phenomenology .....	25
Figure 4.1.	Lilly expressing joy of leaves .....	50
Figure 4.2.	Lilly building a nest.....	52
Figure 4.3.	What Lilly sees while laying down .....	53
Figure 4.4.	Lilly's drawing of her and Oliver.....	57
Figure 4.5.	Jumping over the stream.....	58
Figure 4.6.	Caden's Forest Book page.....	67
Figure 4.7.	Oliver with muddy hands .....	69
Figure 4.8.	Caden's Teeter-Totter .....	76
Figure 4.9.	Drawing of the spaceship .....	78
Figure 4.10.	Oliver's drawing of the bark .....	86
Figure 4.11.	Hiding in suspense from 'bad teacher' .....	91
Figure 4.12.	Joshua's 'forest book' illustrating bad teacher.....	91
Figure 4.13.	Oliver's forest book illustration.....	93
Figure 4.14.	Running downhill.....	94
Figure 4.15.	Exploring a New Tunnel .....	96

## Glossary

Young Children	Children from birth till age 8 years
Lived Experience	Lived experience (or, <i>Lifeworld</i> ) as described by van Manen (1990; 2007), is the prereflective consciousness of everyday life. The task for hermeneutic phenomenology is to understand and form meaning, as well as bring the hidden or 'taken-for-granted' into light.
Direct Experiences	Kellert (2002) explains that there are three ways one could experience nature: direct, indirect and vicarious. In discussing young children's nature experiences throughout my dissertation, I elaborate on complexities that young children directly experience in a forest. Kellert (2002) explains that direct experience involves physical contact with the natural setting which is outdoors and independent of human 'built environment' and invention (including forests, creeks, backyards). This differs from indirect experience, which does contain physical contact to the natural world, but in a regulated and limited environment. For example, children visiting zoos, aquariums, museums or nature centres. Indirect experience also includes owning domestic animals and plants, as well as maintaining gardens and farms. Lastly, Kellert (2002) introduces vicarious or symbolic nature experience, in which children do not have actual physical contact with the natural world. Instead, vicarious experiences occur when children learn about nature from a third-party, such as the media, books or others. These encounters may be a realistic depiction of the natural world, but more often than not, a 'styled' or false representation (Kellert, 2002). Although all children will mostly experience nature through these three categories, I will be referring to a young child's direct experience with nature throughout my dissertation, specifically in an unstructured, forest environment.
Unstructured Play	Unstructured play, otherwise also known as 'free' play, is a type of play motivated from a child's intrinsic or inner drive. As opposed to structured play, unstructured play not directed or led by a caregiver and/or not driven by external goals or objectives. For instance, organized activities, such as soccer or ballet practice, are not considered unstructured play due to the external rules and motives (Brussoni, Olsen, Pike & Sleet, 2012).

Forest  
Environments

Forest environments are patches of wilderness which, although may be influenced by human presence, extend beyond human construction, and include living (e.g. flora, wildlife) and non-living natural elements (e.g. sticks, rocks, water) (Chawla, 2002). It may include small or large patches of wilderness found in areas of yards, neighbourhoods, forests and parks. Kaplan and Kaplan (1989) expand by referring it to “places near and far, common and unusual, managed and unkempt, big, small, and in-between, where plants grow by human design or even despite it” (p.2).

## Chapter 1. Introduction

“A child’s world is fresh and new and beautiful, full of wonder and excitement”

– Rachel Carson (1965)

*When I was young child, my uncle owned a cottage in a small village within two hours of our home in Poland. As a family, we used to gather at that cottage during parts of the summer – away from the noise and the daily-life of our worlds. I remember playing with my brother and my older cousin when I was five. In that particular summer, we fished, swam, and wandered around. But what I remembered most is spending time with my grandmother. Every day, I watched her intently as she sat at a table and selected the perfect mushrooms to preserve in a jar for the winter.*

*One morning, I joined her on a walk to pick mushrooms in the forest. We followed a wide street that soon turned into a thin, dusty trail leading to the forest. The height and size of the trees quickly consumed us, and the density of the forest overwhelmed me. The sun was not shining as bright as it did, and the breeze felt colder. Hearing the birds made me want to stay closer to my grandmother, holding her hand and staying as close to her as I could. It took some time for me to feel comfortable, but when I did, I began running ahead and investigating the trail. The moss, the cold streams, and the little critters I found made me even more curious. What surprised me was when my grandmother went off the trail and right into the overgrown forest. I followed in her direction until she stopped. There was a patch of mushrooms of all sizes. They looked just like the ones I ate before. They were slightly brown in colour, with a funny looking hat on top with ridges underneath. My grandma told me that those were the ones we are to look for, as she bent down to tear them out and place it in her bag. I remember the feelings of deep excitement. Even now as an adult I feel the excitement by remembering that moment. The scent from those mushrooms and the forest are still vivid in my mind. It was a treasure that we were hunting for. My focus turned to the goal: finding the ‘right’ mushrooms. With my intent and focus, I was running from tree to tree, hunting for the perfect mushrooms.*

This story from my childhood illustrates one of my early memories of spending time in natural environments. My time outdoors, whether it was alone or with the people whom I deeply cared about, has influenced who I am today. The forest gave me opportunities, and taught me lessons that I would not learn otherwise. It taught me to be brave, yet not to be overly confident and careless in what I do and what decisions to make. It encouraged me to be imaginative, careful and grateful. One of my favourite childhood treats were those mushrooms, and as my grandmother reminded me, it was the forest that offered us that gift. It is these experiences that persuaded me to merge my profession as an early childhood educator with my enthusiasm of the outdoors. Yet, as my experience is separated by both time and location, I hold the understanding that growing up in Poland is quite different from Canada today.

Scholars such as Ellis (2010a; 2010b), have been studying the impacts of physical spaces on children's wellbeing, learning and development. In addition to social influences, physical environments also impact children's experiences of the world. By employing autobiographical research, Sebba (1991) asked 96 students (aged 21-30), 102 teachers, school principals and nursery school teachers to write down and illustrate a place which they found the most significant in their childhood. Interestingly, the age that was frequently referred to by the participants ranged from four to ten years, but what is even more profound is what Sebba (1991) concluded:

Despite the heterogeneous nature of the participants in terms of sex, age, character, and the environments in which they grew up, 96.5% of them indicated the outdoors as the most significant environment in their childhood... The descriptions focused on the physical characteristics of the environment and the manner in which the child 'associated' with them. In this context, it can be said that the environmental features were presented as active factors in the childhood experiences and not as background (p.400-401).

Although this research is slightly out of date, I relate to these findings. The natural world made an impression on my childhood memories— the smells, scents, elements and emotions are engrained in my mind. Sebba's (1991) findings drew my attention to the ways others experience nature. The physical surrounding of a natural, outdoor world has the potential to make positive imprints on a child's world. Wells and Lekies (2006), for example, conducted a large-scale study of 2,000 adults in North America, and found that

regular 'wild nature' participation prior to the age of 11 years, such as walking, playing or camping in a forest, strongly correlates to positive and caring attitudes and behaviours in their adult years. Other well-known studies in the field, such as Chawla and Hart (1995) as well as Chawla (2007) concur and elaborate on how care and concern for the environment in adulthood is linked to positive early childhood experiences in natural environments.

In addition to predicting future care and positive attitudes towards nature, I found that many authors expressed enthusiasm about the benefits children gain when consistently spending time in outdoor natural environments, including: improved levels of concentration, empathy, physical health and coordination, imagination, personal satisfaction, as well as decreasing stress (refer to *Table 1.1. Benefits of Direct Contact with Nature*). These studies imply the importance of natural environments in a child's life. Many of these researchers echo the claims that natural environments have an irreplaceable worth for young children. Sebba (1991) explained this in a sensitive and poetic manner. The natural environment, she elaborated, is continuously changing with an abundance of distinctive and various textures, sounds, scents and temperatures that overpower the senses. The continuous transformations within nature, such as weather, scents, temperature, textures, light and life cycle requires us to remain attentive and practice a keen sense of awareness. The elements stimulate the imagination, as inanimate objects may appear to be alive through their natural movement. The human-made environment, on the other hand, offers a sense of comfort, control and predictability. As it is constructed and regulated by humans, it shields us from harsh elements, climates or temperatures. As Sebba (1991) echoed, children require the opportunities which are found within the natural world, to learn about themselves and the world around them in the sensitive years of their early lives.

While research has argued that natural environments have the potential to have a positive influence on young children, there seems to be a great amount of anxiety regarding the quality of children's experiences in the North American society. Family caregivers, educators, and scholars are consistently discussing the rapid increase of structure in children's lives, indoor leisure activities, obesity and other health-related issues, over-protective (or 'helicopter') parenting and the rise of technology consuming

childhood play (e.g. Fjørtoft, 2001; Jacobson, 1999; Orr, 1994; Skår & Krogh, 2009; Sandberg, & Vuorinen, 2006; Bonnett & Williams, 1998; Zaradic & Pergams, 2007; Zaradic & Pergams, 2008; Elkind, 2001; Postman, 1994; Louv 2008; Cushing, 2009). Popular mainstream books, such as “Last Child in the Forest: Nature Deficit Disorder” (Louv, 2008) are being used as a topic of conversation regarding the anxieties many face about the lack of nature in a child’s life. The terms of *Biophobia* are frequently discussed, which highlights how children, and humans in general, are turning away from nature (Orr, 1994). Active Health Kids Canada (2014), an organization providing statistics on the physical health of young children, rated Canadian children with a D- on their annual physical activity 2014 report card and claiming that young children are just barely meeting Canadian guidelines for movement, especially in the outdoors (Active Health Kids Canada, 2014). Further, scholars such as Sebba (1991) as well as Kahn and Kellert (2002), warn that the future generations will be even more out-of-touch with nature, and nature will no longer be a place for young children.

**Table 1.1. Benefits of Direct Contact with Nature**

Benefits	Studies
Stress reduction	e.g. Wells & Evans, 2003; Faber Taylor, Wiley, Kuo & Sullivan 1998; Kaplan, 1995; Louv, 2008; Wilson, 2008
Sense of peace	e.g. Crain, 2001, Sobel, 2008; Louv, 2008, Wilson, 2008
Psychological wellbeing and satisfaction	e.g. Kaplan, 2001; Maller, Townsend, Pryor, Brown & Leger 2006; Taylor & Kuo, 2006; Louv, 2008, Wilson, 2008
Physical wellbeing	e.g. Moore, Gao, Bradlee, Cupples, Sundarajan-Ramamurti, Proctor, Hood, Singer & Ellison, 2003; Fjørtoft, 2001; Louv, 2008, Wilson, 2008
Cognitive function	e.g. Wells, 2000; Louv, 2008, Wilson, 2008
Attentiveness	Kaplan, 1995; Louv, 2008, Wilson, 2008
Increased concentration and self-discipline	e.g. Taylor et al., 2002; Berman, Jonides & Kaplan, 2008; Taylor & Kuo, 2009; Tennessen & Cimprich, 1995; Louv, 2008, Wilson, 2008
Increase in critical and analytical thinking	e.g. Bartosh, Tudor, Ferguson & Taylor, 2006; Louv, 2008, Wilson, 2008

Increase of curiosity, sense of wonder	e.g. Wilson, 2008; Veselinovska, Petrovska & Zivanovic, 2010; Haluza-Delay, 2001; Zeece & Wells, 2007; Louv, 2008, Wilson, 2008
Creativity and imagination	e.g. Crain, 2001; Cobb, 1977; Louv, 2008, Wilson, 2008
Appreciation for life forms, care and concern for nature	e.g., Palmer, 1993; Weinstein, Przybylski & Ryan, 2009; Louv, 2008, Wilson, 2008
Positive future environmental attitudes and behaviours	e.g. Chawla & Hart, 1995; Wells & Lekies, 2006; Chawla, 2007; Louv, 2008, Wilson, 2008

I found these trends in literature to be alarming. Yet, I also noticed the many initiatives focusing on taking young children into the natural world. Ranging from school philosophies, initiatives, parent groups to not-for-profit organizations, it seems that the North American culture is placing an emphasis on bringing children outdoors. My personal experience in the field had also made me aware of the awe early childhood educators have regarding the outdoors, often seeming captivated by the prospect of taking young children into a 'wild' forest. Nature, as it appears to me, in the minds of many seems to be the all-wonderful antidote to the health issues young children are facing within our modern society.

This is where my dissertation journey takes me. Upon arriving in British Columbia, my interests in the forest led me to a not-for-profit forest program geared to take young children into a forest, to play, as a group in an unstructured manner. The program is based on the 'forest school' mentality, "an educational approach that fosters a connection to, and knowledge of, the natural world through repeated, regular access to local woodland areas, parks and outdoor classrooms through the lens of play-based and child-directed learning" (Child and Nature Alliance of Canada, 2012, para. 3). The philosophical foundations originate from various philosophers who value the importance of holistic, direct learning experiences. These include the progressive education contributors such as John Dewey and Jean-Jacques Rousseau as well as Friedrich Fröbel, a German educator who developed the first concept of the Kindergarten in the 1800s (Nutbrown, Clough & Selbie, 2008; Mills, 2009). Such forest programs are held outdoors in small, high-adult ratio in multi-aged groupings, where the educator is seen

as a collaborator rather than the director of daily activities. It is based on the theoretical concept that the natural outdoors are fundamental in the cultivation of all developmental domains, including social-emotional, physical, cognitive and linguistic realms (Williams-Siegfredsen, 2012; Kane & Kane, 2011; O'Brien, 2009). The approach encourages children to partake in open-ended unstructured play, focusing on learning by doing through their everyday lives, and working independently and collaboratively to solve problems and to explore (O'Brien, 2009). As with benefits natural, outdoor environments offers for young children, there has been research specifically focusing on the benefits children gain through regular participation in forest programs. Such benefits are noted to include: increased confidence, social skills, language development, concentration, and physical skills, as well as increased awareness and understanding regarding the natural world (e.g. Massey, 2005; Murray & O'Brien, 2005; O'Brien & Murray, 2006).

By becoming enrolled in this program, I learned that the parents bring their young children to the program for a variety of reasons. For some, it was to give their child the time to interact with natural landscapes. To others, it was to learn about the natural world, or, express their imagination, energy, take physical risks or get away from the everyday technological gadgets. In most cases, it was all of the above. The families also came from a variety of contexts. Some parents considered themselves 'nature-lovers' or 'outdoorsy' and wanting to continue this passion with their young children, whereas other parents were frightened of the outdoors and hoped to provide their children with the opportunity to go into a forest without experiencing similar fears. For whichever reason, they all shared the same goal: making time for their children to play in a forest environment.

## **1.1. Aims of my study**

Spending time in the program allowed me to witness the children's impressions, and experiences while reflecting upon my own upbringing and the discussions in literature. I became fascinated with how these children experience the forest program. Thus, in my dissertation, I set to explore the question of: *What are four-year-old children's experiences in a forest program?* I begin with two intentions in my research: First, to conduct participatory research with young children, recognizing that they are

experts in their own lives and; second, to fuse my personal voice within this research as it speaks directly to my upbringing and allows for deeper exploration. To fulfill these intentions, I combined the *Mosaic approach* and *Hermeneutic Phenomenology* as my guiding methods and methodology respectively (Clark & Moss, 2004; van Manen, 1990).

In chapter two, I discuss the current literature conducted on young children's nature experiences, reviewing the methodologies and results of studies and the various questions asked within Canadian, and English-speaking contexts. Following this, chapter three articulates the complexities of hermeneutic phenomenology, explaining its roots and foundations in this study, the methods and processes used for analysis. Next, chapter four offers the results addressing the research purpose and question, as well as an interpretive discussion of what these children experienced in the forest. To close, chapter five summarizes this study's contributions and limitations and ends with concluding remarks.

## **Chapter 2. Literature Review**

### **2.1. Chapter Overview**

In my introductory chapter, I discussed the role that natural, outdoor environments played in my childhood. I also briefly discussed the ample amount of literature of the benefits scholars claim nature has on young children's wellbeing, and the anxiety that our culture is experiencing in regards to child-nature divide in the contemporary Western world. My aim for this chapter is to introduce the research regarding young children's experiences in natural, outdoor spaces. This includes an explanation of the theory of affordances (Gibson, 1979) and loose parts (Nicholson, 1971), as they are frequently mentioned in early childhood outdoor literature and provide an insight of how young children interact with their physical surroundings. To provide context, I then review studies that explore young children's experience forest settings. Such forest settings include small or large patches of wilderness found in areas of yards, neighbourhoods, forests and parks. I conclude the chapter with a rationale for the research I have undertaken in this area.

### **2.2. Theory of Affordances**

Children are inherently drawn to actively explore their immediate world. From an early age, they are keen to tinker with objects and interact with people and environments around them – being attentive to new sounds, smells and tactile experiences which stimulate their senses (Nicholson, 1971; Cobb, 1977; Sebba, 1991; Wilson, 2008). Young children require such experiences to learn about themselves and the immediate world (Cobb, 1977; Sebba, 1991; Wilson, 2008). As explored in chapter one, the physical environment is significant to how children learn and develop. Speaking to this, Gibson (1979) developed a *theory of affordances*. Affordances are the functions of the

environment, and the opportunities that materials and physical space provide for human beings. In other words, affordances can be defined as what the environment can afford to give to a child (Gibson, 1979). Each environment or landscape carries different opportunities. For instance, a nearby tree may offer overhanging branches to learn how to build shelters or pretend to be dinosaurs. In contrast, a nearby river has water where a child can explore insects that live within it. Although both of these spots are considered 'natural' non-human environments, they both differ in their affordances.

To take Gibson's (1979) notion further, not all spaces are created equally in the level of affordances. Rather, the spaces which are considered safe tend to be the areas which are low in their affordances (Fjortoft & Sageie, 2000). For instance, an empty room is considered a highly safe environment for a child to play in. Yet, it does not offer opportunities for creative and spontaneous play as much as an overgrown forest, which may be considered as dangerous for a young child. Traditional early childhood environments, such as indoor childcare spaces or playgrounds, are designed specifically with young children's safety as one of the main priorities. This prompts the argument that non-human constructed forest landscapes offer a great amount of risk and affordances, and thus, should be cherished and incorporated in a young child's everyday life (e.g. Fjortoft & Sageie, 2000).

### **2.3. Theory of Loose Parts**

In addition to the understanding that physical settings differ in their affordances, there is a general consensus in the early childhood outdoor literature that the quality of an early childhood environment is linked to quantity and quality of loose parts available in that setting. The 'theory of loose parts' was first proposed by Nicholson (1971) who states that children are born curious to interact and actively explore their surrounding environments, and loose parts allow young children to fulfill their need to discover, invent and imagine. Loose parts are defined as open-ended, synthetic or natural materials which can be manipulated in multiple ways depending on the child's imagination (Nicholson, 1971).

In early childhood educational literature the idea of loose parts is frequently discussed, with theorists arguing that the outdoors naturally offers an abundance of loose parts that cannot be pre-planned or staged by a teacher. The availability of loose parts allows young children to take initiative and engage in complex imaginative play and invent according to their own preferences. It can be argued that children often prefer a disorderly and less-structured play environment filled with loose parts over a traditional playground strategically designed for young children (Wilson, 2008). Playing in an outdoor environment that may be disorganized provides an ample amount of loose parts may encourage the children to create, dramatize and engage in complex and positive play behaviours (Wilson, 2008).

## **2.4. Children's Outdoor Experiences**

So far I have introduced and explained two concepts that offer a premise of young children's outdoor play experiences: the theory of affordances (Gibson, 1979) and the theory of loose parts (Nicholson, 1971). These theories claim that physical settings impact children's play behaviours. Specifically, they suggest that settings with a variety of flexible and open-ended materials encourage children to engage in more complex play experiences. While conducting my literature review, I discovered that many scholars draw upon these two theories in their discussions, frequently arguing that forest environments offer children with an abundance of such open-ended and flexible play opportunities.

Given the above considerations, I devote the next portion of the literature review to explore the insights past research has gained from childhood experiences in natural forest environments. Forest environments include small or large patches of wilderness found in areas of yards, neighbourhoods, forests and parks. I tailor my literature review to an exploration of my thematic findings. In the analysis chapter of my dissertation, I point to the interesting diversions and additions that can build upon this literature. The studies that are included in this section have two central commonalities. First, I sought out relevant research with centres on natural forest environments. This includes forest programs, but also unkempt schoolyards, parks or dwellings. Second, the literature review had to focus on young children's direct *experiences*, as it is non-directive and

speaks to my research focus. By following these two commonalities, I became familiar in what research is claiming about young children's outdoor experiences. The following portion of the literature review is divided into eight sections exploring: (1) *physical activity*, (2) *challenge and risk*, (3) *various weather conditions*, (4) *various perspectives*, (5) *enjoyment*, (6) *imagination*, (7) *curiosity and empathy*, as well as (8) *fear*. Although I have categorized these separately in their own sections for clarity, it is important to emphasize the overlapping and intertwined relationship of these themes within this research.

#### **2.4.1. Physical Activity, Challenge and Risk**

##### ***Physical Movement and Activity Levels in Forest Environments***

A large portion of research focuses on children's physically active experiences in outdoor landscapes. Children are often seen being active and frequently challenging their bodies. Kaarby (2003) conducted video observations of how children behave in two Norwegian forest preschools over a 12-day period. Physical activity was especially predominant in the young children's experiences, where they are noted to frequently climb, jump, run, and balance on various challenging terrains. This is also seen in Kirby's (1989) research investigating children's behaviours in outdoor, refuge areas. Kirby (1989) noticed children's attraction to unkempt areas of a schoolyard. The participating children used their physical bodies to challenge, move, and construct shrubs, dirt and overgrown grass in their play (Kirby, 1989). In their study focusing on children's play behaviours in a small Norwegian forest, Fjortoft and Sageie (2000) claim that, due to the versatile landscape and rough terrain, a forest may provide children with a variety of physical challenges that may not be seen in a typical schoolyard.

studies by Stroli and Hagen (2010) and Waters and Begley (2007) report contradictory results about physical activities in a forest. In their mix-method study using 16, three to five-year-old children, Stroli and Hagen (2010) found that children's physical activity levels in a forest reflect the child's typical range of activity level. Their results illustrate that the children who were sedentary in playgrounds were also sedentary in natural environments (Stroli & Hagen, 2010). However, in a small-scale exploratory study, Waters and Begley (2007) have opposing results while observing a four-year-old

boy and girl playing in a school playground and a forest program. The boy is described as a 'risk-seeker,' and the girl was known to comply with rules and be a 'reticent risk-taker.' The findings show that both children engaged in a deep level of risk while in the forest program, including the 'reticent risk-taker' girl who typically employed sedentary play activities in the school playground. In the forest program, both children are said to engage in deep levels of tree climbing, balancing, swinging, running and other high-intensity and skill-mastering activities (Waters & Begley, 2007).

### ***Challenge and Risk-Taking in Forest Environments***

Along with physical experiences, it is frequently argued that outdoor environments provide greater risk-taking opportunities in comparison to environments specifically tailored for child's safety in mind (Sandseter, 2009; Smith, 1998; Stephenson; 2003; Hart, 1979; Archen, 1990; Ridgers, Knowles & Sayers, 2012; O'Brien & Murray; 2007). From a very young age, children inheritably seek out physical risk in their lives (Smith, 1998; Stephenson, 2003; Maynard, 2007). Yet, I noticed a growing discussion about play environments becoming too 'safety oriented' in the contemporary Western world, which may hinder a child's inborn need to attempt physical risk in their play (Trimble, 1994; Sandseter, 2012). In these studies, for an activity to be considered risky, it involves the children "attempting something one has never done before, feeling on the edge of being out of control – often because of height or speed – and overcoming fear" (Sandseter, 2009, p.93). It is an activity that allows one to step outside of their comfort zone (Smith, 1998) and "provides children with an optimal experience of arousal, excitement, fun, merriment, joy, and light-heartedness" (Sandseter, 2009, p.93). Sandseter (2009) points out that risk taking is a crucial aspect of learning about personal strength as well as one-self, and it is the right of early childhood, as it allows children to remain healthy in all developmental domains. Little, Wyver and Gibson (2011) concur that, although the immediate safety of children should be taken into consideration, the long-term benefits of self-confidence are compromised in low-risk environments.

Using a phenomenological perspective, Sandseter (2009) draws attention to the types of behaviours three to four year-old children experience when engaging in risky-play behaviours. In the study, the children continuously experienced the interchangeable emotions of exhilaration and fear. For instance, smiling, squealing with excitement but

also crying, whining and moments of apprehension were experienced. It was concluded that the children experienced risky play by exhibiting high emotions of joy and fear interchangeably. Yet, the emotion of fear cannot overcome exhilaration, as the children in the study opted out from the play scenario otherwise. Sandseter (2009) categorized risk taking into three different types: (1) play with heights (jumping, climbing); (2) high speed (swinging, running down and up steep terrains); and (3) rough-and –tumble play (wrestling, play fighting, chasing, and fencing with sticks. This is also found by Stephenson (1999; 2003) while documenting four-year old children’s enthusiasm for risk, noting that children in the study often made statements of pride while smiling and dancing after the risk was accomplished. It seems that for many children, the interchangeable feelings of joy and fear is the goal of risky-play, where the children constantly seek behaviours which will bring them pleasure yet heighten their fear (Sandseter, 2009).

Researchers claim that children often seek out risk in their play, yet also need comfort with their surroundings for their risk-behaviours to increase (Hart, 1979; Stephenson, 1999; Van Arcken, 1990; Ridgers et al, 2012; O’Brien and Murray, 2007). Through his time observing young children’s outdoor street play, Hart (1979) found that children seek out challenging situations in their play. This is also explored by Stephenson (1999) in his observations of chasing-games, as he found that young children consistently want to engage in physically challenging behaviours. Van Arcken (1990) notes that boys in the study especially had this heightened desire to be physically challenged, stating that: “not only does a tree entice them to start climbing and a ditch to start jumping, it is also as if they feel they have to conquer the thing that challenges them... [and] if there is no real adventure, they make one up” (p.90). Stephenson (1999) found a similar observation through ethnographic research in a kindergarten centre. Stephenson (1999) observed that the kindergarten children often proclaimed self-focused statements such as “look at me!” or “watch what I can do!” and less of “look what I made” external-object type comments. Yet, by exploring six to seven-year-old children in a forest program, Ridgers et al (2012) found that the children first require familiarity in the forest to take risks within it. This was also echoed by O’Brien and Murray (2007) in a study recounting forest program experiences of 24 children in Wales, England. The children’s comfort and confidence in physical risk-taking grew

considerably throughout the eight month period, as they were more eager to explore their surroundings.

#### **2.4.2. Various Weather Conditions**

In her work, Carson (1965) reflects upon spending time in nature with her nephew, watching the stars on a clear night and experiencing rain transforming the forest. Recent empirical studies explore experience of weather as well. By observing 46, five to seven-year-old children in a Norwegian forest kindergarten, Fjortoft (2001) found that the children's interaction with outdoor elements changed throughout the seasons. The cliff which the children climbed on in the summer transformed into a slide in the wintertime where parts of it were covered with ice. The snow in the wintertime also made branches easier to reach and thus, children were able to attempt climbing new trees. Stroli and Hagen (2010) found the same in their observations of children's activity levels. The winter was quite unique from the summer, where the children engaged in ice breaking, sledding and snow-ball games. Such findings offer the suggestion that various weather conditions change a child's experience of the outdoors, and thus, their experience is based on, or limited to the opportunities that the setting offers them with.

Dowdell, Gray and Malone (2011) explore the impacts of weather conditions from a different perspective. Their study compared two child care centres with opposing philosophies. One child care emphasized and devoted extended amounts of time to outdoor play, while the other was centered in an indoor, metropolitan location with limited outdoor time. Dowdell et al (2011) found that the children in the outdoor-focused program were more eager to go outside during various weather conditions, and explore the various play opportunities that the weather conditions offered them with. Further, the children in the outdoor-focused program were more knowledgeable about the weather-appropriate clothing attire, as well as on how the climate changes throughout the seasons (Dowdell et al, 2011). By comparing two settings, Dowdell et al (2011) offer the idea that children who spend time outdoors in various climates may be more willing to take advantage of various weather conditions as well as become knowledgeable about proper clothing attire and preparation.

### **2.4.3. Various Perspectives: ‘Nooks’ and ‘look out’ towers**

Scholars illustrate that children often prefer to construct and spend time in shelters (otherwise known as refuges or forts) while outdoors. For instance, in mapping the behaviour of 26, four-year-old children in a half-acre playground, Kirkby (1989) found that over half of their time was spent exploring look-out points and small refuges. What was surprising was that these refuges only covered one tenth of the entire playground space. When asking the children to explain their preference for such outdoor refuges, Kirkby (1989) noted responses to express self-protection and security: “Because I could see,” “because I could hide from you,” or “because there are wolves out there” (p.8). Heerwagen and Orians (2002) add that an ideal place of refuge is one which has physical boundaries, while also offering look-out points. In Derr’s (2006) study, for example, a young child created a ‘mighty jungle’ which he could climb on or hide in by using rocks and leaves, and included ‘chairs’ constructed from boulders and crevasses for caves. Lastly, Hart (1979) and van Arcken (1990) claim that children seek out relaxing and isolated areas that provide calmness, such as near flowing water, where children expressed that they like to just ‘sit there’ occasionally and rest. Thus, these scholars suggest that young children may prefer playing in small refuges or experience various vantage points while in the outdoors. The reasons for this may range from feeling comfort, self-protect from potential threats and perhaps experience solitude or calmness.

