

Social-Emotional Benefits of Outdoor Play

By

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Bachelor of Education, University of Victoria, 2010

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Department of Curriculum and Instruction

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**Supervisory Committee**

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## **Abstract**

Today's children do not spend enough time outdoors, even though it is acknowledged that spending time outdoors is beneficial. Forest Kindergartens create an opportunity for children to play and learn in the natural outdoors, yet there is limited space in these outdoor classes, and it is only for one school year. The goal of this paper is to draw from current research and literature to examine the relationships that children develop with the outdoors, as well as the social and emotional benefits that nature provides children. I investigate how all early childhood educators can use time outdoors to support children's development through play and learning, including child-led learning, and opportunities for physical challenges. Finally, I recommend that nature playgrounds should be built on school grounds to provide all children with the positive experiences that nature can offer.

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## **Chapter One: Introduction**

### **Introduction**

As an early childhood educator, I have a great interest in helping children develop socially and emotionally. I hope to encourage children to understand that each of their thoughts and voices are important, and that they each have significant ideas that should be shared with each other. While some children are naturally confident in their thinking and sharing, others are shy or nervous about sharing their thoughts.

By exploring research on children's experiences in nature, I hope to delve into the social and emotional benefits of child-initiated learning in outdoor spaces (Maynard, Waters, & Clements, 2013b). Louv (2008) and Sobel (2008) both advocated for educators and adults to acknowledge the lack of outdoor play for contemporary children. Based on his research, Louv (2008) called for action, encouraging parents to get their children outdoors, spending less time indoors on technological devices. Sobel (2008) explored how to encourage relationships between children and nature through outdoor play and learning.

The questions that guide this project and the review of the literature include: i) What are the benefits of outdoor learning and play for young children?; and, ii) Can children's outdoor experiences enhance their social-emotional development? I am specifically interested in examining the literature that addresses the impact of outdoor learning and play on young children's social and emotional well-being. My intention is to share this information with early childhood educators, parents, and administrators who can provide their children with effective and beneficial outdoor learning and play time.

## **Rationale**

When I spend time with my students in nature, I notice that they are focused on new discoveries and interactions. There is a confidence that appears in many of the children outside of the classroom. For example, children who are most anxious about writing or sharing ideas in front of the class light up with excitement when turning over a rock to see who is living under it, or when calling friends over to help move a large branch. During our time outside, I attempt to release my own fears and concerns for children's safety as they climb the lower branches of a tree, and move across large fallen logs. While I observe these wonders that occur in nature, I have come to realize that these are meaningful experiences, and not a poor use of educational time.

As a new teacher, I have spent the majority of my teaching time focused on the mandated learning outcomes outlined in the British Columbia Ministry of Education curriculum documents. I have not spent a significant amount of time outdoors with my students, other than during Earth Week and at the end of the school year. When we do go outside, it is often on the manufactured school playground as a 'brain-break.' My intent is to actively change these past practices in this new school year. It has taken a change in curriculum documents, and this graduate program, for me to truly comprehend that the B.C. learning outcomes are only a piece of the learning process. I have been fortunate to work with some colleagues who have been passionate about placing children's social-emotional development in the forefront, as opposed to focusing solely on academic-based content. The shift in the redesigned curriculum, which focuses on a more personalized style of teaching and inquiry-based learning, has also impacted my thinking and practice. Rather than having a list of topics and outcomes to teach, there is space for personalized learning.

During my graduate work, I was introduced to the idea of nature playgrounds and outdoor learning spaces. I explored the underlying concepts and benefits of curious play, rather than the label of ‘risky’ play (Gurholt & Sanderud, 2016). I also learned about the term ‘Nature Deficit Disorder’, coined by Richard Louv (2008). This term is not intended to be a diagnosis or a label, but as a perspective to acknowledge that children in our society are not getting enough outside experiences in nature. I have observed this lack of outdoor exposure in my teaching career and in the broader culture of childhood and society. For example, access to electronics has increased, and so has the time children are spending on their devices, which ultimately leads to a decrease on time spent outside (Fjørtoft, 2001; Louv, 2008). It could be argued that due to the limited access children have to nature, that the responsibility to provide contact with nature is placed on educators.