### **2.4.4. Playfulness and enjoyment in Forest Environments**

Literature highlights the experiences of playfulness and enjoyment that children may have while in natural, outdoor environments. While describing the cheerfulness that two naturalists experienced while spending time in nature in their childhoods, Nabhan and Trimble (1994) note: “the girls would spend hours, alone or together ‘back in the rocks,’ acting out dramas, staging dances, mounting expeditions, or watching clouds roll by” (p.13). Similarly, Pelo (2013) reflects upon discoveries, excitement and joys that she experienced outdoors with a two-year-old girl, named Dylan. She noted Dylan’s delight and enthusiasm for the things she experienced outdoors, whether it was seeing a blossoming sunflower or discovering a new creature she had not seen before.

In a case study exploring six to seven-year-old children's perceptions of their time within a forest program, Ridgers et al (2012) claim that young children often experience a sense of freedom and fun in the forest. The children in their study expressed a pleasure of choosing the activities they preferred, without a predetermined curriculum or strict limitations. Greenfield (2004) too found that children in her study preferred to spend time outdoors. The study incorporated a child-centered methodology by giving cameras to five, four-year-old children to explore their views on outdoor play. The children expressed their preferences for active, free, imaginative play and freedom. For instance, a four-year-old boy in the study expressed his feelings about playing outdoors: "It's fun... Inside you have to be quiet, outside you can run around" (Greenfield, 2004, p.4). However, these results are contradictory to what Sandberg and Vuorinen (2006) found. In their study of young girls' experiences of outdoor play, the children mostly expressed preference for indoor activities, and playing with popular toys, such as 'Barbie' or 'Bratz Dolls' (Sandberg & Vuorinen, 2006). This finding is surprising, as it suggests a divergence amongst researchers regarding the popular view of the outdoors as being a cherished experience for young children.

## **2.4.5. Imagination**

### ***Imaginary play in forest environments***

Early childhood scholars frequently claim that outdoor environments support and stimulate young children's imagination. For example, Shim, Herwig and Shelley (2001) highlight the behaviours children engage within the natural world. They studied 41, two to five-year-old children's play behaviours in indoor and outdoor environments by videotaping and quantitative analysis using the *Parten-Smilansky Play Scale*<sup>1</sup> to create comparisons between indoor and outdoor play quality. Shim et al (2001) found that, even though the teachers did not provide toys, the children's play was more complex in the outdoors. Other scholars note that children often prefer natural refuges while playing outdoors, or bushes which are typically thick and dense, and served as ideal places to use as canopies for imaginary games (Hart, 1979; Kirby, 1989; Canning, 2013). For

<sup>1</sup> The Parten-Smilansky Play Scale is an observation instrument which integrates social play and cognitive play categories into 16 categories of peer interaction (Shim, Herwig & Shelley, 2001).

instance, in Fjortoft's (2001) study, children frequently associated their favourite outdoor play spaces with activities that required high imaginary play, naming spots such as "the cone war," or "the space ship" or "the cliff" as their favourite places to play outdoors. Both Hart (1979) and Canning (2013) highlight in their independent studies that the participating children favoured rich and dense shrubs or bushes to use as canopies for rescue from pretend dangers. Kirby (1989) study of outdoor play notes that children's imaginary play deepened while playing in natural refuges. In comparing three refuges, two of which were naturally occurring and one which was constructed, higher amounts of imaginary play occurred in the largest of the vegetative refuges which contained branches, trees and bushes and were 'less uniform.' Kirby (1989) found that the natural refuges were high in plasticity, or in other words, the degree of availability of manipulative material and loose parts. The higher plasticity an area had, the more opportunities it gave for imaginative play (Kirby, 1989).

Next, literature also explores the use of natural artefacts for outdoor, imaginary play. By observing and interviewing six children between two and six-years-old in both urban and nature-inspired childcare centres, Dowdell et al (2011) found that the children often used natural artefacts in their imaginative play. Bushes, trees and stumps were used as homes; leaves, cones and berries as pretend food; trees were shaken after rain to use as a shower; gathering sticks to make pretend fires or and needles to sleep on for beds. The natural artifacts also provided the children with inspirations for action games, using trees as ships, sticks as guns and bushes as hiding spots for their lively, adrenaline-driven games (Dowdell et al, 2011). Änggård (2011) notes that outdoor forest environments offer opportunities to run and play active games, such as playing chase. Family-oriented play, such as cooking, taking care of babies, and playing 'house', was distinctive in Änggård's (2011) study, particularly with young girls, whereas boys typically engaged in more subordinate roles. Like with Dowdell et al (2011), the children also used natural loose artifacts, such as pinecones or sticks, in their play. Lastly, Änggård (2011) notes that the participating children engaged in frequent animal play while outdoors, where they imagined being animals. Such imaginative animals were both 'ordinary' such as dogs, cats, birds, spiders, and 'exotic,' such as sharks, wolves, tigers, and snakes. Again, the natural landscape of the forest was used for this imaginary play,

such as forming nests, holes, caves, or running through terrains pretending to be wild animals (Änggård, 2011).

Lastly, there is also a discussion in regards to the influence that popular culture and media has in children's outdoor, unstructured play behaviours. For instance, Änggård (2011) claims that preschool boys are often inspired by their media-toys from home, such as referring to 'LEGO' action figures while throwing pretend bombs. Änggård (2011) also observed girls referencing Disney characters such as Bambi or Thumper in their forest play. Änggård (2011) notes that, the participating children's play behaviours often reflected their regular routines, such as pretending to visit McDonalds or shopping at Ikea. Inspired by phenomenology and anthropology, Melhuus (2012) sought to explore how 13 children, aged four to six years, experienced a Norwegian outdoor daycare. By collecting field-notes, video observations, and map drawings for three consecutive months, Melhuus (2012) states that, through play, the partaking children made links between the forest and home lives – whether it included social media or cultural upbringing. Although the findings by Änggård (2011) and Melhuus (2012) imply similar insights, in that young children's imagination is heavily influenced by what they know, and the experiences that they have in their lives.

### ***Super-Hero Aggressive Play***

Early childhood outdoor literature suggest that boys in particular engage in frequent aggressive play while outdoors (Änggård, 2011; Stephenson, 1999; Arlemalm-Hagser, 2006). Änggård (2011) observed a group of three to six-year-old boys, and notes that the boys in their study frequently engaged in high energy, loud activities such as shooting pretend guns. This is parallel with Stephenson's (1999) observations of the increase of aggressive play amongst boys while playing outdoors. Stephenson (1999) saw young boys engage in 'little superhero play,' where boys frequently imagined to be superheroes and frequently pretended to initiate wars, become vampires or saved banks from robberies. Lastly, Arlemalm-Hagser's (2006) conducted interviews with 55 girls and 51 boys from a Swedish preschool, and note that natural artifacts such as twigs or rocks were used in war-type games. Arlemalm-Hagser's (2006) captured the boys' explanation: "we have twigs as swords and guns... and pretend that we kill each other." A seven-year-old boy added a description: "[we play] war games with twigs, there is

someone who's the good one and another who's the evil, [and] then we have pretend fights with our twigs" (p.34). Similar to the above discussion, these authors point out that the outdoor setting offers the potential to provoke various types of imaginative play while in the outdoors, depending on the children's interests and personal preference.

#### **2.4.6. Curiosity and Empathy**

##### ***Curiosity***

Research increasingly links outdoor environments with a child's increased curiosity (e.g. Dowdell et al, 2011; Wilson, 2008; Golden, 2013). In their comparison study between experiences of indoor and outdoor childcare centres, Dowdell et al (2011) found curiosity to be quite active in the outdoor-focused child care centre. The children are noted to have many discoveries while outdoors, often discovering ladybugs, slugs or spiders for example. Upon their discoveries, the partaking children sustained prolonged interest with the creatures and natural elements which they encountered. This was in contrast to the metropolitan child care centre, where Dowdell et al (2011) found the children to often change their activities in their play, suggesting the lack of environmental stimulation in their environment. Wilson (2008), in her reflective writing, claims that young children are genuinely curious about the natural world, especially towards animals or living creatures. They show this interest through discovery, as well as attempting to 'become' or embody the animal through pretend and imaginative play. Golden (2013), in the study of investigating three-year-old children's forest experiences, notes that a forest is an ideal environment to explore children's curiosities about their surrounding world. In Golden's (2013) study, the children formed meaning to their experiences by drawing, taking photos, sculpting from clay and mapping, as well as using documentation as a tool to record children's experiences. Golden (2013) highlights the prolonged curiosity that the children had expressed for various features in the forest, and claims that small areas of wilderness equally offer opportunities for rich discoveries for young children. Such studies (Dowdell et al, 2011; Wilson, 2008, Golden, 2013) state that due to the complexity of outdoor environments, children's curiosities heighten as they engage in various encounters with the natural surroundings.

### ***Empathy and 'sense of place'***

A 'sense of place' is the intimate relationship that humans develop to a physical setting they frequently visit. It can extend to empathy, emotional attachment, meaning and a sense of ownership (Derr, 2002). In early childhood outdoor literature, there is a discussion specifically about the sense of place children may attain upon spending repetitive amounts of time in a forest space. When children interact with a natural area, they have a greater chance of developing an empathetic outlook to the natural elements found within that space. It is also suggested that, if children develop a positive relationship with one particular outdoor space or the features within it, it will eventually be generalized to the natural world as a whole (Sobel, 1990; Derr, 2002).

Derr (2006) conducted ethnographic research study of children's 'sense of place' experiences living in the mountains of Northern New Mexico. The data collection methods included semi-structured interviews with 86 young children, as well as conducting in-depth case studies of 16 families who were living in the mountains. Conclusions illustrate that the participating children had greater access to wilderness, and thus gained a deeper connection with the natural world. The children spoke about pleasant feelings of harmony when discussing their special places, as one participant explained her playing spot: It is "pretty cuz of the way the river sounds...[and] because there's all these birds there, and flowers, and...Sometimes the birds sound like the fish moving in the water" (p.114). Similarly, Hart (1979) illustrates that such bonds to land could also be formed with trees. The children in his study had been returning to the same tree spots time after time, as Hart (1979) writes: "It was clear in the place preference data how much more valuable trees were to the children than any play equipment" (p.203). Hart (1979) mentions that the space underneath the trees was also cherished by the young children, as the untamed grass and dirt served as ideal canopies where children dug up dirt to create miniature landscapes or figures hours at a time.

Sobel (1990) notes that forming such emotional attachments, or in other words, having 'special places' in natural landscapes, such as the ones presented above, is common to children in all cultures. Upon interviewing 200 children and 100 adults, Sobel (1990) found that the special spots shared the commonalities of being built independently by the child, kept secretive and the children ascribed feelings of

ownership and brought them feelings of calmness and safety (Sobel, 1990). Thus, spending prolonged time in a natural spot may provide the opportunities to gain greater acquaintance with the spot's small, intimate details that may not be noticed otherwise. This may then transform into feelings of care and attachment towards that spot (Carson, 1965; Van Arcken, 1990).

#### **2.4.7. Fear**

There is a dialogue in early childhood literature about young children attributing fears or negative perceptions about forest environments (Hart, 1979; Heerwagen & Orians; 2002; Ridgers, Knowles & Sayers, 2012; O'Brien & Murray, 2007). Heerwagen and Orians (2002) suggest that the highest fears of forests for children five years or less are of "darkness, the supernatural (ghosts and witches), storms and being alone" (p.43). Hart (1979) agrees by stating that the partaking children ages six and older were frequently afraid of forested areas and dark, unfamiliar settings. Gravett (2013) notes, in the documentation of preschool children's experiences in a nearby forest, that the children had irrational fears and expressed dangers. For instance, one child had a fear of snakes even though snakes were not known to exist in that forest. It was suggested that the fear was related a connection the child made between snakes and the structure of a tree, particularly its curved branches. To the child, the branches had the same shape as snakes he had seen before. Other fears included getting lost, sinking in the nearby river and falling off (Gravett, 2013). Fears of animals are also shown to be common amongst four-year-old children, specifically dogs, bears and wolves as well as storms, fires and other natural hazards such as fast-flowing water, heights and sudden drop-off cliffs.

Fears or negative perceptions about forests relate to the amounts of exposure a child has had to a 'wild' space, as well as the type of information they had attained about the forest in their everyday lives, whether through negative past experiences, media, family, friends or in their communities (Heerwagen & Orians, 2002; Ridgers et al 2012). Such negative perceptions are noted by O'Brien and Murray (2007) in their forest kindergarten study, where the participating children were said to feel uneasy in the forest at certain times. This was especially apparent when the children got their clothes wet,

muddy and experienced physical discomfort during harsh weather conditions, as well as with the children who were new to the forest program (O'Brien & Murray, 2007). Conversely, overcoming fears is related with positive exposure. As the more positive experiences a child has in a forest, the more they become comfortable to play and explore. This was touched upon by Melhuus (2012), as there was a dialogue about a newly immigrated child who took a while to become comfortable to engage and play in an outdoor kindergarten.

## **2.5. Areas of Investigation and Rationale**

Although the literature review points to some discrepancies of how children experience the outdoor world, it seems that there is a large focus on positive experiences. This prompted me to further inquire on children's experiences, specifically whether my findings would align with the experiences that the children in past studies had undergone. Next, I propose my research will fill in a methodological gap. Although there were some studies incorporating hermeneutic phenomenology, the majority of reviewed research stemmed from an ethnographic perspective, whether from the education discipline or environmental psychology. Through conducting my dissertation, I had the opportunity to spend prolonged time with young children in a forest program. With my prior knowledge in the early childhood field and the relationship that I gained while on site with these children, I hold the knowledge to adapt data collection methods that respond to the needs of these children, ensuring that their personal experiences are authentically listened to. I also address a concern expressed by Davis (2009) that there is an absence of early childhood educators focusing on issues related to the environment and sustainability.

By involving children's voices and incorporating an interpretive lens, my dissertation contributes to the scholarly literature on young children's experiences in a forest program, by addressing the question: What are four-year-old children's experiences in a forest program? To note, phenomenological research with young children aims to gain insight on how children experience and attend to the world. The purpose is not to explain or theorize upon their behaviour or experience in the forest, but rather, as Greene and Hogan (2005) echo, "to strengthen our senses of what it is like to

be a child, to live in a world as a child” (p.5). Thus, the purpose of my dissertation is not to proclaim that one environment is dominant over another. Rather, I strive to add to the conversation of how young children may experience the physical world, and in particular, a forest program in our current place and time. With this, I also strive to provide caregivers with insights for reflection and dialogue in relation to bringing young children into forest environments.

## **2.6. Chapter Summary**

My objective of this chapter was to review the literature surrounding young children’s experiences in the outdoor, natural environments, including parks, communities, yards, and forests. I began the chapter by introducing the two theories that underpin scholarly research of young children’s experiences in the outdoors: theory of affordances (Gibson, 1979) and the theory of loose parts (Nicholson, 1971). Following this, I explored early childhood literature focusing on young children’s experiences in outdoor environments. These insights illustrate the consistency of findings amongst research, but as well the dichotomies in the experiences young children are shown to have. I end the chapter with a rationale for my present study.

## **Chapter 3. Methodology**

### **3.1. Chapter Overview**

I will begin this chapter by providing a theoretical framework and a description of hermeneutic phenomenology. I explain the philosophic roots of hermeneutics and phenomenology, as well as specifying van Manen's (1990) influence on my analysis. I strive to give detail of the methodological logistics, including data collection and tools, procedure, analysis, ethics, and criteria for rigor.

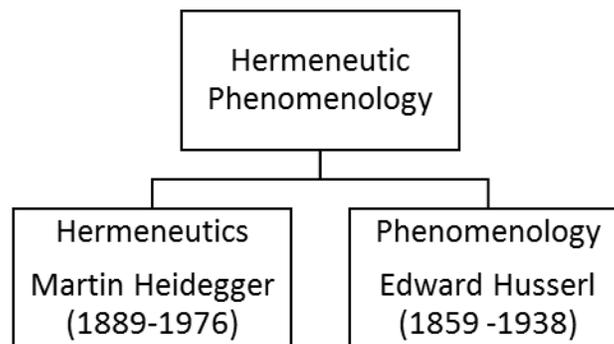
### **3.2. Theoretical Framework**

I support my investigation through three lenses: (1) the social constructivist perspective, (2) a participatory view of early childhood research, and (3) ecopsychology. First, the social constructivist perspective speaks to my belief that knowledge is constructed by human beings. It recognizes that truth is subjective, influenced by individual worldviews, cultures, family dynamics and past experiences. Children's learning is believed to be a product of social interactions and the surrounding environment (Chiari & Nuzzo, 1996; Crotty, 1998; Gardner & Kosmitzki, 2008). Second, as opposed to the traditional viewpoint of children being 'incomplete' versions of adults, this study was shaped by the understanding that young children are active beings and experts in their own lives. Young children hold the capability to stand as active participants, reflect and express their voices on topics concerning their daily lives and wellbeing (Clark & Moss, 2004; Greene & Hogan, 2005). Third, although there are various ways one may study eco-psychology (Kahn & Hasbach, 2012), I adopt one that I feel is most relevant to my study which describes eco-psychology as a non-hierarchical relationship between humans, others, objects and nature, in which all are inherently dependent on one another for survival (Kahn, 2013). This perspective recognizes that

direct interaction with nature positively affects human development in all realms of wellbeing (e.g. Davis, 2004).

### 3.3. Foundations of Hermeneutic Phenomenology

Traditional research methods set out to pursue knowledge. The methods assume that there is a single truth to be discovered and the research methods are designed to eliminate the skewing of researcher subjectivity which distorts that one ‘truth’ (Polkinghorne, 1989). Hermeneutic Phenomenology draws from a different perspective in believing that knowledge is constructed rather than discovered. Subjectivity, as a part of this construction, should not be ignored or ‘washed’ away by methods (Polkinghorne, 1989). Rather, hermeneutic phenomenology is a process of gaining insights from ongoing reflection without following one pre-determined method (van Manen, 1990; 2014). Unlike traditional research methods, the approach acknowledges the impact of the observer on those being observed, and does not claim to unveil explanations or an objective truth (van Manen, 1990; 2014).



**Figure 3.1. Hermeneutic Phenomenology**

Hermeneutic phenomenology combines two distinct ideologies: hermeneutics and phenomenology (Kakkori, 2009). *Phenomenology* is a compound derived from *phenomenon* meaning “thing” and *logos* meaning “word” (Munday, 2009). It was first established by Edward Husserl (1859 – 1938) and employs ‘bracketing’ to eliminate the researcher’s subjective lens to gather participant narratives of the studied experience

(van Manen, 1990). By bracketing the researcher's subjectivity, it is believed that the true essences of experience would be revealed (Munday, 2009). Husserl (1970) used the now-famous phrase, "back to things themselves" to explain the process of phenomenology as reducing the experience to the original essences of how they are, free from the subjectivity of the researcher. Contemporary philosophers such as Giorgi (1970) still employ Husserl's pure phenomenological stream of methods, developing step-by-step, chronological procedures to follow in order to reveal the essences of an experience without researcher subjectivity. Conversely, *hermeneutics* focuses on the art of interpretation. It stems from the Greek word, *hermeneuin*, which means, "to interpret" (Wilcke, 2002) and derives from the Greek god Hermes, who "made the unknowable knowable through the invention of language and writing" (Wilcke, 2002). The understanding behind hermeneutics is that truth is always an interpretation. It was first used to interpret scripture and biblical texts, but it was Friedrich Schleiermacher (1768 - 1834) who first adapted the hermeneutic practice outside of the biblical tradition, which then transformed to studying human sciences (van Manen, 2014). Schleiermacher acknowledged that texts should be read with an open mind and as a whole – seeing the text as a whole rather than fixating on a singular phrase, as well as recognizing the historical origins of the text.

As I had outlined in the above diagram, Martin Heidegger (1889 - 1976) was a scholar of Husserl but diverged from Husserl's traditional sense of phenomenology and built upon Schleiermacher's ideas. Heidegger rejected two of Husserl's concepts (Spiegelberg, 1982). First, Heidegger disagreed with the division that takes place between the researcher and subjects. One cannot simply 'flush' themselves from their own preconceptions, as it is a part of human science analysis. Instead, Heidegger believed that description *is* interpretation (Heidegger, 1962; Creswell, 2013; Maruna & Butler, 2005; Bentz & Shapiro, 1998). Second, Heidegger believed that there is no such thing as the one fundamental 'truth' that Husserl highlights. In fact, the truth is ever-changing, and a description is an interpretation of how reality is perceived (Heidegger, 1962; Ezzy, 2002; Lavery, 2003). I appreciate these two aspects of hermeneutic phenomenology, as it not only accepts the subjectivity of human experience, but this concept recognizes that my childhood experiences and my own experiences in the forest cannot be ignored, and instead recognizes the role these play in my analysis.

Hermeneutic phenomenology is the practice of reflection on the *lived experiences* of human beings (van Manen, 2007). Lived experience (or *Lifeworld*) is the pre-reflective consciousness of everyday life (van Manen, 1990; 2007). The task is then, to understand and create meaning, and perhaps bring the hidden or 'taken-for-granted' into light. As there is an absence of prescribed steps in undergoing hermeneutic phenomenology, it is vital to first understand the primary concepts of its philosophy, including: (1) Dasein, (2) Embodiment, (3) Fusion of horizons, (4) Hermeneutic circle and (5) Play.

### **3.3.1. Dasein**

Heidegger (1962) focused on *Dasein*, which he describes as 'being-with' or being-in-the-world. Dasein is concerned with being self-aware of your own existence in the world. It's the core of our human capabilities to reflect about our own life purpose, and the knowledge of our own existence (Heidegger, 1962). Dasein recognizes the uniqueness of humans being self-aware of their own abilities for decision-making, offering the idea that human beings have the ability to interpret their own experiences (Mulhall, 1996). The meaning of 'being-with' emphasizes that human beings always form a sense of understanding based on their immediate environments and interactions, which they are in relation to (Smith, Flowers & Larkin, 2009). Dasein informs my data methods and analysis by acknowledging that all humans hold the capability to make meaning of their experiences. This relates to the young children's competence to reflect, and my role as the researcher, as my reflection also informed interpretations.

### **3.3.2. Lived Experiences through Embodiment**

Children experience the world through physical embodiment; interacting with their environments through their actions (Merleau-Ponty, 2002). Paying attention to their gestures and actions as well as their tone of voice offers a glimpse of the way each one of them experiences the world. Capturing such forms of expression adds knowledge and understandings to these children's experiences of the forest program. If we are attentive to embodiment, certain truths may arise that we did not know were there (Merleau-Ponty, 2002; van Manen, 2014). Thus, I include a reflection upon children's behaviours,

expressions, silence, speech and tone to reveal the aspects of their experience pure speech could not capture.

### **3.3.3. Fusion of Horizons**

The term 'horizon' is defined as a particular perspective or vantage point one holds towards the world that is conditioned by tradition and history (Gadamer, 1975). It is a form of predetermined judgement that each of us bring into a particular situation (Tesch, 1987). In my research, fusion of horizons is formed by 'fusing' two or more perspectives, including mine and the children's, on the forest experience together to create shared meaning through dialogue (Smith, Jarman & Osborne, 1999; Gadamer, 1975). When we engaged in a dialogue, the unity of the horizons formed new, deeper understandings (Gadamer, 1975). This fusion is not static, as it evolves in a constant state of movement. Meaning is impossible to conclude, as it is boundless, temporary and evolving (Gadamer, 1975; Sammel, 2003). The fusion of horizons implies that meaning of the forest experience is created by interpretation, rather than waiting to be discovered. Thus interpretation is subjective, varying with the interpreter.

### **3.3.4. Hermeneutic Circle**

Understanding involves the active presence of the interpreter. By being active in the process, the interpreter must pay attention to one's own preconceptions as well as the context of the new knowledge (Schleiermacher, 1977). One way to understand preconceptions is to examine them through the *hermeneutic circle*. It first begins by the individual exploring their personal pre-conceptions. As one gains new 'parts' of the studied experience, they relate the 'part' to their whole understanding, as well as questioning how their overarching understanding relates to the new 'part.' Simply put, the hermeneutic circle follows the presumption that to understand something, one must already have some prior understanding of that particular work. Instead of dismissing or avoiding our prejudices, we should embrace them as a part of knowing. It is in this process of a hermeneutic circle that new insights are made and where the studied experience is reduced to the core of the experience (Schleiermacher, 1977; Gadamer, 1975). As Gadamer (1975) elaborated:

Understanding is always a movement in this kind of circle, which is why the repeated return from the whole to the parts, and vice versa, is essential. Moreover, the cycle is constantly expanding, in that the concept of the whole is relative, and when it is placed in ever larger contexts the understanding of the individual element is always affected (p.167).

The dynamic process of the hermeneutical circle is not linear and can never be finished. The circular process is necessary, as interpretive methods need time to be understood and make meaning (Gadamer, 1975). As with art, it is the researcher's obligation to decide when to 'cut-off' the hermeneutic circle, at a time where new information is enough for the essences of the experience to be revealed. The philosophy of the hermeneutic circle is what informs van Manen's (1990) method of interpretation, which I use in my analysis. In my methods, I integrate Gadamer's *Fusion of Horizons* to dialogue through the modes of creative data collection, observations and ongoing personal reflections.

### **3.3.5. Play**

Gadamer's concept of play is also integral to hermeneutic phenomenology. The researcher and participants are not considered as outsiders or objective thinkers. Rather, they act like 'players' in a game in which the experience itself changes the person experiencing it (Gadamer, 1975). The form of 'play' that the researcher and the participants partake in has an ongoing, circular movement just as with the hermeneutic circle. The players continuously 'give' and 'take' without pressure or strain. The players build upon each other, building on ideas and new knowledge. Hermeneutic phenomenology allows me to incorporate the concept of play, as the children and I act as 'players' in the research process. We play together with different ways of meaning-making, whether it was through photography, drawings or conversations. I listen to the children's needs, interests and cues. I improvise and take risks within the natural movement of their day, as opposed to holding a set research agenda. In this way too, the children partook in the play – as they took risks in exploring their experiences, sharing and choosing to partake or opt-out at times. The interpretative process was circular and contributed the 'back' and 'forth' movement that is essential in the act of play.

In dissecting the research methods of hermeneutic phenomenology, Hein and Austin (2001) as well as Packer (1985) inform us that there are multiple ways one may incorporate phenomenology in research. I chose the methods based on my purpose, my skills and talents and the nature of my specific study (Hein & Austin, 2001). The philosophies of Husserl, Heidegger and Gadamer amongst others are indeed philosophies, and not research frameworks. It is for this reason that I chose to espouse van Manen's (1990) practical approach in fulfilling the methodological criteria for hermeneutic phenomenology.

### **3.4. Van Manen's Approach to Hermeneutic Phenomenology**

Van Manen is a prominent author in the field of education whose work centers on methodological development in hermeneutic phenomenology, hermeneutic reflection and writing (e.g. Van Manen 1984, 1990, 2002, 2014). His creative and poetic method is particularly popular in education including his work developing methods to study children's experiences, and the 'lifeworld' of young children (e.g. Henriksson & Friesen, 2012, p.4.). The nature of my study, concerning young children and their forest experiences, as well as my personal experience being an Early Childhood Educator and growing up with a close relationship with nature, naturally drew me towards hermeneutic phenomenology and van Manen's (1990) approach. His book, *Researching Lived Experience: Human Science for an Action Sensitive Methodology* (van Manen, 1990), especially spoke to my curiosities as it offered a translation of the philosophy to a pedagogic application.

With the understanding that there are no 'fixed' rules of conducting hermeneutic research, van Manen (1990) offers to clarify the use of hermeneutic phenomenology in research by a set of six overarching *methodical guidelines* to provide a workable direction. With these guidelines, van Manen (1990) attempts to integrate the contributions of the key philosophers who developed and expanded the philosophy of hermeneutic phenomenology, including the works of Husserl, Heidegger and Gadamer (Spinelli,1989). These guidelines are quite broad instead of being static and fixed, offering enough flexibility within them to tailor them into my specific research. To

proceed with my dissertation while remaining authentic to hermeneutic phenomenology, I adopt these guidelines. The six general guidelines are as follows:

1. Turning to a phenomenon which seriously interests us and commits us to the world;
2. Investigating experience as we live it rather than we conceptualize it;
3. Reflecting on the essential themes which characterize the phenomenon;
4. Describing the phenomenon through the art of writing and re-writing;
5. Maintaining a strong pedagogical oriented relation to the phenomenon;
6. Balancing the research context by considering the parts and whole.  
(van Manen, 1990, pgs. 30-31).

I take van Manen's advice and approach these in a circular fashion. As I elaborate in Chapter 1, my phenomenological question *seriously interests me and commits me to the world*. Following my personal interests in my research allows me to challenge my notions, reflect onto my experiences and the experiences these children have in the forest, allowing to make sense and gain a deeper understanding of what forest experiences entail. To study these experiences, I went directly to the children and chose to conduct empirical research in *real time* through creative and child centered means of data collection.

Hermeneutic phenomenology intertwines data collection with analysis. To understand a lived experience, one must continuously *reflect on the essential themes which characterize the phenomenon* through the act of journaling. As I elaborate in this chapter, reflection is a critical aspect of my dissertation. Journaling encourages me to have an internal dialogue with myself, revealing my own experiences, memories, new understandings and unresolved research questions. *Describing the phenomenon through the art of writing and re-writing* is a critical aspect of reflection and the hermeneutic process. Through the process of writing, essences of the lived experience are clarified (van Manen, 2006). I found that my ongoing writing allowed me to open up discoveries in my own meaning-making process. It was both a rewarding and frustrating process. As I was astonished about the insights that writing helped me to uncover, the process was frustrating as I stumbled on many mental blocks throughout the messy process of researching the children's experience.

I *maintained a strong pedagogical oriented relation to the phenomenon* by remaining continuously active with the children's experiences in the forest program, volunteering with the children and visiting the forest in my spare time. This kept me focused on the central phenomenon, and allowed me to reflect on the children's experiences as we all encountered the forest over the different seasons of the fall, winter, summer and spring. My relationships with the children, parents, the teacher and the forest drew me closer to the phenomenon, connecting me to the environment and allowing me to be a part of it. Lastly, I *balanced the research context by considering the parts and whole* while collecting and analyzing the children's and my own experiences through writing. At several points, I stepped back and looked at the whole picture, asking: "what does this data show?" As well as "what does this show about the children's experiences?" Balancing the parts to the whole kept me focused, bypassing feelings of becoming lost and buried in my data. This process entails the hermeneutic circle – the back-and-forth movement between parts and whole helped me to gain understandings of the entire picture.

### **3.5. Research Setting**

The research setting is a not-for-profit forest learning program<sup>2</sup> for approximately 50 children aged three to six years. It is located in Metro Vancouver, and operates three times a week (Monday, Tuesday, Wednesday), with two classes daily for three hour intervals (aside from Monday when only a morning class is offered). Children attend this program on a part-time basis while also attending other programs i.e. childcare, kindergarten or being home-schooled. The class is composed of a maximum of seven children, a main early childhood educator, a volunteer, and a parent. This program stemmed out of parents' desire to have a child-led outdoor program for preschoolers in the Metro Vancouver area. The program is in high demand. In the 2013-2014 year, there were approximately one hundred families who applied for 26 spots.

This program is quite unique in its form compared to other programs in early childhood. The most obvious is that it takes place outdoors within a forest environment.

<sup>2</sup> Due to confidentiality, the name of the program will not be stated.

The program does not provide toys, and toys from home are discouraged. However, the program at times does provide open-ended materials, such as rope, buckets, compasses, or shovels as materials for the children to use. Otherwise, objects that children play with are natural and open ended and it is up to the children to create play opportunities and use natural materials to their liking. The children are allowed to climb, jump, run and take appropriate physical risks in the forest. The early childhood educator has a ‘hands-off’ learning philosophy, allowing the children to take acceptable risks, and lead without intervening or taking the authoritarian role in the group. The educator does intervene however when the activities are judged to be dangerous, such as playing near cliffs, climbing on weak or high branches, as well as playing with sticks longer than the child’s arm – as the possibility of harm increases.

### 3.6. Participants

I selected participants that are living through an experience directly related to my research question (van Manen, 1990). Using purposeful sampling (Creswell, 2012), this study involves a group of six four-year old children along with their parents, program director and educator.

**Table 3.1. Participant Breakdown**

Child 1: Oliver	Parent 1
Child 2: Lilly	Parent 2
Child 3: John	Parent 3
Child 4: Joshua	Parent 4
Child 5: Caden	Parent 5
Child 6: Aron	n/a

#### **Oliver**

Oliver is partaking in the program in his second year. He has a younger sister, who visits him to drop him off and pick him up from the program. Oliver is quite outspoken, even speaking in imaginary languages. He also enjoys riding his bicycle on a regular basis outside of the program and talking about his love of bicycles.

**Lilly**

Lilly, who became best friends with Oliver throughout the program, is the only girl in this particular group of children. Like Oliver, she is quite verbal as well and enjoys running, laughing, singing and chatting. Her mother is pregnant with her younger sister, and she is enthusiastic about the experience.

**John**

John is spending his first year at the program. He is deeply passionate about Star Wars and regularly incorporates the Star Wars tune and characters in his play. He enjoys throwing stones and sticks into the river and examines the elements that the forest has to offer. High in energy, he enjoys running up and down on various terrain. He and his parents often go on 'nature' walks throughout the summer in the nearby forest.

**Joshua**

Joshua who is the eldest of three children is also one of the eldest of the group. He is quite calm and reserved, and enjoys drawing and writing stories on paper. Like John, he is infatuated with Star Wars and incorporates it in his play. Although Joshua was shy around me at the beginning, he warmed up and enjoyed running, jumping and exploring new territory. This would be his second year in the program.

**Caden**

Caden, who is expecting to have a younger sister, is the son of the teacher of the program. He is quite reserved, but enjoys taking risks and running throughout the forest. His favourite activity is to log balance and climb, which he experiences on a regular basis.

**Aron**

Aron, who has a younger brother, is his first year in the program. He really enjoys partaking in games with the other children, and like Caden, learning how to balance on logs. He is quite enthusiastic and likes to discuss his favourite game of 'Angry Birds,' as well as explore the new territories of the forest.

### 3.7. Data Collection: Mosaic Approach

To study young children's experiences in the forest program, I incorporated the Mosaic approach (Clark & Moss, 2004) for the children to effectively articulate their experiences. The Mosaic approach is a developmentally appropriate approach that encourages young children to work with adults to create meaning collaboratively in their everyday settings. The method was originally designed to study five-year old and younger children's understandings of early childhood settings (Clark, 2003) by taking the following six characteristics into account:

1. *Following a multi-method approach*: it aims to capture children's authentic voices using multiple data collection approaches. This method recognizes that children have many ways of expressing themselves, which may vary from child to child. Using multiple approaches not only ensures credibility (through triangulation) but also ensures that all of the participant voices are heard and captured, and that the children express themselves clearly.
2. *Participatory* in nature: it acknowledges that children are the experts in their own lives and thus seeks truth from the children directly.
3. *Reflexivity*: it encourages reflection by children, guardians and researcher.
4. *Adaptable to various settings* and research which involve young children.
5. *Focuses on children's lived experience*, which is aligned with the purpose of this study as well as phenomenology.
6. *Framework for listening to the voices and experiences* of young children (Clark, 2005, p. 13]

#### 3.7.1. Rationale for Mosaic Approach

Traditionally, hermeneutic phenomenology relies on complex verbal and written knowledge and would not provoke deep insights from young children (van Manen, 1990). Instead, the Mosaic approach is effective in offering multiple creative modes of communication, (Maruna & Butler, 2005; Veale, 2005; Cole, 2010; Greenfield, 2011) seamlessly aligning with the goals of hermeneutic phenomenology. It allows children to express themselves, while reflecting upon their experiences (van Manen, 1990). The Mosaic approach (Clark & Moss, 2004) respects the children's various ways of knowing and multiple ways of representation. In this study, the Mosaic approach is conducted in two continuous phases. First, the children actively create artefacts using a variety of

creative methods. Second, the children and I work collaboratively to reflect, interpret and form meaning.

### **3.7.2. Research Protocols for Mosaic Approach**

Keeping the Mosaic approach (Clark & Moss, 2004) in mind, I developed the following protocol while collecting data with the children to understand their forest experiences. The next section discusses this protocol, including: establishing my role as a researcher; introducing activities, providing instructions, revisiting artefacts to deepen understandings, flexibility, and journaling about each experience.

#### ***Establishing my role as a researcher***

I balanced various researcher roles throughout my time with the children. At times, I embodied the *least-adult* (Mandell, 1988) role, where I played freely with children engaging and embodying their play in the forest. I also stood in a *directive role* in explaining and presenting the activities (Mandell, 1988; Harwood, 2010). While collecting video recordings for my observations, I stepped into the *detached observer role* by stepping back and allowing children to engage with the forest (Mandell, 1988; Randall, 2012). Reflecting on these various roles I was better able to acknowledge my sense of myself as a researcher.

In my role as a researcher I also felt I was able to give the children the message that they are the experts in their own lives. To do this, I maintained a sense of trust to 'let go' when the children were engaging with a particular activity. I communicated with the children that they were in charge of making decisions about what to photograph, draw or talk about, gaining a sense of control and mastery of an activity. This partnership required trust between myself and the children which I sought to maintain by allowing children to complete activities on their own terms, potentially produce artefacts with personal meanings, and in my recognition that the results may not be as anticipated.

#### ***Introducing each activity at the beginning***

I introduced each activity in 'circle time' to interactively discuss its purpose. When introducing an activity, I endeavored to explain that:

- a. The activity was a part of the research project;
- b. I was working with one to two children at a time so I could give each child individual attention;
- c. The activities were voluntary;
- d. They could include anything they pleased in the activity, as long as it was relevant to their forest experiences.

When possible, I brought in physical examples or the tools necessary for the activity, asked questions regarding their past experiences with the tools, and gave them time to explore or play with the tools they were interested in. For the book-making activity, I constructed a 'mock' version of my own book (as recommended by Carter & Ford, 2013) with my name, the title, and my photograph on the cover of the book. The children were intrigued with the idea and took their role seriously. When the book-making activity was introduced to the children, they asked questions such as "*will I be given tape to stick on photos?*" or "*can you help us write if we want you to?*" I answered questions for them to gain clarity. This was a semi-structured way to introduce the children to the new tool, create trust, and cultivate a sense of research partnership.

### ***Making use of simple and open-ended instructions***

Instructions for all activities were kept simple and open-ended. For example, "*draw something you did in the forest,*" or "*take photos of what you usually do in the forest*" allowed the children to be creative while still maintaining the focus of the study. It also supported the hermeneutic phenomenological basis of keeping the conversation 'open' while being focused on the research phenomenon (van Manen, 1990).

### ***Revisiting artifacts for deeper understanding***

Upon a completed activity, I engaged in reflective dialogue with the child based on their willingness. I asked open-ended questions such as: "*Can you tell me about this photo you took?*" or "*Tell me about this*". I ensured that the child felt comfortable if they wished to be silent, 'pass' a question, or stop, and the children were quite comfortable in expressing such desires. Drawings and books were photographed or scanned and the original work was given to the child. The activities were introduced sequentially and completed over a period of several weeks (refer to Appendix A).

## ***Flexibility***

The children had the freedom to choose whether they would like to partake in an activity, the duration of time they would like to dedicate to the activity, and if they would like to opt-out. All activities were completed in the forest program, allowing the children to switch back-and-forth between playing and engaging with the research. I carried the necessary tools to have them available. This allowed the child to come back at any point or day to continue their work. Having the children decide when to engage with the activity empowered them to participate or opt-out of the data collection method and take ownership. This tactic was quite successful with the group of children. As *Table 3.2. Number of Children for each Research Tool* presents, all of the six children were quite enthusiastic about photography, yet only three children engaged in child-led tours and five in drawing.

## ***Personal Journaling***

Writing offers an opportunity for reflection (van Manen, 1990). It drew me closer to the experience and gave me the opportunity to reflect as well as confront and examine my own thoughts in regards to the research (van Manen, 1990). I journalled after each program visit and through the process, I discussed the possible themes, reactions and personal impressions that the activity revealed about the phenomenon and then inquired with the children about it to deepen the understanding. Each reflection was built upon previous experiences and thoughts, connecting it to my personal upbringing and related literature.

### **3.7.3. Research Tools**

Data collection began on September 1st, 2013 until February 27th, 2014, for a period of 25 weeks. Within that time, I also interviewed the parents, teacher and director of the program to provide further background information to see the experiences as a whole. In the section below I describe each tool I utilized for the children, myself and adults following a chronological order.

## ***Observations***

As shown in *Table 3.2. Number of Children for each Research Tool*, the study included many data collection methods, including video recordings to capture observations. I selected snippets of the children's explorations in the forest to gain a sense of their experiences. These video clips were transcribed, allowing for me to review the interactions while keep pace with the activity level of the program. I adopted this method after realizing during the pilot study that conducting traditional running records methods were ineffective in the forest environment. Observing while being active in the program was quite important to me, as it discouraged artificial assumptions about what the children's experiences were like (van Manen, 1990, p.69). This also helped me to comprehensively reflect on the children's time in the forest program.

## ***Casual Child Conversations***

Conversations with the children regarding their forest experiences happened on an ongoing, casual basis. The conversations mostly took place on hikes, during snack breaks, and, at the end of the day. These conversations encouraged the children to express themselves. This strategy was quite successful with the children who were more extroverted and enjoyed talking about their daily happenings. Conversations also took place during and/or after each activity to allow for deeper reflections and explanations.

## ***Drawings***

The drawing activity was the first hands-on activity used with the children. All of the children had the opportunity to draw, as materials were provided. On occasion, the children initiated collaborative drawings, where they would ask me to draw something specific, or co-draw with me. I would begin by drawing a tree and telling them it is the forest that we visited. I would ask what the child would like to draw next, and s/he would fill in the rest of the picture or draw pictures of what they would like me to draw. The collaborative pictures were effective with the children who were apprehensive about their own drawing abilities, or to gear the focus on their forest program experiences.

### ***Photography***

Jorgenson and Sullivan (2010), and several other researchers have recommended the use of photography in child-centered research (e.g. Schratz & Steiner-Löffler, 1998; Clark & Moss, 2004; Cook & Hess, 2003; Dockett & Perry, 2003; Hurworth, 2003; Dell Clark, 2011). Following this advice and through my own experience, photography was introduced to the children on October 15th, 2013. I carried five cameras, allowing multiple children who expressed interest to have the opportunity to take photos. In order to distinguish which child took photos of what scene, I photographed the child's face with their verbal consent before they took ownership of the camera.

### ***Child-Led Tours***

Child led tours were introduced on October 29th, 2013 and three out of six children agreed to lead one-on-one forest tours of their favourite play spaces. This method was decided on the premise that children best express their interests through embodiment (Clark & Moss, 2004). Each of the partaking children walked me through his or her favourite spot in the forest while I followed with a video camera. Each child led me to their spots, showing me how they like to engage with that spot. I asked prompting questions whenever needed (e.g. "why did you bring me here?" or "what is in this spot you took me to?"). It was common for the children to get wrapped up with their play, and drift off into playing with the other children instead of continuing with the tour. If this occurred, I gave the child space and observed from afar, giving them some time to play. When presented with the opportunity, I would approach the child again to ask whether they would like to continue with the tour.

### ***Book-Making***

The book-making activity was introduced three months before the data collection was concluded. Again, the children were encouraged to take ownership with their own books, deciding when they were complete, and what to include or exclude. For example, Joshua wanted to practice his writing and wrote about the meaning of each of the photos he chose for his book. Each child worked on their own book for a few weeks depending

on their personal interest. John and Aron took the shortest amount of time (two sessions), as their enthusiasm about the book was not as great as the other children.

***Adult Interviews (Teacher, Founder, Parents)***

As Ellis (2003) reminds us, “although the researcher may be focused on one component or dimension of a child’s experience, she or he needs to have a sense of the wholeness and complexity of the child’s life in order to interpret the significance of what the child says or shows regarding the research topic itself” (p.118). Thus, in addition to spending extensive time with these children in the forest program as an active participant, I took time to interview the parents of the children, the teacher and the program founder to gain a better sense of the children’s life as a whole (Refer to *Table 3.3. Number of Adults for each Research Tool*). Interviews were completed in person and over the phone. One parent declined an interview due to a language barrier and scheduling difficulties. The parents were quite active in the program, as they were required to volunteer at least once per month. Adult interviews were solely used to gain a better sense of each child’s daily life. The interview with the founder and educator also focused on the program’s structure, values and history.

**Table 3.2. Number of Children for each Research Tool**

Research Tool	Number of Children
Photography	6
Drawings	5
Child-Led Tours	3
Book Making	6
Casual Conversations	6
Observations	6

**Table 3.3. Number of Adults for each Research Tool**

Research Tool	Number of Adults
Parent Interviews	5
Teacher Interview	1
Coordinator / Founder Interview	1
Researcher Reflections	1

### **3.8. Pilot Study**

A pilot study took place in the months of May and June of 2013. This was to ensure the effectiveness of the research tools and objectives (Creswell, 2012). The pilot study included six, four to six-year-old children. This was the time to test out my data collection tools, to see whether they were effective in capturing the children's experience and of interest to the children themselves. The pilot study also allowed me to see whether the "My Name is Maggie" book was successful in fulfilling its purpose to explain my role as a researcher and the children's ability to opt out of any of the activities at any time. I did this by reading the book and observing children's reactions as well as addressing the children's questions. I've also asked the children to summarize their understandings from what I have read. Thus, all of the difficulties and successes of what to do and what not to do were noted prior to the main research study.

### **3.9. Analysis**

Hermeneutic phenomenology does not have a strict, pre-set method of analysis. Rather, continuous writing *is* the method of analysis (Laverty, 2003; Van Manen, 1990; 2014). While journaling, I kept open to the forest experience by merging my own reflections with the children's reflections, making it into a messy, yet creative and personal process of gathering insights (van Manen, 2014; Henriksson & Saevi, 2009). These personal subjectivities are imperative to the interpretation process, and were conducted on a regular basis. As Henriksson and Saevi (2009) remind us, the analysis is not an act to discover; instead, it is a path to our understanding.

Staying true to the ideas of hermeneutic phenomenology, I continuously engaged in *reflective journals* after each visit to note the research process, with personal thoughts, ponderings, reactions and reflections on personal upbringing, while keeping in tune with the details of the children's actions. Each new journal entry was built on the past, relating and making sense of new knowledge in terms of the whole. I also used the journal to keep a trail of my actions and decision-making rationale. I continuously brought insights back to the children, to promote deeper discussions, reflections and clarification. This formed a hermeneutic circle which hermeneutic phenomenology

embraces. A strict, and continuous writing routine played an integral role in my analysis (van Manen, 1990; 1997), as it allowed essences of the lived experience to become uncovered (van Manen, 2006). The new ideas were presented to the children, discussed and expanded upon through my time with them. Immediately after each forest program visit, all observations and conversations were transcribed into written text. I intertwined analysis with data collection, as a reflexive process of collecting and interpreting experiences (van Manen, 1990). This also allowed for planning next steps, and finding gaps in research.

Once data collection was complete, I used van Manen's (1990) method of *thematic analysis* to help create themes and sub-themes of children's experiences. Three approaches were used: holistic, selective and a detailed approach. I first read the text *holistically* attempting to capture the essence of the text in a phrase, asking "what does this text say about the children's nature experiences?" (van Manen, 1990). I reflected upon the type of experiences that were prominent in general terms (e.g. fantasy, adventure, etc), and wrote what each term entails. I then used a *selective approach* to highlight passages of interviews, reflections and observations that pertain to the experience of being in the forest program. I asked the question "what statements or phrases seem particularly essential or revealing about the phenomenon or experience being described?" (van Manen, 1990, p.93). Lastly, in the *detailed approach*, each sentence was looked at and asked "what does this sentence or sentence cluster reveal about the phenomenon?" (van Manen, 1990, p.93). Meaningful quotes, and examples were highlighted which especially stand out as powerful illustrations of the experience (van Manen, 2014). The themes were composed of my interpretive statements which held key meanings of the experience. Themes were grouped and sub-grouped to reflect the order of importance, adjusting as new themes came into play. Children's photographs and drawings are also included to offer further insight beyond the words.

The purpose of my study was to evoke feeling of the experience (van Manen, 1997; Henriksson & Saevi, 2009, 46). I incorporated *thick descriptions* as described by Freeman (2014) as well as personal reflections in my discussion (van Manen, 1990; 2014). Thick descriptions evoked meaning in the text, giving depth to the particular experience, and provided an intuitive sense of how the children experienced the forest

program (Freeman, 2014; van Manen, 2014). Van Manen (1997) echoed that a true phenomenologist acts like a poet, inducing wonder, emotion and interpretive depth to writing. Thus, incorporating thick descriptions and reflective tones supported my goal of reporting on the children's experience of the forest.

### **3.10. Hermeneutic Reflection**

My research involved consistent *hermeneutic reflection* through rigorous journaling. Journaling was essential in the hermeneutic analysis, as it allowed the researcher to sustain an internal dialogue, and become conscious of personal feelings, values and judgements that form personal horizons. This is quite central, as hermeneutics seeks to 'fuse' horizons to integrate meaning (Gadamer, 1975; Smith et al, 1999; van Manen, 2014). From the act of continuous writing, I integrated the hermeneutic circle in the process of journaling. This act also spoke to van Manen's (2014) addressive meaning and distinctive rigor as it directly kept me to the primary phenomenon. Due to the interpretive praxis of hermeneutics, an audit trail for reflexivity was central (Smith et al 1999). I kept an audit trail in my journal to record methodological decisions, noting my actions and influences kept a logical track of my progress. The audit trail supports reflexivity, the capability to proceed with logical steps by critically examining research progress (Smith et al 1999).

I incorporated *thick descriptions* and *personal reflections* in my study. Thick descriptions not only allowed me to include rich illustrations, but also offer hermeneutic interpretation in which I captured tones and silences in language, intentionality, motives as well as emotions in the descriptions (Freeman, 2014). Incorporating personal reflections in the discussion added to the descriptive depth and exploration of the meaning, offering insight to the many dimensions of the experience (van Manen, 2014). These tools allowed for a descriptive richness and interpretive depth in my study, and highlighting the complexity of human experience. Using vocative and artful language awoke the reader's emotions and stimulates contemplative questioning and wonder.

Lastly, opportunities for original, deep insight are possible through the Mosaic approach and the prolonged time I spent with the children. The Mosaic approach (Clark

& Moss, 2004) offered various modes of expression. All of the children had the opportunity to express themselves in the way they preferred and desired. Using various modes of expression over a lengthy duration of time allowed me to contemplate with the children, provoke depth in thought and provide in-depth understandings. In keeping with the Mosaic approach (Clark & Moss, 2004) and van Manen's (1990) guidelines, I was able to keep my focus on the research phenomena, keeping in tune with the distinctive rigor and the hermeneutic circle.

### **3.11. Research Ethics**

After the approval of the *Board of Ethics at Simon Fraser University*, I went on to introduce my study's premises and details to the teacher and the program founder. They invited me to present in front of the parent board of the forest program. A simplified version of my proposal was printed and distributed to the board members. In this I outlined my research objective, data collection tools, timeline, and explanation of how I would maintain confidentiality was presented. I also ensured that all stakeholders were aware that my data collection included photographs and videos of the children's interactions in the program. Once their permission was given, I made contact with the parents who had attended the orientation session (for enrolled families) in late August 2013 where I introduced myself as a volunteer and researcher. Parents in the Tuesday, Thursday group were then individually e-mailed to gain permission and consent forms were distributed. I expected that parents may feel pressured to participate in such a study (Flewitt, 2005), and thus the voluntary nature of the study was made clear as well as their rights to decline or withdraw. After the permission forms were signed by each stakeholder, children were then asked for assent.

In order to respect children's rights in research, I adopt Alderson's (1995) framework of key ethical priorities to concentrate on while conducting research with young children:

**Involvement of children in research.** The children in this study were treated as active and knowledgeable beings. Involving children in age-appropriate activities, such as drawing, forest tours, photography and/or book-making ensured that their reflections

represented their own thoughts and actions. In this way, child participation was authentic rather than using the children as mere decorations for my personal aims of how their experiences should look like (Hart, 1992).

**Consent.** The children had the potential to have difficulty in grasping the details of the research study and thus it was important to accommodate the language to the audience (Fargas-Malet, McSherry, Larkin & Robinson, 2010; Dell Clark, 2011). To explain my research and ask for assent, I constructed and presented a “My name is Maggie” book with a question period after each page. I continuously re-read the book throughout my research period to provide children opportunities to opt-out, and ensure to them their voluntary status (Hill, 2005, Flewitt, 2005; Kirk, 2007). I stayed attentive to whether the children seemed uncomfortable with my photography and video, and asked parents as well as the teacher to voice concerns that the children communicated to them (Flewitt, 2005).

**Choice.** It was important for me to enable the children to have the choice of participating throughout the entire process. Although it was disappointing to hear ‘no’ from the children or disinterest on certain days, it was ethically important to encourage and praise the children for their decision-making rights. I respected children’s boundaries and recognized that research may not go as planned. Due to the flexibility in choices for the children’s activities, some children chose not to partake in some activities. It was essential for me to value the children’s preferences, and respect their freedom of when they wanted to opt out with an activity, as well as be aware of introspective personalities.

**Possible harm and distress.** As a volunteer and researcher in the program, I underwent a criminal reference check prior to working with the children. The children were happy to participate in the study, but on occasions when they did not want to, I stepped back and respected their needs (e.g. Hill, 2005; Harwood, 2010). Fortunately, the children often verbalized if they did not want to participate in the activities. Yet, I ensured to be attentive to silence and lack of eye contact from the children, as some were quite shy and needed more time to gain comfort with my presence (Fargas-Malet, McSherry, Larkin & Robinson, 2010; Harwood, 2010).

**Privacy and Confidentiality.** All children were given pseudonyms, and permission was granted from the program director, board committee members, parents and children themselves to take photos and videos of them in the forest. Photos and videos were shared openly with the children, and the children were aware that I was documenting their forest experience.

### **3.12. Chapter Summary**

The aim of this chapter is to clarify my research aims, rationale, as well as to describe my methodological choices and progress. To reiterate, the purpose of my research is to study young children's experiences in a forest program. To do so while incorporating my own voice and experience, I adopt hermeneutic phenomenology, specifically by incorporating van Manen's (1990) suggested methodological process. With that, I also incorporated the Mosaic data collection method (Clark & Moss, 2004), offering multiple open-ended activities. This allowed the young children with the freedom to choose the methods that interest them most, or opt out at any point in the process. I wrote regular personal reflections, recorded observations and conducted parent, teacher and founder interviews.

## Chapter 4. Insights

### 4.1. Chapter Overview

In this chapter, I explore the complexity of experiences that the children in the forest program illustrate. The insights highlight that the children's experiences are quite complex, ranging from challenging, nurturing or positive experiences with the forest environment and between each other. To provide structure to the complexity of experience, I organize the sections below in dominant themes which are drawn from my analysis. The major headings are as follows: Experiencing self-nurturing and positive emotions; Experiencing social dynamics and empathy for other-than-human living world; Experiencing personal challenge; Experiencing imagination; Experiencing curiosity; Experiencing thrill and risk-taking; and lastly, Experiencing physical manipulation: Human over nature hierarchy.

#### 4.1.1. Joy

I recall the joyful moments of running in the forest as a child with my brother and claiming my favourite tree and stream. I now witnessed these participating children experience a similar type of happiness in the forest as I did when I was young. During the ritual of our morning greeting circle, the children often spent their time laughing, running and chasing each other amidst the trees. Their enthusiasm was easy to notice. Oliver expressed his happiness on several occasions through an uplifting, repetitive song: "*B trail, B trail... I love B trail!*" (November 28, 2013) every time we hiked up to this particular trail. In one of the morning circles, he expressed his desire to invite his father to come play with him on that particular trail, so he could show him the sorts of games he played and the things he had found. The day that his father visited, Oliver was running around from stump to a bush, showing his dad the types of games he played: "*Dad! Dad! Follow me, I want to show you my stump!*" He exclaimed, showing the fun

aspects of each tree stump, rock or branch he played with (November 14, 2013). Like Oliver, the other children expressed their joy of playing in the forest through their comments, and everyday behaviours.

What is it about the forest that the children experienced such joy? Perhaps it is the feeling of freedom that children experienced while in the forest (Ridgers et al, 2012). These children felt open to make their own decisions, invent their own games and release their energy by running or yelling. In one of our conversations, Oliver talked about his favourite tree stump. When I asked why he likes this particular stump he replied in a simple, clear answer: “*happiness!*” He repeated this word several times while walking around the stump and then asking for the camera to take photos (October 31, 2013). Balancing on the trees was also seen as a joyful experience – Joshua took me to a vertical branch he liked to walk on, explaining that he likes it because of the fun he has while on it. On another occasion, Lilly expressed her fondness of trees: “*Hey, I like trees!*” she commented while taking a photo. After asking for explanation, she added: “*Because I like them! They’re fun!*” (November 21, 2013). When completing her forest book (*Figure 4.1. Lilly expressing joy of leaves*), she commented on the joy she has while picking up and throwing leaves off the ground. I asked her to explain:

L: Because I like it

M: Why?

L: It is exciting and fun

M: Oh, and what are you doing? What are the children doing?