From my perspective, I think teachers can provide opportunities for increased time outside in their practice, which is my intention this fall. Unfortunately, the school ground where I am currently teaching is lacking in trees, rocks, streams, and local plants and vegetation. The majority of our school ground is a flat grass space, part of that being a soccer field. Observing where and how the children play away from this flat space (unless involved in a game of soccer), piqued my interest in using natural loose parts on the school grounds, and the opportunities that it could present to our students. Our school’s Parent Advisory Council (P.A.C.) is currently interested in funding a nature playground, and I am on the committee in the hopes that we can bring elements of nature to our school grounds. And though my school does not have a lot to offer on school grounds, we are walking distance from a forest trail that is a portion of Goldstream Provincial Park.

## **Brief Introduction to Theories**

This capstone project is framed by place-based education (Sobel, 2008), and experiential learning (Dewey, 1929; Kolb, Kolb, Passarelli, & Sharma, 2014). Place-based education emphasizes children's development and learning in natural outdoor environments. An outdoor landscape, such as a forest, provides a space for children's natural curiosity to discover the world around them and experience learning through hands-on activities (Coe, 2016). The theory of place-based education (Sobel, 2008) is grounded in the following concepts: lived experiences; connections to community; and learning, growth, and development. This theory draws on the notion that children learn more about themselves when they learn about the community and environment that surrounds them (Sobel, 2008). When children are outdoors they can release the expectations of being a 'student' and allow themselves to inquire about and discover the world around them (Zamani, 2016). Place-based theory connects to the theoretical work of Dewey, which identified that children learn best from hands-on experiences.

Dewey (1929) believed that when children are stimulated by their own interests, capacities, and habits, that is where education begins. Kolb et al. (2014) describe experiential education as non-directive facilitation to assist learners through their experiences, where teaching styles and learning styles work together synergistically. The learner, using personal judgments and tools as a process of living, should lead education (Dewey, 1929; Kolb et al., 2014). Hands-on involvement is more meaningful for children, and requires the learner to be active and engaged. This is the type of learning that occurs in nature. Children experience the outdoors with their senses through hands-on activities and play. The experiences with nature allow children to learn, reflect, develop and create (Coe, 2016; Kolb et al., 2014). In the following chapter I

explain these theories in more detail, how they are supported in current literature, and how they connect to my project.

## **Significance**

International studies that have occurred in Australia, the Nordic countries, mainland European countries, and North America have revealed that children's engagement in the outdoors is decreasing (Louv, 2005; MacQuarrie, Nugent, & Warden 2015; Refshauge, Stigsdotter, Lamm, & Thornleifsdottir, 2015). Consequently, children need to be reintroduced to their outdoor environments (Louv, 2008). There is growing evidence that natural outdoor spaces benefit children's development and learning (Zamani, 2016), including their physical development (Coe, 2016; Fjørtoft, 2001; Maynard et al. 2013b), cognitive development (Refshauge et al. 2015; Zamani), social tendencies (Merewether, 2015), and their development of resiliency (Berger & Lahad, 2010). Children's mental health and emotional well-being directly impacts their ability to learn (Maller, 2009).

A number of researchers are calling for learning spaces that move beyond the traditional classroom (Coe, 2016; MacQuarrie et al., 2015; Maynard, Waters, & Clements, 2013a, Maynard et al., 2013b). When provided with the option of learning in a classroom or outside, Lucas and Dymont (2010) and Merewether (2015) found that children prefer to be outside and find outdoor learning more meaningful compared to learning indoors. Outdoor environments have the potential to provide the following features that children desire: natural landscape with trees and flowers; natural colours; spaces to sit on, under, and lean against; places that provide shade, shelter, and privacy; and materials that can be moved and changed (Malone & Tranter, 2003).