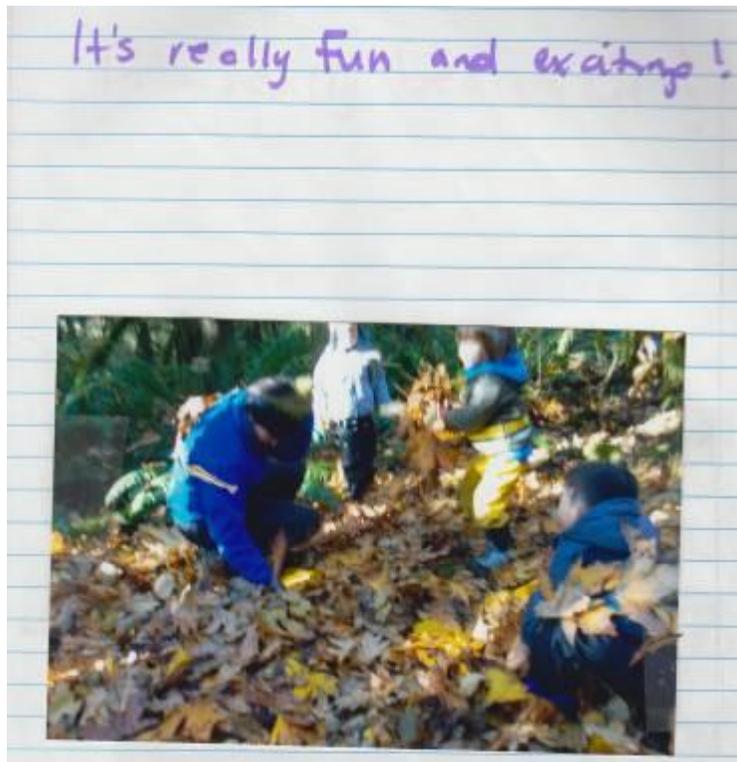
L: Throwing leaves at everybody!

M: And that’s exciting and fun?

L: Yah, can you write that down?

M: Sure, what would you like me to write?

L: That is it really fun and exciting – and can you write down here: it’s beautiful?  
(November 21, 2013)



**Figure 4.1. Lilly expressing joy of leaves**

Lilly expressed her enthusiasm for playing with leaves on a different autumn day. Using her feet and hands, she gathered the dried leaves in a pile, *"it's done! Now we can all jump! Wee!"* she yelled out and ran into the leaves. Lilly explained as she finished her jump, *"that was so fun! Let me take a picture, I want to take a picture!"* Then she requested the camera (October 22, 2013). Enjoyment of the leaves was also expressed by Aron while reflecting on a photo he took. He said, *"they're fun... [I] made a big pile and jump in there...and throw it up in the air and its fun"* (October 24, 2013). I asked how he feels. He quickly yells out, *"happy!" ... [because] of the leaves!"* These expressions of happiness match what Greenfield (2004) described in her study of 4-year old children's attitudes towards the outdoors, commenting on the children enthusiasm for playing in the outdoors, as they slid down piles of leaves or played imaginary games.

The joy also extended to other elements of the forest. I caught a moment of laughter between three boys standing in the creek. They were all holding onto their buckets, throwing water and sharing a moment together. Lilly expressed her enthusiasm about falling into the cold water one day. She laughed while telling me how she fell twice

on her bottom. She explained with a loud voice: “*it was so silly! I liked falling down!*” (October 17, 2013). Caden expressed the same joy on a different occasion while working on his forest book. I asked about his experience in the forest, and he told me about a time he played in the creek. I asked how he played, and he replied: “*I jump...it splashes... it is so fun in the water!*” (January 9, 2014). The children’s enthusiasm continued throughout their time in the forest. Whether it was jumping across streams, sliding down rocks or running through large mud piles, they often expressed happiness while actively playing and using their bodies. For the children actively discovering its offerings, boredom in that forest did not seem to exist. It seems that the forest was consistently changing, offering new opportunities and spots to enjoy.

#### **4.1.2. Calmness and Children’s own ‘special spots’**

At times, the forest was also experienced as a place for rest, calmness and security. This was true especially for Lilly, who often commented about the softness of the leaves and her preference for looking up at the blowing trees. As illustrated in *Figure 4.2. Lilly building a nest*, she often built nests for herself, constructing a place where she felt “cozy,” as she said in her own words. I recall in my journal observations:

Lilly asked me to help her build a nest that she can sleep in. She picked a spot where the ground was flat – I suggested a spot, but she declined because it was too “bumpy.” Instead, she chose to build the nest on the path, because it was the smoothest spot out of what she saw. We were gathering sticks from pine trees, as well as branches to build her a nest. She was taking charge and I was following her directions. First, she placed bare, curved branches as the outline for the nest. She then asked us to fill it in with soft materials, such as pine needles. She went through the pines and broke off the branches, and left the smaller softer branches with the needles. I asked her why she was doing that, and she said because the branches are hard and that the nest needs to be soft (December 3, 2013).



**Figure 4.2. Lilly building a nest**

Lilly seemed to develop a habit of constructing cozy nests out of leaves, branches and pines in the forest. A month later after the above instance, we sat down together to draw a picture of the forest (see *Figure 4.3. What Lilly sees while laying down*), and she began to explain her rationale for building nests. Our conversation was as follows:

Lilly and I were drawing at the end of the day, and I proposed that we draw something that we like doing in the forest. Lilly said she wanted to draw a picture of her laying down on the ground and what she sees when she is laying down on her back. I used the opportunity to inquire about her preferences of building nests:

*L: It gets me rested*

M: In the forest?

*L: Yah*

M: But why in the forest? Is there anything special that you like to lay down here?

*L: Well, you get to see all the beautiful things up high that you don't get to see down low.*

M: Ah, you get to see all the things up high that you don't get to see low?

*L: Yah*

M: Ah. How do you feel when you do that?

*L: Really happy. I also feel really rested when I do it.*

M: Because you lay down often in the forest?

L: See that's the bark of the tree. The tree is green and brown [pointing to her drawing]. First I am going to do the outline, before I get to do the inline (January 16, 2014).



**Figure 4.3. What Lilly sees while laying down**

Lilly informed me that she found looking up at the top of the trees relaxing, a calming practice that she found restful. On a different occasion, Lilly and Oliver snuck out of the snack time circle and climbed into a hole of a tree trunk with their snacks. The teacher let them be, and after a while, I went to check on them. Oliver explained in a soft, slow voice: *"I feel like nobody can find us"* when I asked what they were up to. They chose to be alone, peeking out of the dark shelter and whispering to themselves for a while (November 28, 2013). The children enjoyed having their personal space. At times, they wandered off by themselves to a nearby shelter, and replied to me in a gentle, soft voice when I inquired about their actions. For example, on our way back to the meeting spot, I walked beside John and asked about how he felt in this forest. He simply replied: *"good"*. I then asked why it makes him feel good, and he explained: *"well, the fresh breeze...yah...it's another word for air, you know?"* He then took a deep breath to hold the air in his lungs and released while saying *"ahh"* (October 31, 2013).

The forest had the potential to offer a soothing experience. John was correct, the air on that particular October day was quite fresh. We were surrounded by the tall trees with blowing leaves, the open space and cold ground. This calmness is what also drew me to the natural world when I was growing up. I had often layed on the grass in the

backyard of my grandparent's home. I observed the clouds pass on the sky's background. While visiting Poland after I moved to Canada, I returned to my grandparent's backyard, and layed on the grass in solidarity. This action reunited me to my familiar memories. It offered me the sort of comfort I longed for when my surroundings changed so drastically. Literature supports this experience of calmness and special spots. Sobel (1990) found that when children spend a consistent amount of time in a nature spot, it is likely for them to form a special bond to that particular space. In his reflective chapter, Nabhan (1994) ponders about the upbringing of his own children, and wrote: "Over time, I've come to realize that a few intimate places mean more to my children, and to others, than all the glorious panoramas I could ever show them," (p.7.). His children chose the sense of comfort and intimacy of their small hideaways on a typical basis. It is the primary instinct for a living being, he notes. To hide-away, to seek refuge in small spaces and to be at times, withdrawn (Nabhan, 1994). Like Sobel's (1990) and Nabhan (1994), the feeling of the cold earth brought calmness, not only to me, but particularly to Lilly, Oliver, and John as well.

#### **4.1.3. Pride and Feelings of Self-Autonomy**

As with joy and calmness, pride was experienced in the forest as part of the theme of self-nurturing and positive emotions. It was expressed by children who succeeded in something they initiated and determined to accomplish, such as climbing a tree stump or balancing on a fallen log. They often refused my help as I eagerly overlooked to understand their experiences. A particular instance was especially memorable for me:

In one of our forest spots, there is a thin, slanted log. One end of the log is supported on a stump and the other end rests on the ground. Using his body's strength, Aron pulls himself to stand on top of that slanted log. He begins to balance, slowly placing one foot after the other. His arms are stretched out to his sides, keeping him poised. He has a slight grin on his face. Oliver, who is standing behind him, yells: "I can do that!" and then stops what he is doing to jump on top of that log. Then, with one foot in front of the other, he walks along the log. His arms stretched out, walking in a fast pace. Looking at them, I was impressed by their balance, and yelled out: "Good job you two! How did you do that?" "Balancing, of course!" Oliver replied. "Wow, how do you guys feel balancing on that?" I asked, eagerly. Oliver replied: "Well, happy! ...Actually, I feel proud of myself!" "Proud?" I asked for confirmation. "Yah!" he yelled out. "I'm so proud of you too" I replied (October 24, 2013).

Oliver was faced with a challenging task he felt he was ready to accomplish. This was a moment where I captured him proclaiming his pride by statements such as “*I can do it!*” or “*I did it!*” as he finished climbing the stump. I had seen this also when he stated, “*I am proud!*” when he was showing me a page from his forest book of him climbing. Experiences of pride were also apparent with Oliver when he often proclaimed himself to be “Super Oliver” whenever he climbed up a stump or a rock. After hearing him referring to himself as “Super Oliver” a few times, I was intrigued and felt the need to ask what it meant. At first I assumed it was a character from a television show he watched, but he clarified by stating that he named himself this when he felt powerful. As we reviewed his forest book, he pointed to a tree that he took a photo of. I asked for him to explain, and he told me that he “*hung like a hook*” by holding on to the stump. I asked how he felt, and he replied by stating “*proud of myself*” with confidence.

The children often experienced pride when they completed a task they had seen as difficult, but initiated and persisted to complete. It was a celebration of their personal successes. Like Oliver, children often refused my assistance. Caden was not as verbal as Oliver, yet his pride was also apparent through his actions. He frequently climbed trees and balanced on branches with little hesitation, followed by smiling and other facial expressions. I reflected upon my own childhood, a particular moment of climbing up a stump I named the ‘rocket ship.’ I had seen my older brother climb it, but I was never able to climb it on my own. The day I finally reached my goal, I felt powerful. Without assistance, I was able to achieve something that I had attempted many times before: My older brother could do it, and so could I. The expressions shown on these children’s faces, and their frequent calls of “*yah!*” and “*I did it!*” brings me back to my own childhood moment of succeeding in something that I usually depend on others to do.

As explored in this section, children were shown to experience times of positive experiences, including experiencing the emotions of joy, calmness and pride. The children seemed to convey joy on a regular basis, especially while engaging in highly active physical activities, such as throwing leaves or running amongst trees. I also found, especially in Lilly’s and Oliver’s experience, the children expressing calmness, such as

building small huts or nests for napping, and then expressing the moments through their illustrations or conversations they had with me. They seemed to enjoy the quiet moments that the forest provided them with, and the materials to build their own places that would allow them to find a place of rest. Finally, the children also seemed to express pride in their own achievements – such as climbing stumps or trees. As I watched them, they often yelled out cries of “I did it!” or “look at me!” to the teacher or other children, expressing their internal feelings of accomplishment. The elements found in the forest did not come with instructions, or directions. Rather, it was an enticing environment for children to feel the inclination to challenge themselves, use their physical bodies and attempt actions that they otherwise may not feel welcomed to try (Fjortoft & Sageie, 2000). The forest environment offered these children the opportunities to experience these positive emotions, without the leadership or initiation of an adult. This is an important insight for educators to keep in mind as they spend time with young children in forest environments, and the trust and distance needed to allow children to engage with the forest, if they desire.

## **4.2. Experiencing Social Dynamics and Empathy for Other-Than-Human Living World**

The first discussion elaborated on the personal nurturing emotions of joy, calmness, and pride that I had witnessed with these children. Continuing the discussion, I draw attention outwards to the social dynamics that the children had between each other, and other objects of the forest. Specifically, these discussions are related to peer dynamics, problem solving and communication, and lastly, other-than-human empathy towards aspects of the forest.

### **4.2.1. Emotional bonds between peers**

Over the course of several months, the children seemed to form emotional bonds with one another. This was especially noticeable between Oliver and Lilly, as I had seen their friendship strengthen over time. They seemed to play together quite frequently. They told each other secrets, climb together on stumps or branches as well as engage in ample amounts of imaginary play. But their bond was made particularly visible through

their forest books. When I introduced the forest book activity, Lilly and Oliver insisted that they would complete their books together at the same time. I honoured their request and reserved time for them to work together. During their session, Lilly devoted a page to their friendship. She glued a photo she had taken of Oliver on a page, and said: “*I love Oliver! ...I love Oliver, can you write that?*” She asked me. Oliver did the same for Lilly. He dedicated a page for her, and asked me to write “*I love Lilly*”. He then showed Lilly his final work with a smile on his face: “*I love Lilly!*” he declared. “*Yes! That’s why I did it – because I love Lilly!*” They showed each other their book pages and laughed. Upon finishing, Lilly eagerly explained to me, “*I love Oliver, and he has: I love Lilly!*” On a different day, Lilly asked for the markers and drew a picture of Oliver and her together (Refer to *Figure 4.4. Lilly’s drawing of her and Oliver*). Their strong bond was apparent throughout the months in the forest, with both of them independently mentioning to me how much they enjoyed playing with the other.



**Figure 4.4.** Lilly's drawing of her and Oliver

I found Caden and Joshua to hold a similar bond. However, unlike Lilly and Oliver's friendship which grew over time, Caden and Joshua's friendship grew after a particular incident in the fall (as seen on *Figure 4.5. Jumping over the stream*):

We were all playing a game of chase between the trees and stumps of the forest. Joshua and Caden quickly ran further away to a distant part of the forest, and found a small stream flowing through between the trees. They both jumped over the stream, and Joshua remarked: “*Now she can't*

*get me!*” referring to the teacher who was playing the ‘monster’. They turned their attention to the stream that they just discovered, standing on the edge and looking down on the passing water. Caden called to Joshua “*you go like this*” as he bounced off both feet and jumped across the stream, landing on his feet. Joshua followed but lost balance and fell on his chest on the other side. Caden began laughing out loud, and Joshua joined in as he got up on his feet: “*oh look, I just fell down!*” he yelled out with joy. Caden again jumped over the stream with energy and laughter. Joshua followed, but slipped down the stream before he could jump. Caden laughed so hard he raised his head up and to let out more laughter, and Joshua joined in with the laughter as he got up and jumped over the stream, and landing on his knees. Caden fell down from laughing: “*ha ha! Oh! I’m going to do it!*” he yelled over as he got up and jumped, landing on his body on the other side. They were both laughing as Joshua got up jumping across and landing hard on his body. They laughed and did this several times over: “*Oh man!*” Caden yelled out, “*you’re funny!*” to Joshua (November 19, 2013).



**Figure 4.5. Jumping over the stream**

The bond between Caden and Joshua was strong from that instance. They referenced this episode several times after, purposefully bouncing off the ground while twisting their bodies in the air as they were falling - mimicking the actions they had made at the stream. Joshua dedicated a special page to this incident and talked about the fun he had with Caden, explaining to me: “*that’s the mostest part I love, that is my favourite part that I love*” while working on his forest book (November 26, 2013). Hart (1979) calls this a sense of belonging, where, as with this case, the natural space became a tool to provoke friendship. Whether it was over a period of prolonged time, or a particular

incident, the forest provided these children with opportunities to bond and form friendships.

The children had shown examples of empathy for one another in difficult or physically demanding tasks. A particular incident in mid-November captured this experience quite well:

We were hiking back to our meeting spot at the end of the day. All of the children were enthusiastic after their exploration, and hiked with full energy... all, except Lilly and Oliver. It was a winter's day and Lilly was feeling under the weather. Her and Oliver were walking with a parent volunteer in the distance. As I looked back, I saw Oliver quickly running towards us. "Wait, wait, I have an idea!" he called to us as we looked back. "I have an idea! Do you want to hear it?!" He yelled eagerly. "Sure, what is your idea?" replied the teacher. "Why don't we encourage Lilly? We can encourage her so *she* can keep on walking!" "Why don't we sing, *you can do it!*" All of the children gladly accepted and began singing on top of their lungs: "YOU CAN DO IT! YOU CAN DO IT!" to the distant Lilly. A few moments into the chant, I saw Lilly in the distance, running full speed towards us, with a big smile on her face. The children continued "YOU CAN DO IT!" as they laughed and cheered on. She runs full speed towards us, and joins in singing, as they all began to run ahead, together, as a team (November 12, 2013).

Oliver's empathy for Lilly was quite evident when he initiated the chant. I was pleased at his thoughtfulness, and inquired further about his rationale. He proceeded to tell me a story of how he once got cheered on by his guardian while walking up a steep terrain. The cheering brought him happiness and motivation to keep walking. I asked how he felt, and he replied: "*nice, pretty nice!*" This incident began a tradition of the children singing "you can do it" while hiking up steep terrains.

#### **4.2.2. Problem solving and communication**

Although the forest encouraged the children to unite and form friendships, it was quite common for them to also face difficulties in their interactions. Some situations seemed quite effortless in working together. For instance, Lilly and Oliver became good friends, and frequently played together by constructing new imaginative games. I recall a

particular moment when we were playing in an area surrounded by ferns and trees overgrown with moss. Oliver wanted to begin a new game he entitled, 'dinosaurs,' and he introduced the concept to Lilly:

Oliver is pointing his stick to the direction he wants Lilly to go, and Lilly is also pointing her stick in the same direction. *"You go that way... you go down that way, ok? See that way? See the way I am pointing my stick...and I will go down this way!"* Oliver declares to Lilly as he walks the opposite direction. I approach Oliver and ask what they are doing: *"we are going to make a trap for the dinosaurs, and we will put it on our hook and every dinosaur that passes, it will suck it up! That would be good, right?"* (November 21, 2013)

Oliver positioned himself to be the leader and Lilly followed the rules. The leader was typically the child who thought of the concept, while the other children added to the rules or modified to build upon the initial game. Soon after this scenario, Lilly added her thoughts, stating that they should find larger sticks to catch the dinosaurs and build dinosaur traps. They had shared ideas and were now sharing the leadership role interchangeably throughout their play activity. In another instance, Joshua, Caden and Aron were playing on top of a log. Joshua initiated a game called 'three little piggies,' and was assertively directing the other two boys on what to do:

*"Caden, you go to that house"* Joshua calls out while pointing his finger to the distance, *"and you... you can go over there,"* he points to the opposite direction to direct Aron. Caden has a smile on his face, but Aron responds hesitantly: *"I'm going to play Angry Birds game for a while, ok?"* he asks Joshua. Joshua does not respond. *"Is that ok Joshua? Is that ok with you!?"* Aron repeats his question three more times with loudness in his voice. Joshua looks at him for a few moments, *"OK but I'm going to play the piggies"* he responds jumps off the log (November 19, 2013).

Joshua was quite enthusiastic about playing the 'three little piggies' game. Yet, Aron had his own idea of what he wanted to pursue, and attempts to communicate this with Joshua in order to receive his approval. With a slight hesitation, Joshua agreed and they began to play their separate games. I had seen such communication skills throughout the forest, especially when the children worked towards a common goal, such as fixing a balancing course, or constructing a den and figuring out how to carry branches together.

Yet, complying with the rules was not always the norm. A week later, Lilly and Oliver were playing on a log together, but this time, Lilly was in charge. Lilly thought of the game entitled, 'puppy train,' where the log was a train and they were the puppies sitting on top of the train. Hearing her proposition, Oliver was not impressed as he had little interest in being a puppy, and was more interested in being the conductor of the train:

*L: There's going to be two puppies*

*O: But, you're going to be the driver*

*L: No. You're the driver*

*O: But, I'm supposed to be the conductor*

*L: Ok, you can be both*

*O: But I don't want to be both.*

*L: Ok...you and me will be both. Ok, we will do it.*

*O: How about... I don't think there should be puppies, I think there should be people.*

*L: I like the puppy train better*

*O: No...Why?*

*L: Because, it is for puppies! [She says in an enthusiastic voice and smiles]*

*O: No, it's not.*

*L: Hmm! [crosses her arms on her chest]. Ahh! [walks away with frustration]*

Lilly grew quite frustrated, as Oliver was non-compliant to the game she initiated. She attempted to negotiate on the rules to reach her desired goal, yet Oliver was openly displeased about being a puppy. She frequently walked away and sat alone when difficulties like these arose. Other children often cried, complained and hit one another when solutions could not be resolved, which then had to be mediated by the teacher. A particular instance that stayed with me is when the children decided to carry a long branch together on their hike back at the end of the day. The children grappled with the large tree, wanting to carry it in different directions. Unable to compromise, they yelled and used physical force to attempt to take the branch away from each other. Seeing this, the teacher intervened and it had left me feeling shaken, frightened that the children would cause each other physical harm.

Canning (2011) states that compromise and negotiation are seen in the forest while engaging in group play and was seen while the children had been playing 'bear in

the woods' game with the young children of her study. Through open-ended play, young children had opportunities to socialize, face problems and negotiate. As the forest environment provided a wealth of open-ended artefacts, it pushed children to face complex social problems on a regular basis, (Canning, 2011) and perhaps problems that children were not able, or had great difficulty, in resolving. Golden (2013) agreed by stating in her observations, "tall trees, big stones and bodies of water dwarf young children; however, they learn that by banding together they can change physical outlay of a wild space" (p.136). As for many instances, this was indeed true with the children I had worked with, where they were faced with many social difficulties, disappointments and negotiation strategies on a regular basis. This suggests that the forest provided many open-ended opportunities for the children to follow their own interest, such as playing group games and negotiating. In turn, the potential for the children to experience social dilemmas were frequent, enabling them to learn more about cooperation, disappointment or negotiation which otherwise may not happen. This is an important consideration for educators, especially in regards to setting a balance between deciding when to step in, or hold back in their authority.

### **4.2.3. Empathy for other-than-human living world**

Although destructive behaviours toward nature were seen throughout the seasons, especially for the five boys, caring behaviours did increase at the same time for some children, and especially for Lilly. Four months into the program, Lilly took notice of a tree she played beside:

Lilly approached me. She grabbed my hand and pulled me to follow her. "Look!" she pointed at a small pine tree. "It's a baby tree! Aww, how cute is it!" I agreed and confirmed its small size. It was as tall as she was. "I gave it a present, want to see?" she asked. I agreed and followed her, and on top of the pine tree was a dried up maple leaf that she had placed.

*L: "It's its birthday" she explained.*

M: "Ohh, and how old is the tree, you think?"

*L: "Four, the tree is four".*

M: "Really, how do you know?"

*L: "It's as tall as me, that's why!" She explained in an enthusiastic voice.*

I was very happy to hear the connection – she was relating the tree to herself. *"It is so cute, I love it!" "I love you, tree! You're my little tree!"* She said as she approached and gave it a kiss on its branch. I placed a small yellow leaf on top of it as well: *"Shall we sing happy birthday?"* I asked. *"Yah!"* Lilly replied. There we were, looking at the little tree, singing happy birthday to it on its fourth year. She hugged it and gave it another kiss. *"It is so cute,"* she explained. (January 7, 2014)

As with the others, Lilly spent her time playing in an environment immersed with natural elements, using them as props for play, tools to use, and things to climb. In a separate incident, I witnessed a memorable moment with Oliver in mid-winter, while he was expressing empathy for a tree as well:

Oliver was standing in front of a tree that was covered in snow. He was standing on his tip toes holding a long stick in his hand. He was brushing and picking out the snow that was on the tree. I approached him and asked what he was doing. He replied, *"I am taking the snow off the tree, so that it wouldn't die during the winter time."* I asked why he wanted to save the tree, and he told me that *"it could help us live, because it provides oxygen for us, so we need to protect it."* He then turned my attention to how high he can reach with his stick: *"See how high I can reach? I can reach all the way up there. I can only reach here [with my hand]. But when I stand up here [on the tree root] and I hold this [the stick], and I am holding it really slowly, I can get it way up there. See?"* I asked whether the stick helps him, *"Yah, you see?"* he responds, *"And I can kind of climb the tree, you see. I stick it in [his foot into the wood], and climb, I find the holes in the tree and then I stick my stick into it and then it helps me to climb"* (December 12, 2013).

Oliver had a particular fondness for climbing trees. He constantly reflected upon his joy of climbing throughout the time in the program. He found many trees to climb, whether they were short stubs or thinner trees – he would attempt to climb them all. He also expressed his fondness for the trees, as I began to take notice of the special bond he had formed with them. I was surprised to see him taking the snow off the tree. He had the knowledge that snow made him cold, and thus made the tree cold as well. He wanted to help the tree in a way he understood. Exploring the children's connection to

trees reminded me of my own childhood affiliation with trees. I recall a specific story about the two pine trees that were planted in my grandparent's front yard. Seeing them, I had formed a connection, as the trees were still small shrubs. One was slightly taller than the other one, as with my older brother and I. Although I had never climbed the pine trees, I played around the smallest shrub, digging in the soil and leaving my dolls underneath. As days passed by, the shrub grew taller, and I did too. I had seen the white and lavender bellflowers growing beside them in the spring, and the frost resting on them in the winter. The small shrub became my own, and I still have a fondness for it till this day, when I visit my grandparent's home with the tree's vast size reminding me of my age.

Scholars suggest that the affiliation between young children and trees is common amongst children (e.g. Sobel, 1990; van Arken, 1990; Hart, 1979). Consistent with van Arken's (1990) research, Oliver's fondness of trees grew from his regular climbing. As he climbed, he began to take deeper notice of the tree, examining its bark and the details on it. The ongoing interaction forms emotional closeness, and in turn, empathy and care for the living artefact (van Arken, 1990). Hart (1979) also had observed that many young children formed emotional attachments and affection to trees in particular, being "loved and differentiated for their climbing qualities" (p.203). Children often expressed affection for a particular tree – the one that they had climbed and used in play the most often. Throughout the two years that Hart (1979) worked on his thesis, he had seen the same children returning time after time to the same tree. One of the children in his study, a 7-year-old boy, explains his affiliation with a Birch tree which he had climbed frequently through his childhood. He explained how he climbed the tree when he was "just a baby" (p.203), but now had found more challenging ways to climb the tree as he got older. The tree's offerings grew with the boy. He gained an emotional connection with it, finding many ways to climb it and playing various imaginary games. As with the examples of Oliver and Lilly, such ongoing interaction formed great affection and empathy for this natural object (Hart, 1979).

This section offers a glimpse into the examples of emotional connections children form with one another as well as the living elements of the forest, and the problem-solving experiences they face in a group setting of a forest program. First, the forest seemed to offer opportunities to form strong bonds between the children. The

friendships were not mediated by the educator. Rather, the unstructured environment with high affordances influenced the children's desire for peer connection. Second, the experience within a group dynamic came into play, as the children often engaged in problem-solving and situations which called for compromise without the teacher's mediation. For instance, figuring out how to play games, setup play areas or manipulate objects. Yet, the educator intervened at times when she foresaw potential threats. Lastly, as I especially noticed with Lilly and Oliver, the feelings of empathy towards other-than-living elements were experienced. A common thread uniting these three sub-sections is that they all took place within a group dynamic in a forest environment which offered challenging situations, open-ended natural artefacts and elements which were high in affordances. The majority of the scenarios described above took place in mid or end of the program's cohort, suggesting the duration of time spent in a forest may have enhanced the quality of the bonds that children developed and sustained. This connects to claims in the literature suggesting that caregivers must allow children to have prolonged, uninterrupted periods of time in natural environments to form connections with the natural world (Wilson, 2008).

### **4.3. Experiencing Personal Challenge**

So far, this discussion has included the positive emotions that the children were experiencing, as well as the outward social and emotional dynamics between the peers and the physical aspects of the forest. Now, I draw attention to the recognition that the forest was also a frightening, challenging space. While working with the children, I captured some fears that the children expressed, as well as dislikes, tiredness and painful experiences.

#### **4.3.1. Fear**

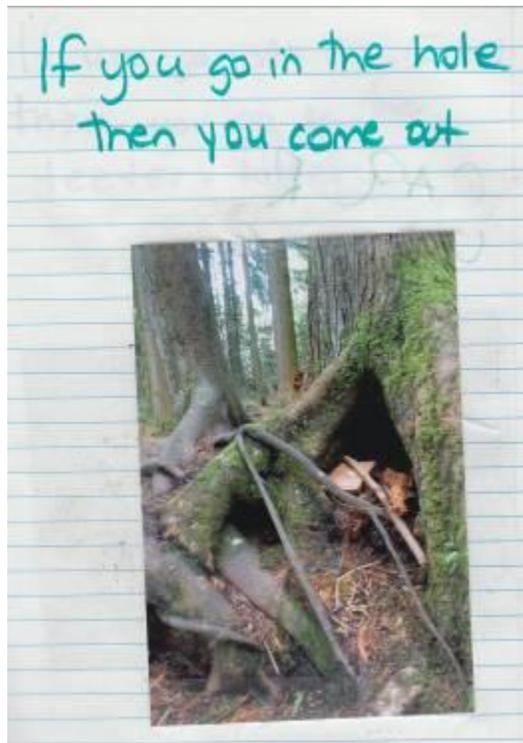
The forest seemed like a boundless space, with the strong trees overwhelming the large surroundings. There were difficult terrains and unpredictable circumstances, much different than the warmth of a familiar home. Throughout my time with these children, I had seen the vast amount of experiences they had undergone in the forest,

including the fears that they had expressed. Lilly, for example was terrified of spider webs:

Lilly approached me and asked whether I would like to help her find a shelter. I agreed and together we went around looking at the different stumps. I suggested one hollow stump which was burnt and black. She looked at it, and said: “*no, it has a spiderweb on it.*” I asked her why she was afraid of spiderwebs in particular, but she didn’t explain her answer, simply concluding that they were scary. She then told me that we should keep on looking for a shelter in a different spot, one that doesn’t have spiderwebs on it. I pointed to a small-sized spiderweb, and asked her if even a “*tiny*” one was scary. She replied by saying yes, and kept on looking (January 28, 2014).

As her mother later confirmed, Lilly refused to explain to anyone why she was afraid of spider webs. The fear of spider webs also prevented her from going to the nearby waterfall. The waterfall was in a small cave, with a big boulder in front, making it darker than the rest of the forest. We arrived one day and all of the children headed towards the waterfalls, except for Lilly. I asked her why she is not following the others, and she replied by stating, “*It’s too creepy in there, I don’t want to go there.*” I asked why, and she explained, “*because there is a lot of spider webs and stuff.*” I noticed the fear in her expression and voice, and assured she could stay with me on the path.

Caden also expressed his fears in his forest book. He glued on a photo he took of a cave in the forest, and asked me to write, “*if you go in the hole... then you come out.*” I asked for clarification, and he repeated again, “*if you go into the hole, then do not go into the hole.*” With confusion, I asked what the statement means, “*because if you go into the hole, then you will get lost,*” he explains, “*then [you need to] come out*” (see *Figure 4.6. Caden’s Forest Book page*). I later talked with his mother, to ask whether she was aware of this statement. Caden was particularly careful not to get out of sight from the teacher. He expressed his fear of being left behind, getting lost or left alone in the forest. He was afraid of being lost, emphasizing that one should not stay in caves. His mother later confirmed this, stating that he is particularly anxious about being lost in the forest. His fear was indeed rational, as the forest is without walls and one may get lost if they stay hidden or wander away from the group. Although Caden expressed comfort in attempting different actions, he was often careful not to run off too far from sight.



**Figure 4.6. Caden's Forest Book page**

Although some research indicates that children's comfort in a forest grows as more time is spent in it, fears that Caden and Lilly experienced are also stated to be common observation amongst researchers (e.g. Heerwagen & Orians, 2002; Hart, 1979; O'Brien & Murray, 2007; Gravett, 2013). For instance, a child from Gravett's (2013) study was convinced that there were dangerous snakes lurking in the forest, even though he had never seen them. He was in dialogue about the snakes with his peers, stating the sharpness of their teeth and the danger of the animal. The children had associated the forest as a place that contained hidden dangers and unpredictable things, different from home environments. I remember having fears like these when I was young. Like Caden, I did not want to be left behind in the large, dark forest. The unknown made me feel uncomfortable when alone. Whether it was with friends, parents or my brother, I had never ventured away from them to be alone in the forest. I was frightened of getting lost, or suddenly attacked by something more powerful. I often limited my independent play time in places that I had knowledge of, such as the nearby forest trail or the unkempt and extensive school yard. Similar fears are even reflected in

children's literature. Fairy tales such as *Little Red Riding Hood* or *Hansel and Gretel* reflect the common fears that the forest represents lurking dangers.

#### 4.3.2. Dislike of Mud

As part of the complexity of the children's experiences in the forest, I was surprised to learn that some of the children had a distaste for mud and the idea of getting themselves dirty. Aron, in particular, was quite verbal about his dislike of mud. On a particularly rainy day, I began talking to Aron:

M: Do you guys like playing in puddles?

A: *No, I don't like mud*

M: Really? How come?

A: *Because*

M: Because? What is it about mud you don't like?

A: *Because, I like to jump, I like to run, I like puddles and rain*

M: You like playing in puddles?

A: *Yah, I just like water puddles*

M: You only like water puddles?

A: *Uh-huh (nods). He quickly runs away to join the rest of the group.*

His dislike of mud continued for the rest of the seasons, often refusing to play in muddy places and avoid getting his clothing dirty. I remember a particular time when we were climbing a steep, narrow and muddy trail. Aron was the last child to climb, stating in a soft voice, "*it's muddy, I don't want to go up*" (January 23, 2014). As seen on *Figure 4.7. Oliver with muddy hands*, Oliver joined in at times:

We were hiking back to our meeting spot, passing by the typical large water puddle that the children remarked looking like a large foot step. John and Oliver began to step in it, putting their bare hands in. Oliver takes his hands out and sees the amount of mud that is on his hands. With a displeased look on his face, he walks towards me with his arms stretched out in front of him. He yelled out, "*ew, I got dirt! ...I got dirt on my hands!*" as he then wipes the mud from his hands onto my jacket. (November 21, 2013)



**Figure 4.7. Oliver with muddy hands**

I had seen Oliver play with mud on other occasions, although never touching it with his hands. I reflected upon an event in a large mud area in the forest:

Oliver was energetically running through a particularly deep, large and sticky mud puddle. As he slowed down, his foot got stuck in the middle of the mud. I turned my attention to him as he yelled out for help. He was balancing on one foot, with his other foot out of his rain boots, and his bare foot waving in the air, as he refused to put his bare foot in the mud. I think back to a few months ago, when Oliver got his feet wet in the stream when the water overflowed his boots. We changed his socks, and placed his foot in a plastic bag to prevent the new sock to soak through. Oliver saw the bag being on his foot and cried out with objection. Although we explained the rationale for the bag, he strongly refused and kept playing with his foot in it. Learning from the past, he now wanted to avoid getting his sock wet and dirty, waiting for me to come and rescue him from his struggle.

I sat down with Oliver and reflected upon his experience. He expressed that he enjoyed playing in mud puddles because of the big splashes that he could produce, at the same time however, he disliked it because it could get “*goey*” or “*yucky*” when the mud got on his clothes and hands. I pondered upon this experience with his parents, who were both surprised with my insights, as they themselves were keen on the idea of mud play. I had witnessed Lilly, who was usually quite fond of mud and dirt, to label mud as “*icky*” and “*yucky*.” When she was playing in a large mud puddle, walking around with her rain boots, she enjoyed squishing the mud. But when she came out of the mud puddle, she

looked at her boots responding in distaste, “*eww!*” she called out, “*mud! It’s yucky!*” This was one of the very few times Lilly had a negative response towards mud.

The dislike of mud that some children expressed surprised me, as I held an assumption that *all* children enjoyed mud play and getting dirty. Early childhood curricula frequently note the enjoyment that children express while playing ‘mud kitchen’ or in mud puddles. However, I was surprised to find out that not all children enjoy this type of play. Although this topic is quite uncommon within literature, Melhuus’ (2012) findings did relate to my findings by asking, “can anyone play this way?” (p.465). In other words, pondering whether hands-on outdoor play comes easily to all children, or whether it is culturally determined. Melhuus (2012) conducted a study of children’s experiences in a Norwegian outdoor program, and noted the uncommon experience that Sindra, a newly immigrated girl participating in the outdoor program. Melhuus (2012) writes that Sindra, “seemed like a stranger” (p.465) in the program, disinterested in the imaginary or muddy activities that the other children were constantly engaging in. Unlike Aron and Oliver, Sindra did transform over time, eventually engaging with the other children in outdoor, mud play (Melhuus, 2012). The fact that both Aron and Oliver never fully integrated into the mud play (Oliver at times, but never the case for Aron), points to the notion that mud play is not entirely based on cultural preferences. It suggests the idea that other factors, such as individual characteristics or family socialization, for example, come into play which may not shift over time. Keeping this insight in mind, it suggests that an educator must be open and take into consideration the personal preferences a child may have. Further, it offers a suggestion for educators to examine their own biases as to what constitutes the ‘typical’ play behaviours and avoid assumptions, expectations or pressure for a child.

### **4.3.3. Physical Tiredness and Pain**

Hiking through the forest was not always an easy experience, especially at the beginning where the children were younger and new to the forest terrains. Indeed the tiredness continued throughout the year, but with less intensity. The children tackled the hikes in the early morning with more energy, but this was quite contrary to the hikes back. The physical play tired their bodies to the point of exhaustion and the tricky terrain

was tough to complete with less energy and backpacks to carry. This is especially true for Oliver and Lilly. Oliver is quite verbal in his exhaustion and asked for frequent stops to rest. As we were hiking up a set of stairs, I stayed with him to help him with his struggle as he expressed his exhaustion:

*O: Long hikes hurt my legs. They do, they do, they do. I don't have as much energy today as the others. I won't have enough energy to come back here. To come back. I might not have energy to do a long hike.*

M: That's why you don't want to hike?

O: No.

M: No?

*Oliver: No...too long. I don't think I can come back.*

M: Why?

*O: Because the hike is too long. And I'm tired, and I won't have enough energy to come back the day after tomorrow.*

M: You don't want to come back?

*O: No... I have to go back the day after tomorrow. You want to know why? I have another preschool.*

M: So tomorrow you are going somewhere else?

O: Yah

M: And then after tomorrow you are coming back here.

*O: Well, no. I don't really want to. I won't have enough energy*

M: Oh, you don't want to go back because you might not have enough energy?

*O: No, I won't have enough energy.*

M: I think you will though. That's why you sleep.

*O: No. No... I don't think so. Help me...*

M: We are almost there.

*O: I don't want to hike.*

M: Why not?

*O: Because... I'm tired. [He stops, sits on the ground to rest, then he gets up and begins walking]. I want to sit on that log up ahead. Could we have a break? Sit on the log?*

M: Sure!

*O: I really need a break here. [We sit on the log]*

M: How do you feel now?

O: Ok

After a few moments, he began walking to catch up with the rest of the group and then began singing, "I can't do it":

M: Are you singing "I can't do it?"

O: Yes

M: Why?

O: *Because I feel like I can't do it.*

M: we are almost there

O: *There are too many stairs. I do not like stairs! I do not want to go up there at all! No. When I get there, I will NOT go up the stairs.* (January 14, 2014)

The song he sang was a modification of the “you can do it” song he initiated in the past. Oliver did not think he could do it, and changed the song to fit into his experience. The week after, Oliver was again struggling with hiking back at the end of the day. As he was walking behind the group, he yelled out in a crying voice: “*I don't like walking! I'm too tired!*” He then wished he could use his bicycle at home to get up the hill, as he would not have to use his feet. When I asked whether he wanted a rest, he cried out to the rest of the group: “hey wait up!” as he began running to catch up to them, “*why are you leaving me! That isn't nice!*” Just as Oliver, Lilly expressed her tiredness of walking on several occasions as well. Her feet were often tired and she could not catch up to the rest of the group. On one instance, I was walking beside her as she stopped. I turned around to ask what was wrong and she responded, “I'm tired” with an unpleasant screech in her voice. It was an especially long hike back that day, and she had to pause to rest a few times to reach the end.

Attempting risky actions also did not always lead to success, and the children had to experience the harsh consequences of playing in a physically challenging terrain, in addition to the changing weather conditions. The children often fell, slipped or experienced a form of physical strain. Fortunately enough, none of the experiences were serious or required medical attention. I recall on a particular instance on a rainy day, where Caden was partaking in his favourite activity of log balancing. In addition to a new log he was walking on, the rainy weather had made the log more slippery than usual. Although Caden was aware of the new surface, he was unable to complete his balance and fell on the side of his body. The teacher was right beside him as he fell and quickly grabbed him once he hit the dirt. He began crying, as the teacher gave him a hug for comfort, sitting beside him for a while until he was ready to play again.

I observed another episode in mid-October as children were playing with buckets in the cold stream, walking over the rocks of different sizes, textures and shapes:

Holding onto their own buckets, the children's arms waved in the air, as they were challenged by the uneven rocky terrain. Lilly was dragging her bucket in the water, saying to herself in a loud long voice "*watt—tter*". The other children were together, using the bigger rocks to support their bodies. They were filling the buckets with the water, and then dumping the water onto the rocks. I then watched as Aron and Caden walk away, stepping over the rocky terrain. As Caden walked, he stepped on a larger rock and lost his balance, his body wobbles and he yells out a high pitch scream. Getting his balance back without falling over, he begins to walk again in the rocky river. Just as he begins walking, Lilly who was further away on the other side, falls on her bottom and lands into the cold water ... splashing everything around her, including herself.

The children learned quickly how moisture impacts the terrain of the forest. Even though I had seen them become more familiar with the changing surfaces, the strains and falls always intensified on wet surfaces. The children were also faced with the challenge of sharing their play-spaces with others, which often results in physical harm. In this particular instance, Caden, Joshua and Oliver were playing in an area together:

The three boys were balancing on a pile of logs which was further away from the rest of the children. I followed these boys, as the only way I could access the logs was by climbing and balancing myself. Oliver was balancing with Caden and Joshua was on the side. As Oliver passed Caden, he accidentally knocked Caden off balance. Caden fell on his side between two logs. It was quite the scary fall, and it shook me as I didn't have enough time to catch him. Fortunately, he wasn't hurt, but cried severely while his face was covered with dirt. The teacher quickly got up to him and made sure he was ok and comforted him. Oliver stood there frightened and repeatedly apologized for knocking him over (January 30, 2014).

Moments like these shook me, as well as the children. The children expressed their frustrations in these painful moments by crying. Stress and panic overwhelmed their experience, preferring to have their own space, or to be in close proximity to the teacher. Some children expressed their dislike of the forest after painful experiences. John, for example, often called for his mom after falling or experiencing physical pain. I recall him running down a hill on a particular day, accidentally tripping and falling over. He

got up without physical injury, but left shaken and scared. He yelled for his mom in the request to go home, "*I don't want to be here!*" he yelled. It took him a while to calm down, and when he did, he continued playing. This was quite frequent with John, and I sat down with him to talk about his experience. Although John was not keen on talking about his painful moments in the forest, he did express his preference of playing with his Lego or Star-wars toys at home, expressing his dislike of being in the forest program as well as being away from his mother. In this way, it seems that his frustration was a fusion of being away from his mother, as well as the comfort of his home.

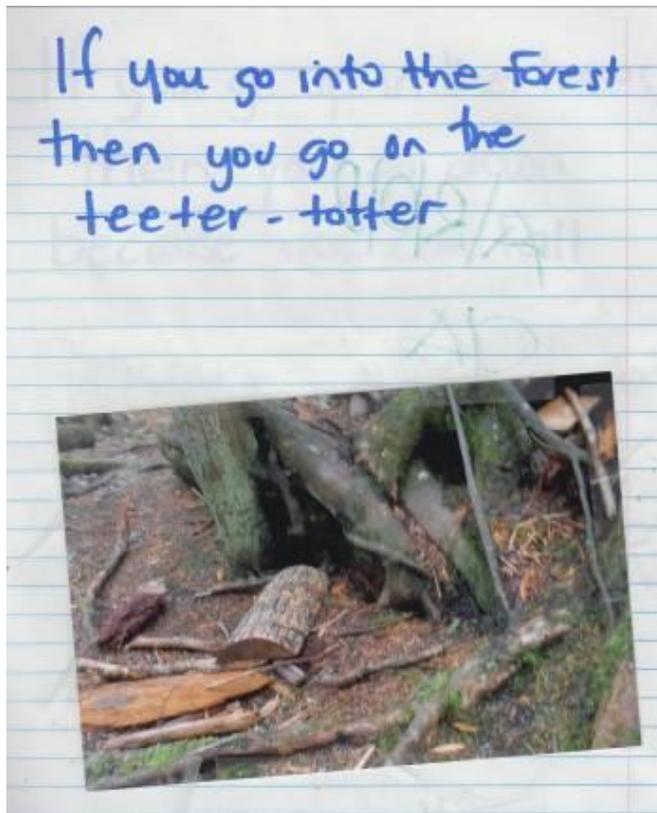
Contrary to the popular trend reported in early childhood literature, the insights above illustrate that the forest program also challenged the children, exposing their fears, dislikes and experiences of physical tiredness and pain. Especially seen with Lilly and Caden, their fears were evidently a part of their forest experience. Although literature shows children grow comfortable of the forest over time (e.g. Melhuus, 2012), this may only relate to physical confidence, as fears have the possibility of lingering. Next, the above discussion elaborates how children may experience unanticipated dislikes that run against popular beliefs, such as partaking in mud play. The children were also experiencing physical pain from falls or injuries and tiredness by being unable to keep up with the tempo of group's hiking at the end of a long day. These three insights shed light on considerations that educators need to reflect upon. All children have personal characteristics, limits, dislikes and preferences in their experiences. For positive practice, an educator must pay attention to those differences with an open mind, forming a dialogue to inquire and learn about individualistic preferences while maintaining respect for the children in the process. The insights also offer the suggestion for educators to examine their own biases as to what 'typical' play behaviour in a forest constitutes, to avoid hidden expectations or pressures for a young child. Finally, educators must be aware of the possibility of children exhibiting pain and discomfort, and continuously reflect upon their own objectives, as well as personal stance regarding the degrees of appropriate risk-taking.

## 4.4. Experiencing Imagination

When I was a young child, my family used to spend summers in a mountainous village in Poland called, *Czerniawa*. We went on regular walks to the forest, following the thin trail leading us through valleys, and beside creeks. But what I remember the most is my special 'rocket tree' which I climbed and took on journeys to outer-space along with my brother. My world was boundless, where everything I could possibly imagine came to life. My 'rocket tree' was like the others, but the low and thick branch extending from the tree made it possible for me to climb up. It pointed to the sky, and naturally, became my very own rocket. So far in the discussion, I had covered both inward experiences of positive emotions such as joy, calmness and pride. Next, I discussed the social and emotional dynamics between peers and the natural physical artefacts of the forest. I also drew attention to the challenging experiences of fears, dislikes and pain. Yet, imagination also played a vast role in the children's experiences in the forest. The following section provides the opportunity for me to explain this at a deeper level.

### 4.4.1. Forest as Invitation for Imagination

The early childhood years are filled with fantasy and eagerness to play. Independent of cultural upbringing, the language of imagination is common to all young children (Cobb, 1977). Yet, as discussed in an earlier chapter, the quality of a malleable environment and loose parts also has a great influence on how the imagination is used, as it has the potential of provoking creativity (Nicholson, 1971; Canning, 2013). In my childhood and in this forest program, the ever-changing elements serve as props in the forest for the children's imagination (Kirkby, 1989; Änggård, 2010; Canning, 2013), such as Caden's teeter-totter he illustrated in his forest book (refer to 4.8. *Caden's Teeter-Totter*).



**Figure 4.8. Caden's Teeter-Totter**

One winter's day, Lilly and Oliver found their own magic sticks:

We were hiking on our way to the forest spot. It is quite cold outside and frost is everywhere to be seen. As we are walking, Lilly finds a stick covered in white frost. "Ohhh!" She says excitedly, "It's an ice stick, it's an ice magic stick!" She uses the stick as a wand and flares it around, "It is magic... I wish my feet were warm! ...Oh, now they're warm!" she goes on, making several wishes including "I wish I wasn't sick! ...Oh, now I won't be sick!" "I wish I can make you frozen forever! ..now you are frozen forever and ever!" swaying her ice stick, and so forth. Oliver is walking nearby and joins in as he finds his own stick with frost on it: "This is my magic wand! ...This is magic too!" he states, "I wish we weren't so far away!" He begins running and Lilly follows, they begin to catch up to the rest of the group that is walking ahead of them. Once they catch up, Oliver asks the teacher "Hey, I have a magic ice stick, do you know how I got here?!" "How?" The teacher responds, "I ran to you!" he responds enthusiastically (November 21, 2013).

Lilly reflected on this incident in her forest book. She took a photo of the stick and glued it to a page in the book. Enthusiastically, she explained her special talent of performing magic tricks and making wishes come true while holding onto this stick. This was not a typical stick; it was covered with a thin layer of white frost, and therefore had magic potential. In addition to the natural artefacts, the forest invited the children to engage with their imaginations. I recall an episode of a whale attack during our play in the stream:

Caden, Joshua and Oliver were playing in the water with their buckets. Out of nowhere, Joshua calls out loud: “A whale! Look! It’s a whale! A whale!” in a loud voice. He points to the middle of the stream and runs towards the shore. Caden looks at him with a smile and begins running; Oliver does the same. Joshua keeps yelling, “a whale! A whale!” look! Look! A WHALE! Aah! A whale! Look right there!” he points to the stream. Oliver cries out, “ahh! Aah!”. Aron, who is on the shore overlooking beside me, comforts me in saying, “it’s a pretend whale” in a calm and quiet voice. Oliver calls out to the other two children, “we can go back in the water now, we can go back into the water,” as they slowly go back. As they get to knee-length water, Joshua again calls out his whale alarm as they run off again and fall over, wetting their clothes.

The whale that these children were referring to was a big, rounded rock peeking out of the water a couple feet away. This play was repeated on a separate occasion in the forest, where the whales turned into dinosaurs instead. On a different day, a stump in the forest was being used as rocket-ship which launched Joshua and Caden into space (refer to *Figure 4.9. Drawing of the spaceship* by Joshua)

Caden and Joshua were playing on a clear-cut stump. The stump had a smooth surface, and Joshua was sitting on top of the stump, with his feet hanging on the sides. Caden was behind him, watching. I asked what they were doing, and Caden informed me that they were playing rockets. I approached closer, and noticed that there were small pieces of various sized wood placed on top of the stump in front of Joshua. I asked what they were. “They are my rocket ship controllers,” Joshua answered. We went through them, and one-by-one he informed me what they were: A battery, beeper, a router to steer. Joshua picks up a small stick and says, “this is the controller” and taps it on one of the wood pieces. “I’m trying to beep” Joshua tells me, “so the rocket ship doesn’t hit the other rocket ships,” he says (October 29, 2013).



**Figure 4.9. Drawing of the spaceship**

Soon after, Caden had the chance to get onto the rocket ship and explore all of the controllers while flying in space. From the magic stick, to the whale in the stream and the rocket ship in the forest, the children engaged in a wealth of imaginary games while spending time in the forest. Sticks and branches were especially useful for imaginary purposes. While Lilly used her stick as a 'magic stick,' the other children often used them as controllers, or weapons to chase each other, whether it was a gun, or a sword. Stumps like these were not only used as rocket ships, but also for castles, ships, jails, fairy homes, or bear caves depending on the child and on the moment. As in my own childhood, the flexibility of a forest has the capability to make magic come alive. The quality of loose parts in a forest is what drew their imagination to a deeper level (Nicholson, 1971; Heerwagen & Orians, 2002).

The children continuously expressed how the forest looks like objects from their imagination. In my conversation with Joshua, I asked him about his favourite part of the forest, and he expressed how the trees remind him of wild animals (January 14, 2014). In another instance, Oliver expressed his theory of how mermaids live in the puddle and swim through streams. He then expressed how the pebbles in the ground we were

walking on our 'engine stairs,' as they had rocks and tree roots sticking out (January 12, 2014). A big puddle on our way to a play spot was also referred to as a 'giant footprint' by the children. The first time that the children experienced the puddle, Lilly called out: *"that looks like a giant footprint! Do you know how the water got here?"* Oliver replied: *"Because it was a giant footprint, and it was full of giants, and they were stepping through the water!"* The unusual shape of the puddle provoked the children's natural sense of imagination. Footprints like these were also experienced the children in the Waller (2006) study. On a snowy day, a child noticed bird tracks on the ground. Seeing the tracks, the children decided they were made by 'goblins' which led to the secret hideout.

In her study of children's experiences in an outdoor program in Norway, Melhuus (2012) emphasizes the ongoing themes of imaginary play. Children in Melhuus (2012) study had played games of witches, princesses, built spaceships, and cars. Waters and Maynard (2010) note the same in their study of exploring what specific parts of an outdoor environment entice five to six-year-old children. Hart (1979) and, later, Waller (2006) and Canning (2013) elaborate on the use of trees for children, frequently using them as watch towers or involving them as a prop for their imaginative play, for example, a tree being used as an octopus because of the many branches extending from it. Such open-ended natural artefacts provoke and prolong a deeper form of imaginary play which may last for days, and even weeks (Canning, 2013; Melhuus, 2012). Engaging in this complex imaginary play where children use open-ended materials for their own purposes, also gave children the opportunity to solve problems, socialize, and practice abstract thinking (Canning, 2013). Nabhan (1994) concurs by reflecting upon the childhood of well-known conservationists, explaining the endless amount of free play they had experienced as young children outdoors (p.13).

#### **4.4.2. Influence of Popular Culture**

The influence of popular culture was also evident throughout the children's experiences, especially for particular children, such as Aron and Joshua. In one instance, Aron, Caden and Joshua were playing with a rope tied tightly between two trees while standing on a rock:

The boys are holding the rope close to their bodies and leaning back, pulling on the rope as tight as they can. Aron yells out: "*on your marks, get set, go!*" and they all release the rope at once, so it bounces in front of them. "*we are playing angry birds!*" Aron says. They jump off the rock, and grab the rope then come back to their positions on top of the rock. The boys repeat the movement again, leaning back while holding on to the rope making it tight. "*Four, three, two, one..let go!*" Aron yells out, and they all let go of the rope, making it bounce again. They all laugh and pick up the rope. "*Hold this rope,*" Aron tells Joshua, "*ten, nine....three, two, one!*" he counts down, "*let go!*" "*yah!*" Aron and Caden shout out as the rope bounces. "*this is fun*" Caden calls out. "*We're shooting the planes!*" Caden calls out to Aron, "*we're playing angry birds!*" Aron responds back. Few minutes later, Joshua proposes to play three little pigs with the rope, but Aron resists and confirms that he still wants to play 'Angry Birds.'

'Angry Birds' was a popular video game which could be downloaded on an android device. The game involved the player tightening the rope and using it as a catapult to throw a red bird into the air to collect points. I had seen Aron's enthusiasm to draw the connection of the rope he was playing with to the game he had known. The other boys on the other hand, Caden and Joshua, seemed disinterested or unfamiliar with the game, and preferred to play games that stemmed out of books they read or their imagination. Quite often, I also witnessed John's enthusiasm about Star Wars expressed through his play and conversations with me and the other children, or drawings. He often used sticks and other natural artefacts as light-beamers (or 'light-sabers' in the star wars terminology). For instance, on one particular day, John took me on a walk to show me the type of games he plays in the forest. We approach a particular tree stump and I inquired:

M: What is that? [Pointing at the tree stump they were playing on]

J: *It's a spaceship*

M: And what do you like to play on here?

J: *Well, I like to play Star Wars on there.*

M: Yah? Do you want to show me?

J: *Yah, I'll show you! [He approaches the stump, and picks up a stick he was playing with previously that day]*

M: And what's this?

J: *A gun! [ppohh! he 'shoots' the gun into the air, holding it with his two hands under his arm]*

M: It's a gun?

J: *pphtt! [he shoots again]*

M: Oh boy, so how do you play with that?

*J: I shoot with it!* [He grabs the stick, pretending it's a gun, and walks over to the tree stump. He walks on top of the tree stump and begins to 'shoot' the gun again. "*phht! phht!*" "*haha*" "*phht!*" He then sees Joshua on the tree stump and begins to fire at him with his stick, and Joshua fires back at him, they play back and forth for approximately ten seconds and John brings his attention back to me].

We continued our conversation, and John began talking about his Star Wars action figures he had at home, and how he did not bring them in the forest because they were plastic. I asked whether he played other activities aside from Star Wars:

M: And what else do you like to play in the trail? Show me something else that you like to play.

*J: Star wars, also star wars.*

M: Really? Are there any other areas on the trail that you like to play?

*J: Yah, there is also star wars [points the stick ahead of him while sitting on the stump to another stump].*

John made his preference for Star Wars clear, as he proceeded to take me to all of the areas where he enjoyed playing Star Wars. He showed me the type of Star Wars games he enjoyed playing, whether it is shooting his sticks, or pretending to rescue 'Princess Leah' and fight the evil Jedi's. At a separate instance, John expressed that he would prefer to go home and play with his Lego's instead of being in the program – especially on the cold days or when it rains. In addition to the weapon game that John liked to engage in, sticks were often used for guns or swords, while rocks for bombs by the boys in the program. In one instance, John elaborated his uses for sticks:

*J: It's a gun, but now I am using it for decorations.*

M: But also as a gun?

*J: Yes.*

M: Caden had a gun earlier too. He found it. So what makes this a gun?