Outdoor play develops social skills as it relies on child-initiated learning (Maynard et al., 2013b). Additionally, nature is associated with a higher level of developmental play including

physical activity, imagination, and play that involve ‘risk’ management. To involve more of these types of play, Niehues, Bundy, Broom, Tranter, Ragen, & Engelen, (2013) suggested that educators reframe their thinking from ‘risk’ to ‘uncertainty’, ‘challenge’, and ‘opportunity.’ Approaching ‘risky’ play from a perspective of challenge provides children with opportunities to learn about and manage their personal play (Dowdell, Gray, & Malone, 2011; Sandseter, 2009). When educators remove challenging opportunities from children’s play they withhold potential advances in social, cultural, and physical development (Malone, 2007). Sandseter (2009) suggests that educators should provide children with opportunities to manage their play including the physical challenges and thrills.

### **Project Overview**

In this chapter I introduced my topic and my interest in this area of research from both a personal and professional perspective. I included a brief description of the theories that are framing this project, as well as the significance of outdoor play for children’s social and emotional development in the field of early childhood education. In Chapter Two, I elaborate on how the aforementioned theories inform rich outdoor play and learning opportunities for children. I focus on literature that examines the development of children’s relationships with nature, how these relationships can be supported by educators, and the impact natural playscapes have on children’s social-emotional development. Chapter Three addresses how the theory and literature discussed in Chapter Two can be applied to current outdoor education practices and the significance of these outdoor experiences for students, families, teachers, and administrators. For my project, I have created a photo book of physical spaces where outdoor learning and playing can occur and the affordances these places offer. I link these images to the reviewed literature on how relationships in these outdoors spaces can be supported, and how these spaces impact

children's social-emotional development. In Chapter Four, I provide a summary and share personal reflections on my project and my learning. I also describe recommendations for future early childhood practice and research.

## **Chapter Two: Literature Review**

As previously outlined in chapter one, place-based theory (Sobel, 2008) and experiential theory (Dewey, 1929; Kolb et al., 2014) provide a framework for this project. It is through these lenses that I explore play and outdoor learning for young children. I examine the relationships between children and nature; and the relationships between educators and nature. Finally, I address the relationship between social and emotional development and children's outdoor learning.

### **Place-based learning**

Sobel (2008) described place-based learning as weaving together learning, an appreciation for the natural outdoor environment, and individual development. It is the relationships between these elements where learning occurs (Maynard et al., 2013a; Sobel, 2008). Place-based education theory draws on the notion that children learn more about themselves when they learn about the environment that surrounds them and their community (Sobel, 2004; Sobel, 2008). Children are not to be taught about nature from within the removed classroom, but learn to care about nature in the outdoors where wonder and joy can be fostered, and where children can gain a deeper understanding of nature's features (Louv 2008; MacQuarrie et al., 2015; Sobel, 2004; Sobel, 2008). Then, as their knowledge of the world expands, so will their caring of the environment on a similarly large scale (Sobel, 2008). Through observations, Sobel (2008) found that children naturally interact with the outdoors and that there is a phenomenon that occurs for children when they are immersed in nature. Sobel (2008) noted that socioeconomic status and ethnicity do not change how children play in a safe place outdoors. This is significant to note as place-based education does not just benefit one group of children, but reaches across ethnicity and socioeconomic status.

Through his observations of children's learning and playing outdoors, Sobel (2008) identified seven design principles of outdoor education: adventure; fantasy and imagination; animal allies; maps and paths; special places; small worlds; and hunting and gathering. These design principles are not meant to be used separately, nor are they developmental. They are seven core principles that occur in the relationship between children and the outdoors (Sobel, 2008). Opportunities to learn and play in these design principles fosters the growth of the relationships between children and nature (Sobel, 2008; Swank & Shin, 2015). Awareness of these design principals provide a foundation for how educators can best support children's outdoor learning and playing, which will be discussed at greater length in chapter three.

### **Experiential Learning Theory**

Dewey (1929) believed that education begins when children are engaged and stimulated through social situations and interactions with others. Dewey (1929) suggested that the areas of learning should be led by the learners' personal interests, and by experiencing learning through hands-on interactions. In experiential learning, educators learn with the children through their relationship and shared experiences (Kolb et al., 2014). The development and learning takes place within particular social and cultural contexts, rather than just within the child. That is, children learn through the interactions they develop with their parents, teachers, peers, and surroundings (Maynard et al, 2013b; Rinaldi, 2006). Experiential learning views learning as a holistic process where the learner and the environment actively negotiate and create knowledge (Kolb et al., 2014). Dewey (1929) emphasized the importance of learners leading their education through their interests, personal judgements, and habits. He encouraged hands-on learning which requires the learner to be engaged and active, rather than a passive listener. Dewey posited that the school is part of a child's learning community; however, it is not the only place where

knowledge is held or nurtured (1929). The emphasis on children's learning is embedded within the relationship of the child and his or her multiple contexts, not just the individual child (Bronfenbrenner, 1979; Dewey, 1929; Kolb et al., 2014). Learning occurs when an individual takes in information, interprets the experience, and then acts upon it (Dewey, 1915; Kolb et al., 2014). The outdoor environment provides children with sensory experiences through hands-on, real world play that benefits children's learning (Dewey, 1915). The way that children experience the outdoors with their senses - through hands-on play and exploration - enables children to lead their own learning experiences (Coe, 2016; Dewey, 1929; Kolb et al., 2014).

### **Literature Review**

Children's early years are critical in their development. The early years are an important time to experience the world and develop relationships, including interacting with and connecting to nature (Coe, 2016; Louv, 2008; Sobel, 2008). However, not all contemporary children are experiencing the outdoors, as families spend more time indoors with numerous technological devices (Louv, 2008; Swank & Shin, 2015). Sobel (2008) recognized a phenomenon that occurs with children when they are learning outdoors; a relationship between the child and nature that foster each other. Part of this connection is due to all five senses experiencing the environment (Swank & Shin, 2015).

#### **Childrens' relationships with outdoor learning.**

Merewether (2015) conducted a two-month study in Perth, Australia where she worked with two classes of 25 children each. Merewether (2015) spent the first three days of the study building relationships with the children to develop rapport and discuss the project. The children were told about the study and were asked if they would like to help with the 'project.' Merewether (2015), with the support of the educators, selected a subset of eight 3- and 4-year-

old children. The eight children that were selected for the study were recognized by their educators as children who were able to fluently express their thoughts through speaking or drawings. Of the eight children, three spoke languages other than English in their homes. There were four boys, and four girls; five of the children were three years old, and three of the children were four years old. Merewether (2015) explored the children's responses to outdoor learning spaces and had the children participate as contributors to the research. Data were collected through conversations, photography by the children, tours by the children of the outdoor spaces, and the creations of books and drawings of outdoor spaces by the children. The children's outdoor tours, photographs, drawings, and conversations identified places that were "special" "important" or "interesting" to them, as requested by the researcher. Merewether collaborated with the children when compiling the documentation that included children's photographs, drawings, and snippets of conversations to ensure that the children agreed with the analysis of their work.

Merewether (2015) discovered that outdoor learning spaces are effective for children when they included the following four themes: spaces for socializing; pretending; observing; and, moving. Merewether (2015) noted that despite her consistent reminders to the children that she was curious about the outdoor spaces they valued, many of the photographs included photographs of the children as well. The children also often referred to their peers when revisiting the photographs when discussing the important places outdoors. There was a commonality with all eight children that there was a desire to be with the other children, which acknowledges that outdoor environments also support children's social development.

Merewether (2015) found that all eight children highlighted important outdoor spaces that promoted places for pretending by asking questions about what the children do in those

important places, and when answered with a matter-of-fact “we play,” inquiring what they played. If the children found that a place was “good” for pretend play, the children identified it was an important place.

The concept of “moving” was a key theme identified by the researcher. It was featured in all the encounters with the children through transcripts and conversations (e.g., (“I like running on the grass the best ‘cause I can run faster” Merewether, 2015, p. 104). This study revealed that educators have an important role in providing opportunities for children to be physically active, and that nature affords space for children to be physically active with multiple levels and natural features. This study provided insight on children’s perspectives on their outdoor spaces, and suggested that educators should value the insights provided by children to enhance the use of outdoor spaces.