*J: Well, look. It has two handles and pphhh!* [gun sounds, as he is pointing the gun up in the air, then he places the 'gun' on top of the tower]

M: Was that the same gun you were using on Tuesday?

*J: No... I use sometimes, always, other guns... or, didn't I?*

M: I don't know

J: [Nods his head to say yes]. *There is a different gun from the tree* [points to a branch lying down in front of him, a different branch he used this time]

Aron's inclusion of 'Angry Birds' to his game and John's ongoing involvement of Star Wars and preference to LEGO connect to what Änggård's (2011) found. She illustrated how young children were often inspired by media-tech games from their everyday, modern home lives. As with Aron and John, children in her study often referred to LEGO characters while throwing pretend bombs or fire-balls (Änggård, 2011).

The children used the natural artifacts, such as ropes and sticks to relate it to something that they already had experience with. For the children who had experience with popular culture figures such as 'Angry Birds' or Star Wars, they brought it into their self-initiated outdoor play. Melhuus' (2012) study of outdoor kindergartens illustrating that children structured their environments to fit their social lives, "through play children make connections between the forest space and 'the modern world', building bridges between different contexts, or one could say re-contextualize the given space" (p.455). Although not asked directly, I could assume this is also true with games involving ships and castles, for instance. Young children are introduced to these concepts early on, through tales, fiction books and our culture. The children then brought these ideas into the outdoor play, enriching the concepts and making it their own.

It is evident that all of the six children experienced deep levels of imagination throughout their forest experiences, right from the first day in the program. Imagination and creativity is a natural part of play in childhood (Cobb, 1977) yet it is also heavily influenced by past experiences, culture, personal preferences as well as the immediate environment. As illustrated above, the forest spots offered the children with an ample amount of affordances through the malleable, open ended materials. The environment provoked the children to continuously imagine things that may be out of the ordinary. At the same time, the influence of popular culture was also present in the children's imaginative play, as it is a part of their everyday life. For instance, Oliver's concept of a mermaid could not have arisen without his knowledge of childhood culture, as with Star Wars or 'Angry Birds.' These insights regarding the imagination and the influence of children's everyday lives seems to align with current research in the early childhood

field, as many scholars state that outdoor environments are rich in open-ended and malleable loose parts that invite children to create and engage in complex play behaviours (e.g. Wilson, 2008). It leads to the suggestion to take advantage of opportunities that disorganized and unsanitary environments may offer for young children, and the great potential that could have on a young child's imagination.

## **4.5. Experiencing Curiosity**

With the forest being full of diverse elements, it is easy to become curious about the things one sees. Research has found that children are attentive to the natural world, being fascinated by living and non-living things (Wilson, 2008). The above sections discussed insights regarding positive emotions of joy, calmness and pride, as well as social dynamics, non-human empathy, challenging emotions of fear, dislikes and pain. Next, I elaborated on how imagination plays a large role to the children's experiences. As with imagination, curiosity was also seen as a strong feature of their experiences. With a child's sense of curiosity and exploration (Cobb, 1977), the children expressed their interests about the natural environment that they spent time in, expressing their wonders through their words, and actions. I strive to divide this section into three parts. First, I will discuss their experience of curiosity about animals and wildlife, second, natural elements and third, death.

### **4.5.1. Curiosity about animals and wildlife**

Children are especially drawn to animals in the natural environment (Wilson, 2008). This is indeed true in the case of these children, as the forest was full of species that they never, or rarely, encountered in the past. I quickly found that the children wanted to approach, examine and find out more about the animals that they were seeing:

It was late January and we were hiking towards a forest spot down the usual path. Lilly, Joshua and Aron were walking in the back of the group within a short distance with Lilly leading the way. Suddenly, a black raven has flown down and sat a few feet away from where they were walking. It captured the children's attention as Lilly pointed, "*Look! A black bird!*" The

three stopped walking and looked at bird from a short distance. Lilly began walking slowly towards the raven as the two boys followed' behind her. As they got closer, the raven flew away but sat down on a nearby rock. Again, the children began walking slowly, till the raven flew away and sat down in a third spot. This repeated one more time, until the raven flew away to the distance. "*I think the bird got too scared*" replied Lilly (January 28, 2013).

With Lilly leading the way, the three were curious to approach the bird closer, with the possibility for them to get close enough to perhaps touch the bird. Back in November, a similar incident happened:

As all of us were hiking, a small bird, what it appeared to be a thrush, sat on a nearby branch and the children took notice. After catching the children's attention, the teacher explained, "that looks like a little thrush." "*Shh shh!!*" Aron tried to signal to everyone to stay quiet... "*They eat seeds!*" Lilly remarks. "*They eat bugs!*" John adds. "*Worms!*" Caden concluded. After a while, the bird flew away and the group began walking ahead while pretending to be birds (November 19, 2013).

The children's experiences in the forest involved a lot of curiosity, questions and desire to learn more about the animals which they were encountering. This incident made me smile, as I recall similar incidents to this in my childhood, but with squirrels. My neighbourhood in Poland was habituated by many squirrels, I was always curious and wanted to follow them to learn what sounds they had made, what games they played, and where they slept. Pelo (2013) reflected on a similar incident with a three-year old child named Dylan. As they spotted a heron on their tracks, Pelo (2013) noted: "I sit on the footpath, Dylan lowers herself onto my lap, and we watch the heron. Long, quiet minutes pass. The heron, motionless: body poised, head angled towards the water, eyes intent, unblinking. We watch the heron and the heron watches for fish, all of us with a singleness of attention and commitment that binds us to the moment and to each other.... Dylan looks at me, eyes wide" (p.154). Dylan was full of awe, as she never had seen a heron before. The excitement rose as they witness the heron catch and eat a fish. This aligns with the fascination described by Dowdell et al (2011) when the children in her study observed a huntsman spider, a zebra-like slug and a tadpole. In the forest environment, the children are keen on exploring their fascinations with enthusiasm and curiosity, allowing them to question, theorize and discover.

In the scenarios above the curiosity of animals captured the children's attention for longer periods of times, and often opening conversations and further inquiry after the episode had happened. Other times, however, children's attention failed to be captured in the same intensity. In autumn, Lilly, John and I were playing by the water and Lilly suddenly grabbed our attention, "*shhhhhhhhh...do you hear that?*" John and I stopped, I was confused about what she was referring to, as I did not hear an unusual sound. "*Oh yah, the ducks, shh!*" John joined Lilly's enthusiasm. The three of us stopped our play, and began looking at the ducks. I did not expect their interest to be geared towards an animal that they encountered many times before. "*The ducks have a language!*" Lilly remarked as she yelled out, "*quack quack*". This prompted John to begin a game: "*I spy with my little eye...*" he said. "*A duck!*" Lilly answered. "*You're right!*" He replied (January 30, 2014). These children were captured by the duck that they had heard, yet, it was only for a short period of time in which they proceeded back into their previous play activity. I am uncertain as to why the duck episode did not seem to reside with the children as much as with other animals, such as black ravens or thrush birds, but perhaps it is because the duck was an animal they had frequently seen and experienced in their lives, as opposed to other birds which they possibly only encountered in the forest. However, I cannot make the case for this here, as I can only theorize.

#### **4.5.2. Curiosity about natural elements**

The children's curiosity also extends towards other natural elements of the forest. I took note of when I spent time with Oliver in mid-October during our play:

While talking about favourite play activities of the day, Oliver was quite distracted picking off the moss from a tree that he was closely facing. He touched and rubbed his fingers on the bark and the green moss in close proximity. I asked a question, but he was too distracted to listen: "*Specks... do you see the specks?*" he asks as he pinched the bark and looked at me. "*Aren't they unusual?*" He asked. "*Sorry?*" I replied. His investigation caught me off guard, as I was focused on asking questions. "*Specks. Aren't they unusual?*" he repeated as he looked back to the moss. "*Aren't they unusual?*" I mimicked his words. "*Yah, these are brown bits of stuff,*" he points to the moss. "*Oh yah,*" I finally took notice (October 22, 2013).

I was surprised about Oliver's attentiveness and interest to the detail of the tree. He spent about twenty minutes interacting and examining the moss and bark, while the other children played games of chase. He noticed the fine details, and seemed quite aware of the variety of colours and textures that the element offered. His curiosity and attentiveness amazed me, as I joined him with the intention of asking him about his experience from the earlier part of the day. He was learning about the world around him through his own investigations. Later on, Oliver drew a picture of the bark he had seen, selecting the perfect shades and details to reflect its details (*Figure 4.10. Oliver's drawing of the bark*)



**Figure 4.10. Oliver's drawing of the bark**

I noticed a sense of curiosity amongst other children, including Lilly, when she was keen on looking up while hiking one day in October. As I walked beside her I inquired about what she did that day. I noticed her not paying attention, and instead looking straight up above me. I inquired, and she explained: "*because of the trees... I am trying to tell what colours they are*" (Sept 24, 2013). The children also took notice of the changing seasons of the forest. For instance, Aron noticing how the water level has changed in the stream that we played in: "*The water is gone, the water is gone!*" he yelled out to me as we approached the rocky beach, pointing his finger to the edge of

the water. Similarly, Lilly's curiosity was captured by a frozen leaf she found on a cold winter's day:

The temperature is cold and the frost has settled on the ground, with the blue sky above us. As we were hiking, Lilly looked down and noticed a frozen leaf resting on the ground. "*Ohh, look at that, Oliver... look what I found*" she walked over to Oliver holding the leaf in her hand. Oliver looks, but Lilly keeps walking while holding the leaf in her hand, and closely examining it and its details.

Her amazement about the frozen leaf was clear, as she held the leaf in her palm and closely observed its details. She had seen many leaves, but this was the first time she encountered one on a cold, frosty day. Golden (2013) writes, "the forest is a vast and fruitful field for children's inquiry. Un-groomed, wild spaces in particular hold mysteries just waiting for a child to come along to discover. For young children, even a small patch of wilderness yields plenty of interest, from insects to leaves, roots and berries; there is plenty to see, touch, draw and talk about" (p.136), and this is precisely what these children had experienced.

#### **4.5.3. Curiosity about death in nature**

While spending time in the forest, we were confronted with the idea of death, and the life cycle. Some children seemed to be particularly curious about the death of animals we had encountered. For instance, one day we were observing salmon jumping upstream. It was a fascinating experience and the children had asked many questions, "where are they going?" "why are they jumping?" as they were engrossed with enthusiasm every time a salmon jumped out to the higher stream successfully. As we walked alongside the stream, we noticed an unpleasant smell fill the air. The children cried out: "*Eww, it smells so bad!*".. "*It smells like seafood!*" We had noticed the remains of a dead salmon on the shoreline. But it was Joshua who was getting closer to the salmon remains. He seemed incredibly captivated. The rest of the children wanted to keep walking down the path, so they called Joshua over to join. He did, and as we arrived to our playing spot, he approached me with a serious expression and tone in his voice: "*I want to see the salmon again.*" I listened, and we left the group to see the remains. He grew silent when we arrived. He approached the corpse slowly, and stood

few inches away from its white, rotting body. We stood there, and I waited to follow his lead. I eventually asked a question wondering how it got there, but Joshua did not reply. I noticed it was time to go home and asked Joshua to go back to our playing spot, in which he agreed upon. The next day, his mother approached me and told me of the impact that witnessing the dead salmon had on him.

Pelo (2013) had quite a similar experience with Dylan. On an autumn day, they had reached a stream full of fast-moving and jumping salmon. The both of them stepped into the water to be closer, and in that process, had seen a body of a silver, dead salmon floating towards them. It had caught Dylan's attention as the three year old never seen such a sight. With her limited knowledge of death, Dylan was intrigued by the look of this dead fish. Pelo (2013) writes: "I lift the tiny silver fish from the water and hold it on the palm of my hand. Dylan and I bend over the fish, studying its sleek body, its unblinking eyes, its v-ing tail, the delicate filigree of its scales. We touch our fingertips to the fish's belly and explore the coolness of its skin and its texture, neither smooth nor rough, but 'bumpy,' as Dylan describes it" (p.131). Although Dylan was younger than Joshua, they both experienced the sense of awe towards death, and the natural life cycle within nature.

Carson (1965) claimed that children experience the world through their natural sense of wonder. As the children acquainted themselves with the forest, their attention turned to the details, from noticing the "specks" in the wood, or the various water levels in the creek, to being confronted with a dead animal. By acting upon their curiosities, these children became interested in the complexities of a forest. Dowdell et al (2011) state that the natural environment becomes an environment for learning. Similar to the children I worked with, the children in their study noticed the seasons changing, gaining an understanding of how the seasons influence natural elements (Dowdell et al, 2011), such as Aron's particular interest to the lower water level in the stream. Young children learn best from using their inborn curiosities about the world around them. But, as Carson (1965) warns, if not used, this could easily be lost by the time these children reach maturity.

As this section entails, the children experienced curiosity for what they had seen in the forest. First, they were shown to be curious about animals and wildlife that they had noticed, such as birds. However, at times the curiosities quickly evaporated as the children quickly returned to their previous activity. Next, the children were also shown to be curious towards natural elements of the forest, noticing its fine details such as the changing water levels or the specks of a tree bark. Lastly, with Joshua's noteworthy experience, some children had experienced times they were drawn to the idea of death while being in the forest, such as seeing the remains of a salmon. Overall, it seems that their curiosities continued as they spent more time in the forest and made more discoveries, without the educator's lead or initiation. The educator was not the leader of the discoveries, but merely the follower in answering their questions and remaining open to the children's inquiries.

## **4.6. Experiencing Thrill and Risk-Taking**

As discussed above, the children lived through various forms of experiences in the forest, whether it was positive, challenging, imaginative or inquisitive. Yet, one of the children's central experiences in the forest program was their eagerness to often seek thrill through risk. To clarify, risk in play involves children attempting to achieve a desired goal that may hold a potentially harmful result (Sandseter, 2009). Stephenson (2003) claims that children's definition of 'risk' have key commonalities: "attempting something never done before; feeling borderline 'out of control' often because of height or speed, or overcoming fear" (p.36). As I will further elaborate, attempting risk in play brings about interchangeable emotions of pure fear and excitement, or as Oliver called it: the 'good' kind of spooky. To elaborate the children's experiences of thrill and risk-taking, I first discuss experiences of thrill-seeking games, then, I explore the natural inclination to seek risky behaviours as well as persistence.

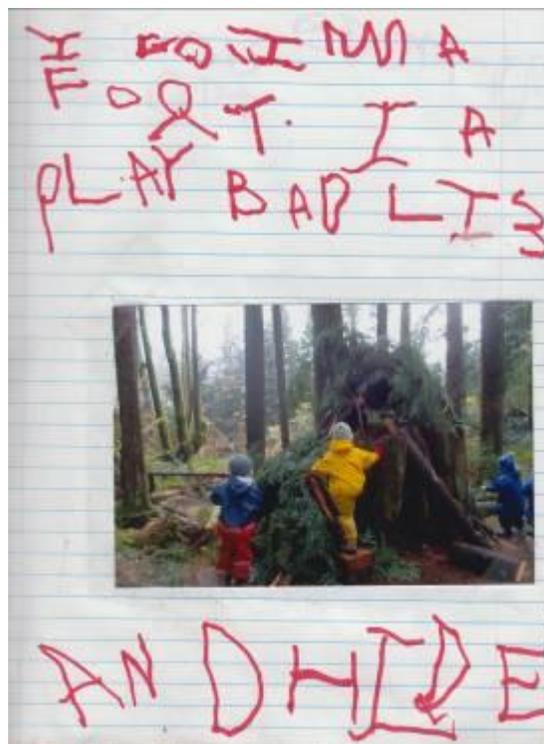
### **4.6.1. Thrill-seeking games**

Constructed and initiated by the children, 'bad teacher' was a game which all of the children consistently asked to play. The teacher was always nominated for the villain, and was instructed to run around and chase the children while they screamed and hid. I

was nominated to play the villain at times as well. The children teased and challenged me to catch them – “*na na na! You can't get me!*” as Lilly slowly approached me and then ran away jumping over the roots and rocks, yelling “bad teacher is coming!” Other children hid in empty tree stumps in suspense waiting for me to arrive (*Figure 4.11. Hiding in suspense from 'bad teacher'*). As the rest of the children saw the game unfold, they joined in without hesitation. Joshua elaborated on this excitement in his forest book, (refer to *Figure 4.12. Joshua's 'forest book' illustrating bad teacher*). It was an enticing game for them to play, as they explained through conversations, drawings and their forest books. Other games of similar rules were also played, including ‘bad guys and good guys’ where the children ran away from the bad guy so they wouldn’t be placed in jail – which was found between two trees. On a different occasion, we were in a forest spot that was in a midst of many low fern bushes on the ground, small streams of water and trees. Lilly and Oliver initiated a game that they later called ‘dinosaurs.’ It had begun with Oliver yelling out: “*Ah! Dinosaurs!*” amidst the ferns which reached his chest. The other children joined in and the game officially begun. “*I'm a T-REX!*” yelled out Oliver to Joshua. “*Me too! I'm a T-REX as well!*” Joshua called back while the others were running, hiding and full of energy. Other times, majority of the boys also used the natural elements, such as sticks, as guns or swords in their play. This was especially seen with John and Joshua as well as Aron, running and chasing each other while imitating the noises of the chosen weapons.



**Figure 4.11. Hiding in suspense from 'bad teacher'**

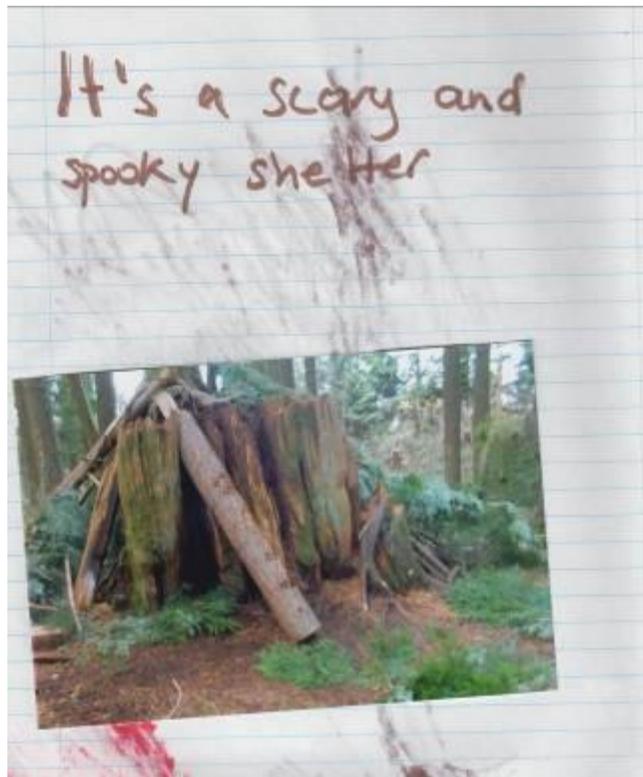


**Figure 4.12. Joshua's 'forest book' illustrating bad teacher**

As seen in Oliver's description in his forest book (refer to *Figure 4.13. Oliver's forest book illustration*), the children described these games as 'spooky' and 'fun' interchangeably. When they hid in their secret spots, they whispered in soft voices,

hiding, and holding their breath until the teacher approached close enough for them to run away. They sought to induce the adrenaline feeling of rush. These interchangeable feelings speak to what Sandseter (2009) observed. The children were 'spooked' yet wanted to partake and experience the sense of rush while being chased or attempting other risk behaviours. Similarly, Stephenson (1999) observed such game-chasing games as well, including 'Mr.Wolf' games where one was a predator and the others were prey.

At times, the adult partook in 'bad teacher' because of the children's initiation. However, the adult remained only in the role of the bad villain. While the teacher often accepted the invitation for the games, I had also seen the struggle at times in attempting to step aside from the role and separate herself from the children's experiences. Upon my inquiry, she explained her 'hands off' philosophy of allowing the children to play without her influence. This is quite an interesting insight, as it illustrates the child-driven philosophy of the forest program, and the dynamics that children perhaps may not be used to in their everyday lives of following an adult's lead. Perhaps the forest has the potential to offer children with the unique opportunity to initiate, and follow their own preferences. As I further illustrate, the forest offers the environment that invites such risky behaviours, enabling the children to run at high speeds, hide in various nooks of the forest, and use their surroundings to fulfil the children's desires.



**Figure 4.13. Oliver's forest book illustration**

#### **4.6.2. Attempting Physically Challenging, Risky Behaviours**

Like Oliver, who described climbing as his favourite activity, all of these children enjoyed some type of physical risk, whether it was balancing, climbing or running full speed downhill. One day, I see some of the children playing on a steep path and took a photo (refer to *Figure 4.14. Running downhill*):

There is a steep, gravel road that goes to beaver trail. While already into the play, the children, as a group, went up the steep hill (all of the children) and were standing on the top. I hear Oliver yelling, "*run down!*" and Lilly, who sitting on her bottom, slides down a bit, gets up on her feet and runs down the hill, arms stretched out, and running quickly towards the bottom. She stops, and then keeps on running. Behind her, the rest of the group begins running as well. Joshua slides on his bottom and then turns to slide on his stomach. The rest of them run down, extending their

arms into the air, running quickly towards the bottom of the hill. Oliver yells out as he passes me “woo!” in excitement (January, 14, 2014).



**Figure 4.14. Running downhill**

The expressions that the children held on their faces revealed their enthusiasm for this activity, which was repeated several times throughout the months. At times, their faces ended up bright red with heat as they continued this activity throughout the day, quickly taking off their warm layers of clothing throughout the cool months. In a different forest spot, there was a giant boulder which the children enjoy climbing and sliding on. It was inevitably the first activity that the children engaged in when arriving to the forest spot. As this scenario illustrates:

Caden, Aron and Joshua climbed on the boulder by walking up with their hands out on the side of their bodies. Caden sits down and slides as he yells out: “*here I come, get out of the way!*” Aron follows him, and then Joshua. But before Joshua has the chance to slide down, both Aron and Caden climb back up. As Joshua slides down, he yells: “*again!*” and then climbs back up on his feet. The boys continue sliding up and climbing back up at more intense speeds every time. Then, as Caden slides, he yells out “*watch out! I’m going to jump down!*” and he slides down with full force with a faster pace. “*Whoa! That was fast, Caden*” the teacher calls out, as he climbs back up the boulder. Now, the boys are pushing their

bodies off the top of the boulder to gain more speed – “yah! Let’s do another slide!” Joshua cries out (January 30, 2014).

I witnessed these three boys constantly pushing their limits. As their comfort level with the rock increased, they were pushing themselves harder to gain more momentum on the slide down. Ridgers et al (2012) as well as O’Brien and Murray (2007) noted that young children first need to feel a sense of familiarity and comfort in the forest prior to engaging in various levels of risk. As these three boy’s familiarity with the forest grew, so did their individual levels of risky behaviours. A clear example of this is through Aron’s log balancing, as I saw the difference of his skill level from the beginning to the end of the program:

Caden and Aron are playing with a thin, fallen over log that is about 15 inches off the ground. The log is not thick enough to place both feet side-by-side, and the boys could only walk on it by placing one foot after the other. Caden, who had experienced balancing on logs throughout his past, was walking straight across the log with a moderate pace. He is looking down and stretching his arms out slightly. Aron looks in curiously from the ground as Caden balances. As Caden gets to the other end, Aron hops on top of the log. His technique is different than Caden’s, however. Instead of facing forward as Caden did, Aron placed his body to the side, moving slowly by dragging his left foot, and then right while his arms flare in the air. His body seems shaky, as he loses his balance and falls. He then goes back to the beginning and tries again, but this time facing forward, as Caden did. He walks at a quicker pace and falls again (October 15, 2013).

A few weeks later, I observed Aron balancing on a log again. He was quicker and eager to get to the other side. This time, his body wasn’t shaking and his body continued to face forward. He got acquainted with balancing, and enjoyed the challenge. On a different occasion, Joshua and Oliver decided to take a risk in exploring a tunnel, which was a large hollow log overgrown with flora on the ground (refer to *Figure 4.15. Exploring a New Tunnel*):

“Joshua wants to go in there!” Oliver yells out to the teacher. The teacher gave Joshua the flashlight. He looked into the tunnel, wanted to go in but hesitating. After a few moments, Joshua looks at me, then back into the tunnel. He slowly crawls in. He doesn’t go in too far only two steps or so,

and then crawls back out the same way he got in. He goes back in and Oliver sits back and watches him. “*May I go in there with you now?*” he calls to Joshua but doesn’t hear a response. Oliver then turns to me: “*That’s a great shelter!*” I ask why, and he responds: “*Because it’s really dark,*” he then yells into the tunnel: “*Excuse me Joshua! You’re not going to be able to come out from there! Hurry out!*” When Joshua comes out, he hands the flashlight to Oliver. I asked how Joshua felt when in there: “*I could get lost! I could get clogged in there!*” Oliver then holds on to the flashlight and yells out, “*ok!*” as he slowly goes into the tunnel. He then disappears off into the tunnel for few moments, and reappears on the other end. Joshua, seeing this, runs over to the tunnel again and goes in, coming out the other side this time (January 14, 2014).



**Figure 4.15. Exploring a New Tunnel**

I asked Joshua how he felt being in there. He replied by simply staring at me with his wide-eyes: “*spooky! I’m going to go all the way in again!*” As I continued talking with Oliver and Joshua, they both expressed that they feel “good,” and attempted to go into the tunnel repeatedly. After Joshua got out of the tunnel the second time around, his excitement enthralled him as he shouted: “*I love it! I didn’t needed a flashlight!*” I asked him what he saw in there, and he replied: “*Nothing!*” I then asked him how he felt, and he answered: “*good! It is super fun!*” He continued to go into the tunnel throughout that day. Now the tunnel represented a fear that was overcome.

### 4.6.3. Persistence

I was surprised to see how persistent the children were at times to reach the desired outcomes. Although often careful and fearful in attempting new things, I noticed the group often persisted in overcoming their fears and attempting the tasks they set out to do. For instance, on a rainy, winter's day, *Oliver* wanted to jump off a tree root high off the ground – higher than I have seen him jump before:

*"I'm going to jump!"* Oliver yelled out to his grandmother who was volunteering that day as she stood in front and watched him. He stood at the very end of the tree root, wobbling back and forth and looking down. He moved his feet but didn't jump. Caden stopped what he was doing and watched from the sideline beside me. *"Will you spot me?"* Oliver asked his grandmother. *"Sure, but I won't catch you in my arms. So you will need to do this without me...I won't be strong enough to catch you in my arms"* his grandmother replied. Oliver then backed out, and walked over to the lower part of the tree root, jumped and landed on his all-fours. He bounced back up and climbed the tree root again, climbing to tallest part he initially aimed to jump from. This time, he jumped without apprehension. He climbed back onto the root and repeated the action again, several times (January 30, 2014).

Oliver was familiar with jumping off logs, but never from such great heights. His first effort failed, but he climbed back up to complete the desired jump. This was common amongst children when climbing up or down the tree stumps. Children often desired to climb the top of a stump, or climb down without falling. They faced many challenges with these climbs, especially on rainy days or new stumps they were not acquainted with. A memorable moment was with Lilly, who desired to join the rest of the group to climb a slippery log on a rainy day. The others were successful in their climb, but Lilly was struggling and uncertain. As I stood nearby, she paused in the midst of her climb and I asked if she was okay. In a high-pitched voice, she replied that she was feeling scared. I asked whether she wants to keep going and she confirmed, questioning as to why she wanted to keep pushing if she felt frightened: *"Because I think I can do it,"* she replied. She began to climb down slowly in the middle of the stump, and yelled out with enthusiasm: *"I can do it, I can do it... I got it!"* with a wide smile once she succeeded. Although Lilly faced some challenging obstacles and was faced with fear, she persisted.

As elaborated in the section exploring the experience of challenging emotions, the persistence was not always the case but nevertheless, a frequent one worth mentioning.

Young children frequently seek out and enjoy risk in their lives (Stephenson, 2003). From infancy and flourishing into early childhood, they strive to gain mastery over their physical bodies, learning how to become independent and achieve self-competence (Trimble, 1994). Stephenson (2003) suggests that the persistence and confidence may extend to other areas of a child's current and future life, and help with the overall wellbeing and potential. As the above illustrations shown, and as I previously discussed in this chapter, the forest entices children to engage in experiences they may not necessarily engage in as deeply in their everyday lives. Although inconsistent with the quantitative study by Stroli and Hagen (2010) who showed that young children's physical activity levels remained the same between traditional playgrounds and natural environments, these experiences correspond with Waters and Begley's (2007) small-scale exploratory study which shown that the two, four-year-old children both experienced heightened risk-taking experiences in the forest as opposed to a school's playground. Even the child who was labelled as 'risk-averse' child who was known to comply to quiet activities in the school yard, embodied risk-taking behaviours in the forest, such as swinging, climbing, running at fast speeds on the rocky terrain and balancing. Kaarby (2003) and Golden (2013) also concurred that outdoor play influences a child's behaviour by observing them partake in behaviours which involve their physical bodies, such as climbing steep hillsides or using them as slides, throwing rocks, jumping, rolling their bodies and balancing. For instance, Abel, a child in Golden's (2013) study named the creek to be her favourite place of the forest, as she had made a hidden slide from a stack of fallen leaves which lead to a gully which she used all year round with "great joy" (p.133).