MacQuarrie, Nugent, and Warden (2015) investigated how culture can influence nature-based learning, specifically focusing on the relationship between adults and children as children learn in natural spaces. The research began with a group discussion involving the researchers and seven adult participants from Australia, Denmark, or the United Kingdom who all spoke English, and who worked in varied professional roles related to learning in nature: some participants were early year educators, others worked in higher education, and others were charity workers. This diverse participant group enabled the researchers to acquire a range of perspectives. Following the group discussions, the seven participants visited, observed, and collected data at three international nature kindergartens over 16 months. The three research sites were specifically selected so that international comparisons could occur: the nature kindergarten in Scotland had 14 children enrolled; Finland had 15 children; and Denmark had 15 children. The child participants were between five and seven years old.

The comparisons of the three sites highlighted cultural differences even though they were all practicing education in nature-based settings. The cultural differences were also apparent when including the parents and care-givers opinions and participation. For example, involvement of grandparents in Denmark displayed an appreciation for culture and knowledge that elders can offer. MacQuarrie et al. (2015) also identified the subtle changes of the educators' roles when outdoors. In all three countries, there was an increase in child-initiated learning when outdoors. For example, children were encouraged to take ownership of decisions and responsibilities, such as dressing appropriately for weather, which required children to think critically. A strong link between children and nature was also noted in regards to revisiting an outdoor space. Children need to be exposed to the same outdoor space continuously, to experience the seasonal changes, for a relationship to develop. The unpredictability of the outdoors provided children the opportunity to develop their resilience, that is, if the wind knocked over part of a shelter from the day before, children maintained positive attitudes and calm composes. Finally, 'good practice' (p. 14) of children's outdoor learning experiences were identified as 'risk-rich' (p. 14) and researchers were interested in the role of the adult when children engaged in risk-taking, such as tree climbing, use of tools, and use of fire. Through observations in the three international nature kindergarten sites the data revealed that children are seen as competent and capable learners. Children's self-confidence was high, they had a positive attitude towards the 'risk-rich' activities, and they were more likely to explore opportunities and activities that included affordances related to 'risky' experiences when those challenges were supported by adults in that culture (MacQuarrie et al., 2015).

Sandseter (2009) explored why children seek out risky play, how children express their experiences of risky play, and what emotions can be interpreted by this kind of play. Sandseter

(2009) defined risky play to be exciting and thrilling modes of play which compromise a risk of physical injury (p. 93).

Sandseter (2009) took videos at two Norwegian preschools, one of which was an outdoor preschool. A total of 29 students, 21 girls and 8 boys were videotaped during outdoor play. The children provided their assent to be videotaped; however, they were told that they could let the researcher know at any time if they did not want to be videotaped. Video observations were done over nine days at each preschool. The researcher was familiar to the children, but did not participate, facilitate, or interfere with the outdoor play for the majority of the videotaping. Facial, body, and verbal expressions were all identified and interpreted by the researcher. A significant finding was the correlation between children experiencing exhilaration and their engagement in risky play. The researcher also noted that there was a necessary feeling of fear the children must encounter throughout their risky play to experience the emotional benefits of exhilaration (Sandseter, 2009). Implications for educators requires a shift in attitudes towards risky play. The results of the study illustrated that risky play should be acknowledged as an important part of play, and that children should be allowed to experience risky play outdoors at school settings. The study revealed that educators must also recognize that perceptions of risk vary greatly between children, and risky experiences should stem from internal motivation of the child who participates in such play (Sandseter, 2009).

### **Educators' relationships with outdoor learning.**

In a study completed by Maynard, Waters, and Clements (2013a), they explored educators' practice when scaffolding child-centered or child-initiated learning outdoors in

comparison with traditional classroom practice indoors. The researchers used their findings to inform the successful implementation of the Foundation Phase Framework.<sup>1</sup>