In all, I witnessed risk seeking behaviours in all of the six children's experiences in the forest. Although I did not witness Lilly engaging in weapon play, or partake in as many climbing activities in comparison to the other children, she did engage in frequent running or thrilling game-play. As previously mentioned she also engaged in risk while climbing up the challenging terrain of a stump. Sandseter (2009) reminds us that every child perceives risk at different levels, and thus, the level of risk is largely dependent on the child's individual character and personal degrees of risk propensity. The children

whose emotions of joy are not overcome by fear will engage in more risk play. Although on various levels, all of these children engaged in a form of risk-inducing behaviours which brought upon expressions of fear and enjoyment interchangeably. Other scholars, such as Greenfield (2004), and Sandseter (2009) agree, as both girls and boys engaged in various amounts of risk-inducing play behaviours in their studies. Water and Begley (2007) add that the forest environment actually increases a child's probability to take risk.

As the literature review entailed, scholars agree that children have the desire to step outside of their personal comfort levels and engage in various levels of risk. It is a part of young children's desire to expand upon their expertise and increase their independence (Smith, 1998; Stephenson, 2003), and is said to be a part of a young child's healthy development (Maynard, 2007). Unlike a traditional child care centre or playground, a forest is not designed specifically with a child's safety in mind. In consequence, the forest program offers ample natural physical-risk taking opportunities. This introduces a challenge for educators to balance their pedagogical role of allowing children to tackle physical risks, yet being obliged to protect them from degrees of physical harm. Maynard (2007) stresses that, in a forest program philosophy, children are introduced to safety rules and undertake activities to understand meanings of safety. For instance, the children I worked with were allowed to play with sticks no longer than the length of their arms, or stay within the adult's view-point. High educator-child ratio is equally as important (Maynard, 2007), as was used in this program (1:3 was the typical adult-child ratio).

Yet, in reflecting from personal experience, I found 'letting-go' and allowing children to take physical risks to be most challenging. My practice in the early childhood education field had trained me to keep a child's immediate safety as the uttermost priority, where the 'culture of fear' is playing a large role in early childhood programming (Waters & Begley, 2007). Becoming a part of the forest program presented the personal challenge of recognizing the immediate hazards or dangers. Balancing the personal dilemma of when to step in, or when to step out was a difficult one, especially at the beginning of my time there. Research in the field supports this, in discussing pedagogical orientations regarding risk in childhood (Smith, 1998) and highlighting the anxieties that early childhood educators face regarding physical risk in childhood (e.g.

Maynard & Waters, 2007; Waters & Begley, 2007). Working alongside an educator who had already implemented a 'hands-off' practice has helped me to recognize that these children were capable of tackling physical challenges, and allowed me to gain trust in the children's abilities. This trust, as Smith (1998) explores, is needed in knowing when to step back or guide a child in a risky play situation. The benefit of a small child-teacher ratio also allowed me to gain knowledge of each child; their preferences, abilities, difficulties and overall, personal characteristics. This has helped in the process of judging when to intervene, but yet, this process takes time and it is not a flawless solution to the tension. The hermeneutic process of reflection has helped me to draw attention to the personal struggle I am faced with, as an educator, while spending time in a forest program. Reflecting upon these as well as my own risk experiences, personal comfort levels and personal beliefs regarding risk taking, guided me.

#### **4.7. Experiencing physical manipulation: Human over nature hierarchy**

In discussing the insights so far, I illustrated the complexity of experiences these six children had in the forest program. From positive self-fulfilling emotions, to challenging dislikes and fears, the children expressed experiences related to their imaginations, curiosities, empathy and group dynamics. Lastly, I ended with an exploration regarding risk taking behaviours in the forest environment. To continue the discussion, I will now lead into a discussion regarding the children's manipulative actions regarding the natural world, and the human over nature hierarchy tension. The children were fascinated with destruction and manipulation of physical elements, as well as testing their personal strength by breaking ice sheets, throwing, climbing, and manipulating objects such as moving, or wobbling thick branches. This was evident across all of the children, but more with others. John in particular, was constantly breaking or throwing ice in wintertime:

John and Oliver came to the river and saw that the shore of the river was frozen, leaving behind large sheets of ice between the larger rocks. John came up closer; holding a stick, he began pounding the ice while bending

over. He hit it several times until a piece of the sheet of ice shattered. Once the piece shattered, he took it out with his other hand, and threw it into the river. Then he began pounding again for another piece of ice to break. I ask what he is doing: *"I'm trying to break the ice"* as he made noises every time he hit the ice sheet. He stood up and yelled out three times: *"ice, ice, ice!"* to the other children around him (February 11, 2014).

This incident lasted the entire morning, and continued on the following day. The children often yelled out *"hi-yah!"* or *"boom!"* when crushing or throwing the ice, then observing the consequences. In the months when the ice melted, the children engaged in other tasks. The ice-breaking transformed into a stick breaking activity, in which John took stick pieces and climbed with them onto stumps, and then threw them to see whether they would break (January 30, 2014). On a separate occasion, Joshua and Lilly tested out a branch extending from a tree that was hovering over the ground. I decided to wait and see what they will do next:

Joshua grabbed onto the branch with both of his hands, closer to the roots. Lilly soon after followed it and stood beside him, also grabbing onto the tree. Joshua initiated by slowly pulling the branch using his whole body down to the ground. He held on with both hands, and bending his knees and body forward to bring it closer to the ground. The branch seemed heavy. He then let go slightly and the branch sprung back up. He let go and looked at Lilly, as she did the same – grabbing the branch, bending her knees and bringing it to the ground. She let go and the branch sprung back up higher than it was before, above their heads. Joshua watched as she repeated, bringing the branch to their face level. As she was pulling the branch up and down, she yelled, *"maybe we need to use lots of muscle! ...I am using all my muscle!"* to Joshua. Joshua then grabs the branch and pulls it up and down more vigorously than before, making the branch move faster with more power (October 22, 2013).

Both Lilly and Joshua expressed their enjoyment for the activity. After further inquiry, they revealed that they wanted to break the branch to play with its sticks. Episodes of physical manipulation surfaced in other ways throughout the seasons, such as breaking sticks, kicking branches or picking off moss. The children often dragged large tree branches on the ground to move them, break them and use them for their own desires. This insight is interesting, as it is contradictory to the experience of empathy that I discussed earlier in this chapter and thus, showing the complexity of the children's

experiences. John in particular was often expressing this type of manipulation, although others engaged in it as well, including Lilly. This adds on the understanding that the experiences these children underwent in the forest program were not linear, nor straightforward. They experienced an array of different behaviours and actions throughout the months that I spent with them – whether positive or more troublesome, such as ripping out moss or other living organisms.

From my experiences in the early childhood field, I continuously hear of other educators experiencing destructive behaviours with natural and living elements. Reflecting upon this insight, I recall a moment in my practice, while I was introducing young children to a worm compost project in a child care centre. I allowed the children to touch the worms that were in the compost bin, and even though I had continuously reminded the children of the gentle nature of worms, some children were keen on pulling or throwing them. Other educators described this tension as well, and expressed uncertainty about how to handle and respond to such behaviours. Spending time in the forest brings on an understanding that manipulative behaviours are highly probable. It is beneficial for educators to discuss such tensions, reflect on the purpose of bringing children into a forest, as well as reflect on what behaviours they think are acceptable or unacceptable, and why.

## **4.8. Chapter Summary**

This chapter illustrated the complexity of the types of experiences these six children had in the forest, while offering glimpses of insights for early childhood educators wanting to engage children in forest environments. To begin, I discussed the positive aspects of experiencing joy, as well as calmness and pride. Next, I discussed the social dynamic aspect of friendship, negotiation and empathy for the non-human world, such as trees or branches. Challenging experiences of fears, various dislikes and tiredness as well as pain were also discussed, as part of the experience which all the children had at some point throughout my time with them. Use of imagination was also an evident aspect of the children's experience, as the forest held a wealth of open-ended materials that enticed imaginative play. Yet, the role of popular culture also influences the type of play the children experienced. I also reflected upon the children's curiosity,

whether it was for the living animals of the forest, or the elements in which they had found animals, whether dead or alive. In addition to physical manipulation, the complexity of risk-taking was also discussed, as were the interchangeable emotions of fear and pure thrill in their everyday experience in the forest.

## **Chapter 5. Conclusion**

### **5.1. Chapter Overview**

First, I reflect on the aims and the research question that I set out to explore in my dissertation. Next, I discuss the fundamental discoveries that I gained throughout this process, using hermeneutic phenomenology (van Manen, 1990) as well as the Mosaic approach (Clark & Moss, 2004). Lastly, the significance, limitations and suggested areas of future study are discussed.

### **5.2. Aims of Research and Research Question**

I recall my childhood years occupied with time spent outside, whether alone, with friends, relatives or my older brother. On a typical day, my mother called me indoors for dinner when the time came. Technology was not apparent in my childhood years. Computers were non-existent as a common family household item, neither were cell phones or other handheld devices. Although television sets were present, they were used minimally to watch cartoons from time to time. Our urban culture in North America has changed. It is now more common for young children to own cell phones, computers and have television screens in their bedrooms (Rowen, 2015). These changes have caused children to experience the world quite differently than those of previous generations. Studies note a shift taking place of young children's outdoor exploratory play into an increase of indoor sedentary activities (Bonnett & Williams, 1998; Zaradic & Pergams, 2007; Zaradic & Pergams, 2008; Elkind, 2001; Postman, 1994; Louv 2008). Outdoor structured programs, such as recreational sports, have also been increasing in popularity (Active Health Kids Canada, 2014). These findings suggest that while outdoors, the majority of children are being enrolled in structured programs. These

changing patterns have led many scholars to proclaim that we live in a world where children are being over-scheduled and stressed (e.g. Elkind, 2001).

As a response to the changing culture of childhood in urban North America, forest programs have been gaining popularity. These educators dedicate time for their children to play freely in the forest, where they have the opportunity to invent and initiate their own games and activities. Rather than a leader, the educator strives to serve as a collaborator throughout the day, allowing the children to take their own lead and follow their curiosities (Child and Nature Alliance of Canada, 2012). Yet, if the activity has the potential to endanger a child's wellbeing, such as climbing on weak tree branches or playing near cliffs, the teacher has the obligation to intervene and protect them from harm. With my own childhood experiences and cultural shifts in mind, I found it would be valuable to study the actual experiences that a small group of young children have while being enrolled in a forest program.

For five consecutive months, I collaborated with a group of six, four-year-old children at a forest program located in British Columbia. I set out to research their experiences of being in that program, exploring the research question: *What are four-year-old children's experiences in a forest program?* Hermeneutic phenomenology stood out as ideal for my research purpose. Due to its reflective nature, it allowed me to connect myself to the research, reflect upon my own experiences and connect it to what these children experienced. This methodology required my personal interests to come into play, something that would be rather difficult for me to ignore. I intertwined hermeneutic phenomenology (van Manen, 1990) with the Mosaic approach (Clark & Moss, 2004) to allow children to reflect and express their subjective forest program experiences in a meaningful way. The participating children took photographs, drew pictures, took me on tours, made personal books about their experiences and engaged in conversations with me. Ongoing observations and personal journaling also helped me capture and make sense of the experiences.

Following these methods allowed me to explore the experiences that these young children underwent while being enrolled in a forest program. This fascinated me as my own childhood was spent in close contact with the natural world, whether it was

independently or with the care of guardians, friends and/or siblings. I must reiterate that I was never enrolled in a forest program in my own childhood and yet, these children share the major commonality with me of having unstructured time in nature. The difference in today's modern world is that some parents feel the need to intentionally schedule time for their children to be in nature and ironically scheduling time for unstructured play.

### **5.3. Major Conclusions**

Collaborating with six children resulted in complex findings about their experiences in the forest program. From joyful emotions to fear and tiredness, conflict and collaboration, the children had exposure to a variety of experiences which prompted them to learn about themselves and the world around them (full list of insights is available at the end of this chapter, Appendix B). I will now use this final chapter to reflect upon my major conclusions regarding the children's experiences in the forest program, covering topics of: imagination, risk-taking, the impact of adult presence, and the concept of romanticizing forest programs.

#### **5.3.1. Imagination**

Whether playing in group games or independently, the children unequivocally involved the surrounding features of the forest in their play. I relate this back to the theory of affordances (Gibson, 1979), where each type of physical environment differentiates in the opportunities that they offer to children. A forest with rich affordances, for example, stimulates complex imaginary play. As with these children's experiences, the rounded rock peeping out of the river offered the children the idea of imagining being chased by a whale. Or, the stick covered in a thin layer of frost that Lilly found on the ground inspired her to use it as a magic stick to perform tricks that otherwise would not be possible. The children enjoyed the forest for the possibilities that allowed them to express their desire to imagine and create. It is important to note that such experiences were unique to this forest and could not be bought in a teacher's catalogue, nor replicated or pre-planned by a teacher. The forest is special in that it has the potential to offer open-ended, malleable and versatile opportunities without the

specific design and tailoring for young children. Through the continuous change of temperature and the many textures of the materials, this forest always seemed to offer new and exciting opportunities for the children to imagine.

### **5.3.2. Risk**

As with imagination, all of the children were drawn to experience an abundance of risk on a regular basis. I recall my first few weeks when my eyes widened with disbelief with the risk the children were taking as they were climbing trees and high stumps. My heart raced, intuitively wanting to protect them from harm. It took me quite a while to learn when to step back and trust the children's judgement. Such educator anxieties are noted in literature as well, as educators may struggle with their personal comfort levels of risk, while balancing their obligations to provide a safe, child-friendly environment (Waters & Begley, 2007; Maynard & Waters, 2007). Each child was exhibiting risky behaviours, in accordance with his or her personal comfort level. This was seen in Aron's log balancing attempts, as he never attempted the task prior to the program. Aron was visibly apprehensive, yet he attempted the task to cross a thick branch with many unsuccessful attempts. After weeks, I had seen him fall and attempt different body positions to help him balance on low, and then on higher branches. Due to his appeal of the risk and reward, he eventually became an expert at the task and continuously attempted to balance on more challenging terrains. This example and many others illustrate the experience of personal challenge that these children experienced in the forest program. Like imagination, such willingness to take risks cannot be pushed upon a child or instructed by a teacher. Instead, the forest is special as it naturally provides the children (and adults) with new challenges and appealing opportunities to take risks. I found that the forest always grew with the children's abilities, as they noticed new challenges and opportunities to tackle.

### **5.3.3. Impact of Adult Presence**

When I was young, some of the times I spent outdoors were shared with adult caregivers. However, the majority of my outdoor time was spent in the absence of adult presence. This is quite different to these children's experiences in the forest program, as

the adult presence of was quite noticeable given the high child-adult ratio. In addition to being scheduled to be there, children of similar ages from different communities were present, as well as a primary educator, a community volunteer and a parent. This adult presence influenced the children's experiences. Although the primary educator held a 'hands-off' philosophy, she engaged with the children and intervened when anticipating a risk of a catastrophic injury, as well as brought comfort when children were crying, and took leadership by taking the children to the play spots. Although infrequent, the participation of adults in games (such as 'bad teacher') was also present. Parent as well as community volunteers were partaking in the children's play at times as well. I also observed reflections of pride as well, as the children frequently called out "I did it" or "see what I can do" in moments of satisfaction to the adults. While noticing the impact of the adult presence, I began reflecting upon what it means to the culture of childhood in today's world, and whether children in our culture have the same sense of freedom they once did, or whether limits are placed upon their risk taking capabilities.

Many scholars highlight that caregivers play an important role in influencing experiences children have in natural environments (e.g. Carson, 1965; Wilson, 2008). Wilson (2008) as well as others (e.g. Chawla & Hart, 1995) point that a supportive caregiver who embraces and understands the importance of the natural world is one of the two key ingredients for sustaining a child's relationship with nature, the second one being the physical proximity to wild places. What needs to be stressed in their claims is that it is the *role* that the caregivers adopt that makes the difference and not their mere presence as educators have the potential to hinder children's outdoor experiences. Hindrances may happen through an educator's own fears, past negative experiences or assumptions regarding forests environments or appropriate ways of children's play. For a caregiver to be positive role-model for outdoor play, they must attain an open mind and encourage children to play outdoors in prolonged periods of interrupted time (Wilson, 2008). Reflecting upon the educator's role, I recall upon a particular children's book I enjoy reading, "The other way to listen" by Baylor and Parnall (1978). Although it is a children's book, the storyline has influenced my journey as an educator, as it tells a story about the importance of allowing children to spend prolonged and uninterrupted time in nature to hear its voices. As there is a high adult presence in the forest program, educators must particularly pay attention to this message. Continuous reflection upon

own biases, assumptions, surprises and past experiences brings awareness and encourages one to take leaps and tackle positive challenges.

#### **5.3.4. Romanticizing forest programs**

There is a body of literature that discusses the vast benefits that arise from spending time outdoors, suggesting the significant benefits of nature play (e.g. Louv, 2008). Being aware of this literature as well as my own childhood memories, I joined the forest program with a romanticized notion of what forest programs entail. However, I quickly realized that the children did not always have positive experiences in the forest, as there was a plethora of challenges, failures, fears, dislikes and physical pain that the children struggled with on a regular basis. For instance, hiking back to the meeting spot brought frequent physical exhaustion that the children had to endure on every visit. The difficulty was especially true for the coastal winter climate, with frequent rain and snow falls. The children had the potential to be cold, and being uncomfortable enough to become distracted and wanting to go back home. The program did its best to emphasize the importance of preparedness, such as wearing layers of wool or synthetic clothing, but it was an inevitable fact that a child would be in discomfort at some point or another. I was also surprised to learn that not all children enjoyed getting dirty or playing in mud. I had assumed that it was an enjoyable activity shared amongst all young children. Popular literature may not always mention the challenges of taking young children into a forest environment. This hints at the notion that caregivers with limited forest experience may not recognize threats, and instead glamorize about what forest programs entail. These pre-conceptions may indeed present real dangers to young children if potential struggles or dangers are not taken into consideration.

#### **5.4. Limitations**

Following a hermeneutic phenomenological method is not an easy journey (Holroyd, 2007). As hermeneutic phenomenology is a method *without* a method (van Manen, 1990; Hoyrold, 2007; Hein & Austin, 2001), I sometimes found myself perplexed

in deciding which route to align my research with, or at times feeling lost with my research path. Being a researcher who had limited past knowledge of the philosophy and first time employing such methods, I needed to make and follow my own path of learning and positioning my beliefs into my research. With this understanding, I pursued this method because I deeply believe that as a reflective researcher, I cannot separate my own values and beliefs from the research project. Recognizing this, I suggest for educators pursuing this method of study to remain open to making their own way into the research with confidence by involving their own subjectivities, biases and journeys through reflection.

While working with the children, I felt limited by the program schedule as I collected data only within the program's time frame. Instead, perhaps it would have been beneficial to additionally set time prior or after the program's schedule to debrief with each child on their experiences. I also felt the influence of my active presence in the forest program. The program does not typically allow technological gadgets into the forest. Yet, I gained permission to bring digital cameras into the children's experience. This incontestably impacted the children's experiences within the 'typical' life of the program, as now, the presence of my activities and technology (such as cameras and voice recorders) was introduced into the forest experience. This placed a limitation on seeing how the children's experiences would have been without my researcher presence, as they were often distracted with my research activities. As discussed in the major conclusions, the presence of the adults in the program also impacts the children's experiences, and must be taken into consideration while reflecting on my insights. Ultimately, children's interaction with the forest was ever-changing and never static (Gadamer, 1975). I cannot make the case that the experiences I have written about could be generalized into every child's forest experience. With my personal reflections intertwined, my research can only capture a glimpse of the subjective experience I had with these children with the recognition that experience is subjective, ever-changing and never static (Gadamer, 1975). Hermeneutic phenomenology does not serve to offer theory, but instead, an insight of the essences of personal experiences (van Manen, 1990; Packer, 1985).

## **5.5. Implications for Future Research**

Based on my research journey and insights, I propose further research topics that relate to early childhood experiences in a forest program. First, the group of children I collaborated with were mostly boys. I wonder if the gender imbalance (one girl versus five boys) impacts their experiences in the forest, as past studies hint at the gender differences of forest experiences. Next, as different forest spaces afforded children with different opportunities, I am curious to study the children's experiences specific to various forest settings – such as streams, valleys and dense forest spots, and even neighbourhood parks. Now that I hold an understanding of the overall experience these children had in the forest program, I would find it of further interest to concentrate on one part of their experience, such as focusing on imagination, risk-taking or experiences of empathy in forest programs. For example, how do these children experience the specific dynamics of empathy while in a forest program? Last, I would be curious to gain insights of how children experience human-made outdoor programs in contrast to forest settings, such as structured playgrounds or groomed parks. This would allow an insight of how children experience contemporary settings of human made designs specifically aimed for young children.

## References

- Active Health Kids Canada (2014). 2014 Active Healthy Kids Canada Report Card on Physical Activity for Children and Youth. Retrieved from [http://dvqdas9jty7g6.cloudfront.net/reportcard2014/AHKC\\_2014\\_ReportCard\\_Short\\_ENG.pdf](http://dvqdas9jty7g6.cloudfront.net/reportcard2014/AHKC_2014_ReportCard_Short_ENG.pdf).
- Alderson, P. (1995). *Listening to children. Children, ethics and social research*, London: Barnardos.
- Änggård, E. (2010). Making use of "Nature" in an outdoor preschool: Classroom, home and fairyland. *Children, Youth and Environments*, 20(1), 4-25.
- Arlemalm-Hagser, E (2006) Gender, playing and learning in natural environments. In J.Brodin and P. Londstrand (eds) *Interaction in Outdoor Play Environments: Gender, Culture and Learning*. Stockholm: Stockholm Institute of Education. Research Report no.47, pp.23-44.
- Bartosh, O., Tudor, M., Ferguson, L., & Taylor, C. (2006). Improving test scores through environmental education: Is it possible? *Applied Environmental Education and Communication*, 5(3), 161–169.
- Bentz, V. M., & Shapiro, J. J. (1998). *Mindful Inquiry in social research*. Thousand Oaks, CA: Sage.
- Berg, M., & Medrich, E.A.(1980). Children in four neighborhoods: The physical environment and the effect on play and play patterns. *Environment and Behaviour*, 12(3), 320-348.
- Berman, M. G., Jonides, J., & Kaplan, S. (2008). The cognitive benefits of interacting with nature. *Psychological Science*, 19(12), 1207-1212.
- Boekhoven, B.(2009). *"Caution! Kids at Play?": Unstructured Time Use among Children and Adolescents*. Ottawa: Vanier Institute of the Family.
- Bonnett, M., & Williams, J. (1998). Environmental education and primary children's attitudes towards nature and the environment. *Cambridge Journal of Education*, 28(2), 159.

- Bouvier, L.(2006, November 8). Newsroom: Children need more time for unstructured play: Free play time crucial to children’s development. *The Canadian Council on Learning*. Retrieved March 26, 2013, from [http://www.cclca.ca/ccl/Newsroom/Releases/20061107\\_ChildrenPlay.html](http://www.cclca.ca/ccl/Newsroom/Releases/20061107_ChildrenPlay.html).
- Brussoni, M., Olsen, L., Pike, I., & Sleet, D. (2012). Risky play and children’s safety: Balancing priorities for optimal child development. *International Journal of Environmental Research on Public Health*, 9, 3134-3148.
- Canning, N.(2013). ‘Where’s the bear? Over there!’ – Creative thinking and imagination in den making. *Early Childhood Development and Care*. 8(183), 1042-1053.
- Carson, R, & Pratt, C. (1965). *The sense of wonder*. New York: Harper & Row.
- Chawla, L. (2002). Spots of time: Manifold ways of being in nature in childhood. In P.H. Kahn & S.R. Kellert (Eds.), *Children and nature: Psychological, sociocultural, and evolutionary investigations* (pp.199-226). Cambridge, Mass: MIT Press.
- Chawla, L. (2007). Childhood experiences associated with care for the natural world: A theoretical framework for empirical results. *Children, Youth and Environments*, 17(4), 144-170. Retrieved from [http://www.colorado.edu/journals/cye/17\\_4/17\\_4\\_07\\_CareForNaturalWorld.pdf](http://www.colorado.edu/journals/cye/17_4/17_4_07_CareForNaturalWorld.pdf).
- Chawla, L., & Hart, R.A. (1995). The roots of environmental concern. *The NAMTA Journal*, 20(1), 148157.
- Chiari, G., & Nuzzo, M. L. (1996a). Personal construct theory within psychologicalconstructivism: Precursor or avant-garde? In B. M. Walker & J. Costigan & L. L.Viney & B. Warren (Eds.), *Personal construct theory: A psychology for the future* (pp. 25-54). Melbourne: Australian Psychological Society Imprint Series.
- Child and Nature Alliance of Canada (2012). Forest school Canada: About forest school Canada. Victoria, BC. Retrieved March 26, 2013, from <http://childnature.ca/forestschoolcanada>.
- Clark, A. (2003) The Mosaic approach and research with young children, in V. Lewis, M. Kellet, C. Robinson, S. Fruser and S. Ding (Eds) *The reality of research with children and young people*, London: Sage Publications, pp. 157–61.
- Clark, A.(2005). Listening to and involving young children: A review of research and practice. *Early Child Development and Care*, 175(6).
- Clark, A., & Moss, P. (2004). *Listening to Young Children: The Mosaic Approach* (Second Edition). London, GBR: National Children's Bureau.

- Cobb, E. (1977). *The Ecology of Imagination in Childhood*. New York: Columbia University Press.
- Cole, M. (2010). Hermeneutic phenomenological approaches in environmental education research with children. *Contemporary Approaches to Research in Mathematics, Science, Health and Environmental Education*.
- Cook, T. & Hess, E. (2003) Contribution for early childhood education collaborative, paper presented at the Annual Conference of the European Early Childhood Research Association, Glasgow, September.
- Crain, W. (2001). How nature helps children develop. *Montessori Life*, 13(3), 22-24.
- Creswell, J.W.(2012). Educational research: Planning, conducting, and evaluating quantitative and qualitative research (4th ed.). California: Sage publications.
- Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches*. Los Angeles: SAGE Publications.
- Cris, R. (2015). Moving to learn. Retrieved from <http://movingtolearn.ca/>.
- Crotty, M. (1998). *The foundations of social research: Meaning and perspective in the research process*. California: Sage Publications.
- Cushing, J. (2009). "Where do the children play? Film Review." *Children, Youth and Environments* 19(1). Retrieved March 26, 2013, from <http://www.colorado.edu/journals/cye/>.
- Davis, J. (2004). *Psychological benefits of nature experiences: An outline of research and theory with special reference to transpersonal psychology*. Retrieved from [http://www.soulcraft.co/essays/psychological\\_benefits\\_of\\_nature\\_experiences.pdf](http://www.soulcraft.co/essays/psychological_benefits_of_nature_experiences.pdf).
- Davis, J. M. (2009). Revealing the research 'hole' of early childhood education for sustainability : a preliminary survey of the literature. *Environmental Education Research*, 15(2). pp. 227-241.
- Clark, C. D. (2011). *In a younger voice: Doing child-centered qualitative research*. New York: Oxford University Press.
- Derr, V.(2002). Children's sense of place in Northern New Mexico. *Journal of Environmental Psychology*, 22, 125-137.
- Dilthey, W., Makkreel, R. A., & Rodi, F. (1989). Introduction to the human sciences. Princeton, N.J: Princeton University Press.

- Dockett, S. & Perry, B. (2003) Children's voices in research on starting school, paper presented at the Annual Conference of the European Early Childhood Education Research Association, Glasgow, September.
- Dowdell, K., Gray, T., & Malone, K. (2011). Nature and its influence on children's outdoor play. *Australian Journal of Outdoor Education*, 15(2), 24-35.
- Elkind, D. (2001). *The hurried child: Growing up too fast too soon*. Cambridge, Mass: Perseus Publishing.
- Ellis, J. (2006). Researching children's experience hermeneutically and holistically. *Alberta Journal of Educational Research*, 52(3), 111-126.
- Ellis, J. (2010a). The importance of attending to children and place. In G. S. Goodman (Ed.), *Educational Psychology Reader: the Art and Science of How People Learn* (pp. 386-402). New York: Peter Lang.
- Ellis, J. (2010b). Researching children's place and space. In G. S. Goodman (Ed.), *Educational Psychology Reader: the Art and Science of How People Learn* (pp. 355-369). New York: Peter Lang.
- Engdahl, K., & Lindstrand, P. (2006) Play and interaction in two preschool yards. In J. Brodin and P. Lindstrand (eds) *Interaction in Outdoor Play Environments: Gender, Culture and Learning*. Stockholm: Stockholm Institute of Education. Research Report no.47, pp.45-60.
- Ezzy, D. (2002). *Qualitative analysis: Practice and innovation*. London: Routledge.
- Faber Taylor, A., Wiley, A., Kuo, F. & Sullivan, W. (1998). Growing up in the inner city: Green spaces as places to grow. *Environment and Behavior* 30(1), 3-27.
- Fargas-Malet, M., McSherry, D., Larkin, E., & Robinson, C. (2010). Research with children: Methodological issues and innovative techniques. *Journal of Early Childhood Research*, 8(2): 175-192.
- Fjortoft, I., & Sageie, J. (2000). *The natural environment as a playground for children: Landscape description and analyses of natural playspace*. *Landscape and Urban Planning*, 48(1-2), 83-97.
- Fjortoft, I., (2001) 'The Natural Environment as a Playground for Children: the impact of outdoor play activities in pre-primary school children', *Early Childhood Education Journal*, 29 (2), pp. 111 – 117.
- Flewitt, R. (2005). Conducting research with young children: some ethical considerations. *Early Child Development and Care*, 175(6), pp. 553–565.

- Freeman, M. (2014). The hermeneutical aesthetics of thick description. *Qualitative inquiry*, 1(7), 1-7.
- Frost, J (2010). *A history of children's play and play environments: Toward a contemporary child-saving movement*. New York : Routledge.
- Gadamer, H. G. (1975). *Truth and method*. New York: Seabury Press.
- Gardiner, H., & Kosmitzki, C.. (2008). *Lives across cultures: Cross-cultural human development*. Boston, MA: Allyn & Bacon/Pearson.
- Giorgi, A. (1970). *Psychology as a Human Science*. New York : Harper & Row.
- Gleave, J.(2009). *Children's time to play: a literature review*. London: Playday 2009: Make Time! By NBC. Retrieved March 26, 2013, from <http://www.playday.org.uk/pdf/Childrens-time-to-play-a-literature-review.pdf>.
- Golden, A. (2013). Preschool children explore the forest: The power of wild spaces in childhood. In D.R. Meier & S. Sisk- Hilton (Eds.). *Nature Education with Young Children* (pp.123- 136). New York: Routledge.
- Gravett, M. (2013). Putting the forest on the map: Using documentation to further natural inquiry. In D.R. Meier & S. Sisk- Hilton (Eds.). *Nature Education with Young Children* (pp.137-152). New York: Routledge.
- Greene, S., & Hogan, D. (2005). Anthropological and Sociological perspectives on the study of children. In S.Greene, & D.Hogan (Eds.), *Researching Children's Experience*. (pp. 43-61). London, England: SAGE Publications Ltd.
- Greenfield, C. (2004) Can run, play on bikes, jump the zoom slide, and play on the swings: Exploring the value of outdoor play. *Australian Journal of Early Childhood*, 29(2), 1-5.
- Greenfield, C. (2011). Personal reflection on research process and tools: Effectiveness, highlights and challenges in using the Mosaic approach. *Australasian Journal of Early Childhood*, 36(3),109-116.
- Haluza-Delay, R. (2001). Nothing here to care about: Participant constructions of nature following a 12-day wilderness program. *The Journal of Environmental Education*, 32(4), 43-48.
- Hart, R. (1992). Children's participation. From tokenism to citizenship. *UNICEF: United Nation Children's Fund*. Retrieved from [http://www.unicef-irc.org/publications/pdf/childrens\\_participation.pdf](http://www.unicef-irc.org/publications/pdf/childrens_participation.pdf).
- Hart, R. (1979). *Children's Experience of Place: A Developmental Study*. New York: Irvington Publishers Inc.

- Harwood, D. (2010). Finding a voice for child participants within doctoral research: Experiences from the field. *Australian Journal of Early Childhood*, 35(4), 4-13.
- Heerwagen, J.H., & Orians, G.H. (2002). The ecological world of children. In P.H. Kahn & S.R. Kellert (Eds.), *Children and nature: Psychological, sociocultural, and evolutionary investigations* (pp.29-63). Cambridge, Mass: MIT Press.
- Heidegger, M. (1962). *Being and time*. New York: Harper.
- Hein, S., & Austin, W.J (2001). Empirical and hermeneutic approaches to phenomenology in psychology: A comparison. *Psychological Methods*, 6(1), 3-17.
- Henriksson, C., & Friesen, N. (2012). *Hermeneutic phenomenology in education: Method and practice*. Rotterdam: Sense Publishers.
- Henriksson, C., & Saevi, T. (2009). "An event in sound" Considerations on the ethical-aesthetic traits of the hermeneutic phenomenological text. *Phenomenology & Practice*, 3(1), 35-58.
- Hewes, J. (n.d.) Let the children play: Nature's answer to early learning. *Early Childhood Learning: Knowledge Centre*. Retrieved March 26, 2013, from <http://www.ccl-cca.ca>.
- Hill, M. (2005). Ethical issues in qualitative methodology with children. In D. Hogan, ed. & R. Gilligan (Eds.), *Researching children's experiences: Qualitative approaches* (pp.11–22). Dublin: The Children's Research Centre, Trinity College.
- Holroyd, A. (2007). Interpretive hermeneutic phenomenology: Clarifying understanding. *Indo-Pacific Journal of Phenomenology*, 7(2), 1-12.
- Hurworth, R. (2003) Photo-interviewing for research, Social Research Update. Retrieved from <http://www.soc.surrey.ac.uk/sru/SRU40.html>.
- Husserl, E. (1970). *The idea of phenomenology*. Dordrecht; Boston: Kluwer Academic.
- Jacobs, M.H. & Manfredi, M.J. (2008). Decline in nature-based recreation is not evident. *National Academy of Sciences of the United States of America*, 105(27), Retrieved March 26, 2013, from, <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2453718/?tool=pmcentrez&rendertype=abstract>.
- Jacobson, L. (1999). Changing Versions of Childhood. *Education Week*, 18(24), 32.

- Jorgenson, J., & Sullivan, T. (2009). Accessing Children's Perspectives Through Participatory Photo Interviews. *Forum Qualitative Sozialforschung / Forum: Qualitative Social Research*, 11(1). Retrieved from <http://www.qualitative-research.net/index.php/fqs/article/view/447/2890>.
- Kahn, P. H., Jr., & Hasbach, P. H. (Eds.). (2012). *Ecopsychology: Science, totems, and the technological species*. Cambridge, MA: MIT Press.
- Kahn, P. H., & Kellert, S. R. (2002). *Children and nature: Psychological, sociocultural, and evolutionary investigations*. Cambridge, Mass: MIT Press. Kahn, P.H. (2013). The next phase for ecopsychology: Ideas and directions. *Ecopsychology*, 5(3), 163-165.
- Kakkori, L. (2009). Hermeneutics and phenomenology problems when applying hermeneutic phenomenological method in educational qualitative methods, *Paideusis*, 18(2), 19-27.
- Kane, A., & Kane J. (2011, Fall). Waldkindergarten in Germany: How unconventional programs employ extended immersion in nature to foster empathy and stimulate intellectual development among young people. *Green Teacher*, 94, pp. 16-19.
- Kaplan, R. (2001). The nature of the view from home: Psychological benefits. *Environment and Behavior*, 33(4), 507-542.
- Kaplan, R., & Kaplan, S. (1989). *The experience of nature*. New York: Cambridge University Press.
- Kaplan, S. (1995). The restorative benefits of nature: Toward an integrative framework. *Journal of Environmental Psychology*, 15(3), 169-182.
- Kellert, S. R, Wilson,E.O (1993). *The biophilia hypothesis*. Washington, D.C: Island Press.
- Kellert, S.R. (2002). Experiencing nature: Affective, cognitive, and evaluative development in children. In P.H. Kahn & S.R. Kellert (Eds.), *Children and nature: Psychological, sociocultural, and evolutionary investigations* (pp.117-152). Cambridge, Mass: MIT Press.
- Kirby, M.A. (1989). Nature as refuge in children's environments. *Children's Environments Quarterly*, 6(1), 7-12.
- Kirk, S. (2007). Methodological and ethical issues in conducting qualitative research with children and young people: A literature review. *International Journal of Nursing Studies*, 44(7). 1250-1260.
- Koch, T. (1996). Implementation of a hermeneutic inquiry in nursing: Philosophy, rigour and representation. *Journal of Advanced Nursing*, 24,174- 184.

- Kytta, M. (2004). The extent of children's independent mobility and the number of actualized affordances as criteria for child-friendly environments, *Journal of Environmental Psychology*, 24(2), 179-198.
- Kytta, M. (2006) *Environmental Child-Friendliness in the Light of the Bullerby Model*. In Spencer, C. and M. Blades, eds. *Children and Their Environments*. Cambridge: Cambridge University Press, 141-158.
- Laverty, S. M. (2003). Hermeneutic phenomenology and phenomenology: A comparison of historical and methodological considerations. *International Journal of Qualitative Methods*, 2(3). Article 3. Retrieved from [http://www.ualberta.ca/~iiqm/backissues/2\\_3final/html/laverty.html](http://www.ualberta.ca/~iiqm/backissues/2_3final/html/laverty.html).
- Little, H., Wyver, S., & Gibson, F. (2011). The influence of play context and adult attitudes on young children's physical risk-taking during outdoor play. *European Early Childhood Education Research Journal*, 19(1), 113-131.
- London Sustainable Development Commission (2011). *Children and Nature: A Quasi – Systematic Review of Empirical Evidence*. Greater London Authority. Retrieved <https://www.playaustralia.org.au/content/children-and-nature-quasi-systematic-review-empirical-evidence>.
- Louv, R. (2008). *Last child in the woods: Saving our children from nature-deficit disorder*. Chapel Hill, N.C: Algonquin Books of Chapel Hill. Lynch, K. (1997). *Growing up in cities*. Cambridge, MA: MIT Press.
- Maller, C., Townsend, M., Pryor, A., Brown, P., & Leger, L. S. (2006). Healthy nature healthy people: 'contact with nature' as an upstream health promotion intervention for populations. *Health Promotion International*, 21(1), 45-54.
- Mandell, N. (1988). The least-adult role in studying children. *Journal of contemporary ethnography*, 16, 433-467.
- Maruna, S., & Butler, M. (2005). Phenomenology. In K. Kempf-Leonard (Ed.), *Encyclopedia of Social Measurement* (Vol 3). (pp. 49-52). Elsevier.
- Massey, S. (2005, April). The benefits of a forest school experience for children in their early years. *Early Years Mentor Teacher for Worcestershire LEA*, 33, 27-35. Retrieved from [http://www.nfer.ac.uk/nfer/pre\\_pdf\\_files/05\\_33\\_06.pdf](http://www.nfer.ac.uk/nfer/pre_pdf_files/05_33_06.pdf).
- Maynard, T. (2007) Encounters with Forest School and Foucault: a risky business? *Education 3-13*, 35(4): 379-391.
- Maynard, T., & Waters, J. (2007). Learning in the outdoor environment: A missed opportunity. *Early Years*, 27(3), 255-256.

- Melhuus, C. (2012). Outdoor day-care centres – a culturalization of nature: how do children relate to nature as educational practice? *European Early Childhood Education Research Journal*, 20(3), 455-467.
- Merleau-Ponty, M. (2002). *Phenomenology of perception*. New York; London: Routledge.
- Mills, A.(2009) Early childhood education takes to the outdoors. *Edutopia*. Retrieved from <http://www.edutopia.org/early-childhood-outdoor-education-waldkindergarten>.
- Moore, L.L., Gao, D., Bradlee, M.L., Cupples, L. A., Sundarajan-Ramamurti, A., Proctor, M.H., Hood, M.Y., Singer, M.R., & Ellison, R.C. (2003). Does early physical activity predict body fat change throughout childhood? *Preventative Medicine*, 37, pp.10-17.
- Mulhall, S (1996). *Routledge philosophy guidebook to heidegger and being and time*. New York; London: Routledge.
- Munday, R. (2009). Glossary of terms in *being and time*. Retrieved from [http://www.visual-memory.co.uk/b\\_resources/b\\_and\\_t\\_glossary.html](http://www.visual-memory.co.uk/b_resources/b_and_t_glossary.html)
- Muñoz, S.A. (2009). Children in the outdoors: A literature review. *Sustainable Development Research Centre*. Retrieved from [http://www.educationscotland.gov.uk/images/Children%20in%20the%20outdoors%20literature%20review\\_tcm4-597028.pdf](http://www.educationscotland.gov.uk/images/Children%20in%20the%20outdoors%20literature%20review_tcm4-597028.pdf)
- Murray, R., & O'Brien, L. (2005, October). 'Such enthusiasm - A joy to see" An evaluation of forest school in England. *Forest Research*. Retrieved from [http://www.forestry.gov.uk/website/pdf.nsf/pdf/forestschoolenglandreport.pdf/\\$file/forestschoolenglandreport.pdf](http://www.forestry.gov.uk/website/pdf.nsf/pdf/forestschoolenglandreport.pdf/$file/forestschoolenglandreport.pdf).
- Nabham, G.P. (1994). A child's sense of wilderness. In G.P. Nabham & S.Trimble (Eds.), *The geography of childhood: Why children need wild places*. (pp.3-16).
- Nabhan, G. P., & Trimble, S. (1994). *The geography of childhood: Why children need wild places*. Boston: Beacon Press.
- Nicholson, S. 1971. How not to cheat children: The theory of loose parts. *Landscape Architecture* 62, no.1: 30–4.
- Nicholson, S. (1971). How not to cheat children: The theory of loose parts. *Landscape architecture*, 62, 30-34.
- Nutbrown, C., Clough, P., & Selbie, P.(2008). *Early Childhood Education: History, Philosophy and Experience*. London: SAGE Publishing Inc.

- O'Brien, L. (2009). Learning outdoors: the Forest School approach, *Education 3-13: International Journal of Primary, Elementary and Early Years Education*, 37(1), 45-60.
- O'Brien, L. & Murray, R., (2007). Forest School and its impacts on young children: case studies in Britain. *Urban Forestry and Urban Greening*, 6 (4), 249–265.
- O'Brien, L. and Murray, R. (2006) A marvellous opportunity for children to learn. A participatory evaluation of Forest School in England and Wales. *Report to the Forestry Commission by nef and Forest Research*. Retrieved from [http://www.forestry.gov.uk/website/pdf.nsf/pdf/fr0112forestschoolsreport.pdf/\\$file/fr0112forestschoolsreport.pdf](http://www.forestry.gov.uk/website/pdf.nsf/pdf/fr0112forestschoolsreport.pdf/$file/fr0112forestschoolsreport.pdf)
- Orr, D.W. (2004). *Earth in Mind: On Education Environment, and the Human Prospect*. Washington, DC: Island Press.
- Packer, M. (1985). Hermeneutic inquiry in the study of human conduct. *American Psychologist*, 40, 1081-1093.
- Paley, V. (1986). On listening to what the children say. *Harvard Educational Review*, 56(2), 122.
- Paley, V. (2004). *A child's work: the importance of fantasy play*. Chicago: University of Chicago Press.
- Palmer, J. (1993). Development of concern for the environment and formative experiences of educators. *Journal of Environmental Education*, 24, 26–30.
- Pelo, A. (2013). *The goodness of rain: Developing an ecological identity in young children*. New York: Basic Books.
- Perry, B. (2003). Why young children are curious. *Early Childhood Today*, 17(4), 26.
- Polkinghorne, D. E. (1989), Phenomenological research methods. In R. S. Valle & S. Halling (Eds.), *Existential-phenomenological perspectives in psychology: Exploring the breadth of human existence* (pp. 41-62). New York: Plenum.
- Postman, N. (1994). *The disappearance of childhood*. New York: Vintage Books.
- Randall, D. (2012) Revisiting Mandell's 'least adult' role and engaging with children's voices in research. *Nurse Researcher*. 3(19), 39-43.
- Ridgers, N.D., Knowles, Z.R., & Sayers, J. (2012). Encouraging play in the natural environment: A child-focused case study of Forest School. *Children's Geographies*, 10(1), 49-65.

- Rowen, C. (2015). Moving to learn: Exploring the effects of technology on children. Retrieved from <http://movingtolearn.ca/>.
- Sammel, A. (2003). An invitation to dialogue: Gadamer, Hermeneutic Phenomenology, and Critical Environmental Education. *Canadian Journal of Environmental Education*, 8(1), 155-168.
- Sandberg, A., & Vuorinen, T. (2006) From hayloft to own room – girls' play environments. In J. Brodin and P. Lundstrand (eds) *Interaction in Outdoor Play Environments: Gender, Culture and Learning*. Stockholm: Stockholm Institute of Education. Research Report no.47, pp.1-22.
- Sandseter, E.B.H. (2009). Children's expressions of exhilaration and fear in risky play. *Contemporary issues in Early Childhood*, 10(2), 92-106.
- Sandseter, E.B.H. (2012). Restrictive safety or unsafe freedom? Norwegian ECEC practitioners' perceptions and practices concerning children's risky play. *Child Care in Practice*, 18(1), 83-101.
- Schleiermacher, F., & Heinz, K. (1977). *Hermeneutics: The handwritten manuscripts*. Missoula, Mont: Published by Scholars Press for the American Academy of Religion.
- Schmidt, L. K. (2006). *Understanding Hermeneutics*. Durham, GBR: Acumen. Retrieved from <http://www.ebrary.com>
- Schratz, M. & Steiner-Löffler, U. (1998) Pupils using photographs in school self-evaluation, in: J. Prosser (Ed.) *Image-based research. A sourcebook for qualitative researchers*. London, Falmer Press, 235–251.
- Sebba, R. (1991). The landscapes of childhood-The reflection of childhood's environment in adult memories and in children's attitudes. *Environment and Behavior*, 23 (4), 395-422.
- Shim, S.K., Herwig, J.E. Shelley, M. (2001). Preschoolers' play behaviors with peers in classroom and playground settings. *Journal of Research in Childhood Education*, 15(2), 149-163.
- Smith, S (1998). *Risk and our pedagogical relation to children: On playground and beyond*. Albany: State University of New York Press
- Skår, M., & Krogh, E. (2009) Changes in children's nature-based experiences near home: from spontaneous play to adult-controlled, planned and organized activities. *Children's Geographies*, 7(3), 339-354.
- Smith, J.A., Flowers, P., & Larkin, M. (2009). Interpretative Phenomenological Analysis: Theory, Method and Research. *Qualitative Research in Psychology*, 6(4).

- Smith, J.A., Jarman, M. & Osborne, M. (1999). Doing Interpretative Phenomenological Analysis. In M. Murray & K. Chamberlain (Eds.) *Qualitative Health Psychology: Theories and Methods*. London: Sage.
- Sobel, D. (1990). A place in the world: Adults' memories of childhood's special places. *Children's environments quarterly*, 7(4), 5-12.
- Sobel, D. (2008). *Childhood and nature: Design principles for educators*. Portland, Me: Stenhouse Publishers.
- Spiegelberg, H.(1982) *The phenomenological movement: A historical introduction* (3<sup>rd</sup> rev. and enlarged ed.). The Hague: Martinus Nijhoff.
- Spinelli, E. (1989). *The interpreted world: An introduction to phenomenological psychology*. London: Sage.
- Stephenson, A. (1999) Opening up the outdoors: A case study of young children's outdoor experiences in one childcare centre. Wellington: Institute for Early Childhood Studies, Victoria University of Wellington.
- Stephenson, A. (2003) Physical Risk-Taking: dangerous or endangered? *Early Years*, 23(1), 35-43.
- Stroli, R., & Hagen, T.L (2010). Affordances in outdoor environments and children's physically active play in pre-school. *European Early Childhood Education Research Journal*, 18(4), 445-456.
- Taylor, A. F., & Kuo, F. E. (2006). Is contact with nature important for healthy child development? State of the evidence. In C. B. Spencer, M (Ed.), *Children and Their Environments: Learning, Using and Designing Spaces*. Cambridge, UK: Cambridge University Press.
- Taylor, A. F., & Kuo, F. E. (2009). Children with attention deficits concentrate better after walk in the park. *Journal of Attention Disorders*, 12(5), 402-409.
- Taylor, A.F., Kuo, F.E., & Sullivan, W.C.(2002) Views of nature and self-discipline: Evidence from inner city children. *Journal of Environmental Psychology*, 22, 49-63.
- Tennessen, C. M., & Cimprich, B. (1995). Views to nature: Effects on attention. *Journal of Environmental Psychology*, 15(1), 77-85.
- Tesch, R. (1987). Emerging themes: The researcher's experience. *Phenomenology + Pedagogy*, 5(3), 230-241 Retrieved from <http://ejournals.library.ualberta.ca/index.php/pandp/article/view/15058/11879>

- Trimble, S. (1994). The scripture of maps, the names of trees. In G.H Nabhan & S.Trimble (Eds.). *The geography of childhood* (pp.17-31). Boston: Beacon Press.
- Van Arcken, M. (1990). Nature experiences of 8-to-12-year-old children. *Phenomenology and pedagogy* 8, 86-94.
- Van Manen, M. (1984). Practicing phenomenological writing. *Phenomenology +Pedagogy*, 2(1), 36-69.
- Van Manen, M. (1990). *Researching lived experience: Human science for an action sensitive pedagogy*. Albany, N.Y.: State University of New York Press.
- Van Manen, M. (1997). Phenomenology of practice. *Phenomenology & Practice*, 1(1), 11-30. Retrieved from <http://www.maxvanmanen.com/files/2011/04/2007-Phenomenology-of-Practice.pdf>.
- Van Manen, M. (2002). *Writing in the dark: Phenomenological studies in interpretive inquiry*. London, Ontario: The Althouse Press.
- Van Manen, M. (2006). Writing qualitatively, or the demands of writing. *Qualitative health research*, 16(5), 713-722. Retrieved from <http://www.maxvanmanen.com/files/2011/04/2006-Writing-Qualitatively.pdf>.
- Van Manen, M. (2011). *Phenomenology Online: A Resource for Phenomenological Inquiry*. Retrieved from <http://www.phenomenologyonline.com/>.
- Van Manen, M. (2014). *Phenomenology of practice: Meaning-giving methods in phenomenological research and writing*. Walnut Creek, CA: Left Coast Press, Inc.
- Veale, A. (2005). Creative methodologies in participatory research with children. In S. Greene & D. Hogan. (Eds.), *Researching Children's Experience: Methods and Approaches* (pp.253-272). Thousand Oaks, CA: Sage.
- Verbeek, P.. & de Wall, F.B.M. (2002). The prime relationship with nature: Biophilia as a general pattern. In P.H. Kahn & S.R. Kellert (Eds.), *Children and nature: Psychological, sociocultural, and evolutionary investigations* (pp.1-27). Cambridge, Mass: MIT Press.
- Veselinovska, S.S., Petrovska, S., & Zivanovic,J (2010). How to help children understand and respect nature? *Procedia Social and Behavioral Sciences* 2, 2244–2247.
- Ward, C. (1987). *The children in the city*. London: Bedford Square Press.

- Waters, J. & Begley, S. (2007) Supporting the development of risk-taking behaviours in the early years: an exploratory study, *Education 3-13: International Journal of Primary, Elementary and Early Years Education*, 35:4, 365-377.
- Waters, J & Maynard, T. (2010). What's so interesting outside? A study of child-initiated interaction with teachers in the natural outdoor environment, *European Early Childhood Education Research Journal*, 18(4), 473-483.
- Weinstein, N., Przybylski, A. K., & Ryan, R. M. (2009). Can nature make us more caring? Effects of immersion in nature on intrinsic aspirations and generosity. *Personality and Social Psychology Bulletin*, 35(10), 1315-1329.
- Wells, N. M. (2000). At home with nature : Effects of "greenness" on children's cognitive functioning. *Environment and Behavior*, 32(6), 775-795.
- Wells, N., & Lekies, K.(2006). Nature and the life course: Pathways from childhood nature experiences to adult environmentalism. *Children, Youth and Environments*, 16(1), 1-24.
- Wells, N.M., & Evans, G.W.(2003). Nearby nature: A buffer of life stress among rural children. *Environment and Behavior*,35(3), 311-330.
- Wilcke, M.M. (2002). Hermeneutic phenomenology as a research method in social work. *Currants: New Scholarship in Human Services*, 1(1). Retrieved from [http://www.ucalgary.ca/currents/files/currents/v1n1\\_wilcke.pdf](http://www.ucalgary.ca/currents/files/currents/v1n1_wilcke.pdf).
- Williams- Siegfredsen, J.(2012). *Understanding the Danish Forest School Approach: Early Years Education in Practice* (Eds. P.Brunton&L.Thornton). New York: Routledge.
- Wilson, R. (1996). Starting early: Environmental education during the early childhood years. *ERIC Clearinghouse for Science Mathematics and Environmental Education*. 1-6.
- Wilson, R. (2008). *Nature and young children: Encouraging creative play and learning in natural environments*. New York: Routledge.
- Wilson, R. (2008). The Wonders of Nature: Honoring Children's Ways of Knowing. *Early Childhood News*. Retrieved from [http://www.earlychildhoodnews.com/earlychildhood/article\\_view.aspx?ArticleID=70](http://www.earlychildhoodnews.com/earlychildhood/article_view.aspx?ArticleID=70).
- Wilson, R. (2008) Why children play under the bushes. *Early Childhood News*. Excelligence Learning Corporation, retrieved from [http://www.earlychildhoodnews.com/earlychildhood/article\\_view.aspx?ArticleID=412](http://www.earlychildhoodnews.com/earlychildhood/article_view.aspx?ArticleID=412)

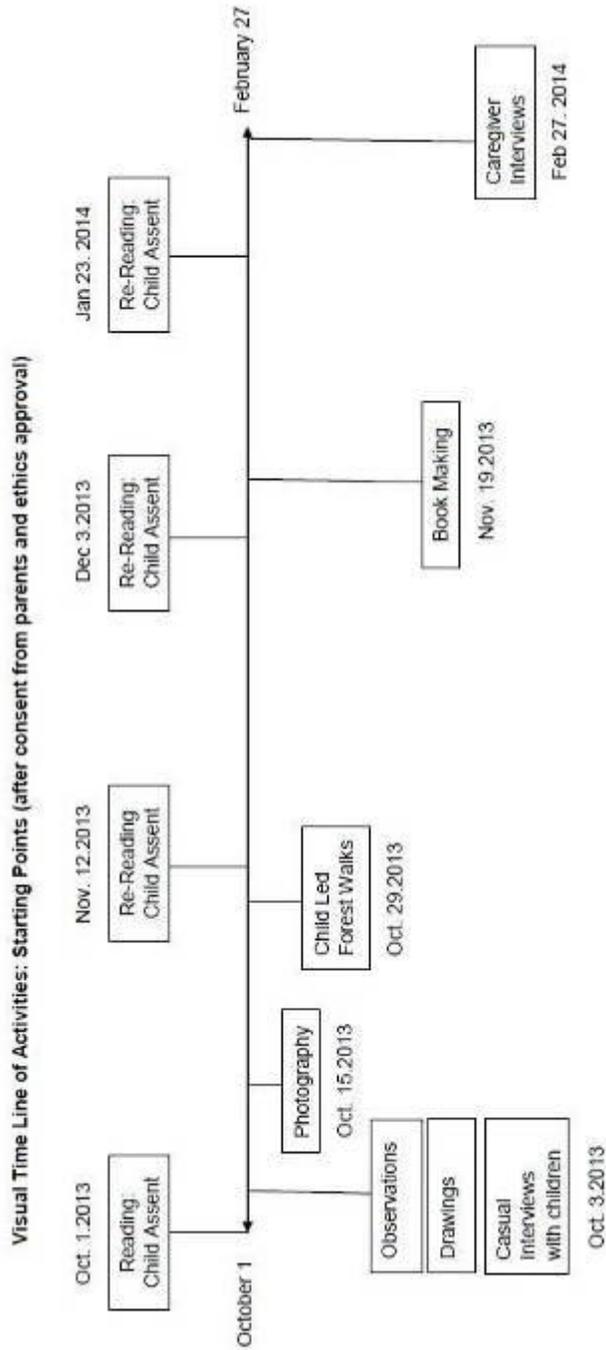
Zaradic, P., &Pergams, O. (2007). Videophilia: Implications for childhood development and conservation. *The Journal of Developmental Processes*, 2(1), 103- 147.

Zaradic, P., & Pergams, O. (2008). Reply to Jacobs and Manfredo: More support for a pervasive decline in nature-based recreation. *PNAS*, 27(105), retrieved March 26, 2013, from <http://www.redrockinstitute.org>.

Zeece , D., & Wells, R.(2007). My place in the world: Literature for play-based environmental education. *Early Childhood Education Journal*,(35), 285- 291.

# Appendix A.

## Visual Timeline of Research Activities



## Appendix B.

### List of Children's Experiences

Self-nurturing and Positive emotions	Joy
	Calmness
	Pride and feelings of self-autonomy
Social dynamics and empathy for other-than-human world	Strong bonds between peers
	Communication and problem solving
	Empathy for other-than-human world
Personal Challenge	Fear
	Dislike
	Physical Tiredness and Pain
Imagination	Forest as invitation for Imagination
	Influence of Popular Culture
Curiosity	Animals and Wildlife
	Natural Elements
	Death in Nature
Thrill and Risk Taking	Thrill Seeking Games
	Attempting Physically Challenging, Risky Behaviours
	Persistence
Physical manipulation: Human over nature hierarchy	