The study involved eight early childhood educators, each from a different school in South Wales, who worked with children aged 3 to 7 years old. The access to the outdoors differed for each school. One educator had access to only a tarmac yard, while other educators had school fields, and a few had access to wild areas or wetlands. Five of the eight schools provided children with wet weather gear. The study had two phases. Phase one ran for six months, and required participating educators to attend five seminars to support their developing understanding of child-initiated/child-centered learning and outdoor play. The child-initiated/child-centered learning was based on Reggio Emilia, where children are seen as active participants of their learning and socializing. The research drew on evidence from Australia, New Zealand, and across Europe to create this framework, which advocated for experiential learning, a play-based approach, and greater emphasis on outdoor learning. The educators also learned particular research methods and participated in five tasks to develop their research skills, specifically for observation notes, field notes, photographs, and reflective journals. In phase two, which ran for five months, the educators explored child-initiated/child-centered learning outdoors by adopting the Reggio-inspired approach to projects, such as learning about the outdoors by observing and wondering about “the planes in the sky and the clouds and weather and wildlife...” (Teacher D as quoted in Maynard et al., 2013a, p. 287). Educators participated in initial, interim, and final interviews which followed a semi-structured format. Educators were

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<sup>1</sup> The Foundation Phase Framework was developed by the Welsh Government for children aged 3 to 7 years. It advocates for play-based, experiential learning, and emphasizes the significance of learning outdoors. The framework suggests that social development, well-being, and cultural diversity be the focus of children’s learning. There are explicit demands that educators balance ‘child-initiated’ learning both indoors and outdoors. (2008)

also observed by the researchers through video recordings which took place both indoors and outdoors.

Initially, educators spoke fondly of outdoor learning, perceiving benefits from the diverse learning environment, and enthusiastic about children's joy when outdoors. Three educators commented on the shift in relationships with children when outdoors. These three also shared that they felt less pressured to focus on learning outcomes when outdoors. Four of the eight educators brought their children out once or twice a week; the other four educators brought their classes out twice a month. This study found that the educators focused on social skills and collaboration over 25% more outdoors compared to indoors. The researchers also observed that children were initiating and leading their learning 59% when outdoors, yet educators led 73% of the indoor learning. Five of the eight educators noted that they spent greater time observing and listening to the children when outdoors, and were then able to facilitate their learning, rather than instructing. Observational data reflected those feelings, recording that educators took on the 'instructor' role 13% of the time outdoors, but 64% of the time indoors. The educators commented on the difficulty of allowing the children to lead the learning (Maynard et al., 2013a). Four of the educators also commented on the difficulty of asking open-ended questions, and the researchers' observations saw that open questions were asked 58% of the time during outdoor learning, but only 16% of the time indoors. Maynard et al. (2013a) found that the educators were more likely to use child-initiated or child-centered learning approaches when outdoors. All eight educators identified documentation of learning also altered how they viewed their students' learning. Documentation changed how the educators assessed their students, which also influenced a change in planning for lessons, and a shift in the role of the teacher.

The researchers discovered that bringing children outdoors for learning and asking open-ended questions is not enough to call the outdoor experiences child-initiated or child-centered (Maynard et al., 2013a). This type of teaching requires great skill and ability from the educator as well as an open mind that the outdoor learning is *as* important as the instructional learning that commonly occurs. The educators' understandings of what the outdoor environment offers for students' learning were reported as being ambiguous and vague (Maynard, Wate2013a). Even when the researchers worked with educators to explore child-initiated learning outdoors, four of the teachers still struggled to see that 'real' work and learning occurred outdoors (Maynard et al. 2013a). While teachers enjoyed bringing the children outdoors, educators still valued the learning that occurred indoors as 'real work' (Maynard et al., 2013a).

Another study completed by Maynard, Waters, and Clements (2013b) observed the positive differences outdoor learning provides for children who had been identified as 'underachieving learners'. Each early childhood educator identified at least one boy and one girl who were experiencing difficulties and were identified as 'underachieving' in one of the following three developmental areas: emotional difficulties, social difficulties, or academic difficulties. Eight early-year teachers participated in this one-year study that took place in South Wales. In total, 48 children (24 boys and 24 girls) participated in the research. The children's parents were not asked for permission due to the educators' feelings that the child-initiated learning that was occurring through the study was within the framework of the Welsh Government's Foundation Phase, but the children were asked for their assent to be part of what was described to them as their teachers' "special project" (p. 218). The first phase of the research introduced the educators to learner-led practices and encouraged to practice child-initiated activities and experiential learning. The educators were also supported to use outdoor learning as

much as possible for each school space, which included free play in nature, building enclosures, investigations of local wildlife and weather, outdoor construction, and growing gardens. While all of these outdoor experiences were available to some of the educators, not all locations had access to all of these outdoor spaces. The early childhood educators were provided with several tools and measures to collect data on their students, and the educators decided that observations, inclusive of notes, photographs of children, and annotations were the most manageable. The educators collected the data, and the researchers visited each of the sites on three occasions, conducting semi-structured interviews with the educators. The case studies found that 28 of the 48 participating children were more engaged when participating in child-initiated learning outdoors. These children also displayed strength in the areas that had been identified as ‘weak’ when compared to the learning that occurred indoors. Of these 28 children (14 boys and 14 girls), nine had academic difficulties, nine had social delays, and ten had emotional difficulties. Three of the participating children displayed no positive difference in their participation of learning outdoors when compared to indoors, and 17 children were not specifically identified as having positive or negative differences by their educators. Educators identified through the study that their perception of ‘underachieving’ was shifting, and that they had differing views for underachieving when in the classroom compared to learning outdoors.

The most positive changes for the 28 children included the following observations by the educators: 5 of the 6 highly active children became calmer outdoors; the shy students displayed a range of increased confidence; and the learners who struggle with academics experienced greater success when learning outdoors. Teachers indicated that of these 28 children, there was a range of the positive differences outdoors, from significant to subtle. Initially the educators attributed the positive results of the children’s learning to the outdoors, where the children appeared more

relaxed, successful, and engaged. Findings from the study included that there was a third factor at work: the outdoor environment was allowing the educators' feelings and expectations of students to shift as they themselves had adjusted their perceptions and expectations of what learning looked like outdoors (Maynard et al, 2013b) Findings from this study included that learners' benefit from all of the relationships occurring outdoors, including the relationships between the educators, the learners, and the outdoors. The research concluded that outdoor learning spaces disrupt the traditional views of learning and create spaces where educators have an opportunity to view education and learning in a different place. In addition, the learners received an opportunity to reestablish themselves, in relation to their teacher, as confident and capable learners (Maynard et al., 2013b; Swank & Shin, 2015).

Maller (2009) completed a study in Melbourne, Australia that explored educators' and professionals' perspectives and impressions regarding the benefits of children's hands-on contact with nature. Specifically, this study questioned the social, emotional, and mental health benefits for children. The research was completed through face-to-face semi-structured interviews, and focused on the adults' perceptions and understandings of children's interactions with nature. Two specific questions were asked of participants: i) What are your perceptions about the different types of hands-on contact with nature children experience at school?; and ii) What are your perceptions of the benefits of these activities for children's mental, emotional and social health?

The research participants included principals, teachers, and professional representatives who worked with children aged one to 12 years of age. There were 23 educators from 12 schools who had involved students in hands-on nature activities and learning; and the seven representatives were from leading environmental education organizations who had working

relationships with schools. While fifteen representatives were approached to participate in this study, saturation of responses was obtained after seven interviews. All principals and teachers participated in the interviews.

Maller (2009) found that the interviewees perceived social, emotional, and mental health benefits from hands-on contact with nature. While the representatives of the environmental organizations all perceived benefits, only 3 acknowledged the importance of free-play for children's social, emotional, and mental well-being. The managers of the organizations favoured the structured, goal-oriented outdoor activities, such as growing a garden, or restoring local habitats. The educators' perspectives differed: ten out of 11 principals, and all 12 teachers perceived all contact with nature, free-play and/or structured, to be integrated and beneficial for children's social, emotional, and mental well-being. All 23 educators believed children experienced stress-relief from contact with nature including the quiet spaces, the plants, and the creatures. One representative participant identified the significance of outdoor activities due to its ability to reach a greater range of children's abilities, as well as the possibility to improve children's behaviours. Educators' noted that some children with low self-esteem displayed greater self-esteem when outdoors. Finally, the participants, representatives and educators, identified connections between childrens' physical activity and social, emotional, and mental health: when children overcame a physical challenge, they were perceived as gaining a sense of ownership, increased empowerment, and improved self-esteem.

This study found that children can benefit from nature, specifically for: stress relief, self-esteem, sensory engagement, connectedness to others, different learning styles reached, physical activity, and sense of empowerment. These findings support the value of outdoor activities for children.

## **Chapter Summary**

The movement towards learning outdoors, which started in the Scandinavian countries (Louv, 2005; MacQuarrie et al., 2015; Refshauge et al., 2015), is expanding internationally, especially in the field of early childhood education. Young children who are provided with opportunities to explore and play outdoors will develop relationships with nature and the outdoors, as well as benefit developmentally including their physical, cognitive, and social-emotional wellbeing. Learning and playing outdoors recognizes the child as a holistic learner who is taking charge of his or her own learning through outdoor engagement. The relationships between the child and nature, the educator and nature, and the child, educator, and nature all influence the opportunities of learning and play that may occur. Based on the research findings, chapter three will provide suggestions for educators to shift their views of the outdoors, and how they can further develop their relationship with nature to foster children's outdoor learning.

## **Chapter Three: Connections to Practice**

### **Introduction**

This chapter connects the information from the literature review on outdoor play and learning to current contexts for teachers, parents, administrators, and school districts. In this chapter, I address how educators can develop and expand on their students' outdoor learning, and the benefits of outdoor play and learning for children's social and emotional development. The review of the literature identified two themes: i) the significance of relationships between children and nature, educators and children, and children and their educators in nature; and, ii) the relevance of outdoor spaces and places as sites of learning. Based on these themes, I have created a photo information book (Appendix A) for early childhood educators, parents, administrators, and board office members. The photo book includes a range of photos and text that outlines students' outdoor play and learning, and shares how accessible outdoor learning can be for primary educators. My expectation is that this book will also inspire and inform educators, parents, and administrators on the potential of outdoor learning for young children. The book also includes information on the benefits of creating nature playgrounds and learning spaces in public spaces, including the benefits of why these spaces should be accessible to all children.

### **Why spend time outdoors?**

In the beginning of the photo book, I provide highlights of the findings in the literature that addressed why outdoor learning and play is important. The review of literature revealed significant evidence (e.g., Merewether, 2015; Maynard et al., 2013a; Maller, 2009) as to why educators should engage children in outdoor learning to support their social and emotional development. For example, natural outdoor spaces encourage social development through cooperative play and learning, which includes listening to others' views, working on a common

goal or purpose, and children advocating for their own needs and feelings (Dowdell, Gray, & Malone, 2011; Lucas & Dymont, 2010; Mainella, Agate, & Clark, 2011; Malone & Tranter, 2003). In other words, nature provides opportunities for group centered, rather than individualized learning. The increase in cooperative learning leads to children that are more courteous to each other, who are developing their skills to work together, share their ideas, and collaborate with others. Nature play also supports children's engagement in role play through their use of equipment and materials that are open-ended (Merewether, 2015). If children are provided with loose parts, such as sticks, rocks, and wooden blocks, they will use their imagination to turn these items into objects needed for their play. Examples of conversations that occur when children are using loose parts include explaining to others what they will be using the object for, whether they need more, how they are using it, and if they require help in moving larger loose parts. This understanding is highlighted in my photo book where I include an example of two children playing with twigs, pinecones, and sticks to create a fire place, a house, and a baby in a crib.

The decreased amount of outdoor play for contemporary children has been identified as a reason that children struggle to manage their stress (Louv, 2005). The decrease of play in nature has also been identified as a factor in the increase in emotional disorders, including anxiety and depression (Mainella, Agate, & Clark, 2011). Children's behaviours, emotions, and feelings can be influenced by the outdoors, so the spaces that are used for outdoor play should be welcoming and accessible for all children. Nature has therapeutic and positive effects on children as the wind, earth, trees, plants, and creatures empower children as they learn and play outside (Berger & Lahad, 2010; Czalczyńska- Podolska, 2014). Therefore, prolonged time playing and learning outdoors leads to increased personal connections with nature (Sobel, 2004; Sobel 2008).

## **Establish Outdoor Places and Spaces**

Literature on outdoor learning has recommended that educators bring their classes outside more often, and acknowledged that educators need to become more comfortable with nature themselves (e.g., McClintic & Petty, 2015; Maynard et al., 2013a; Maynard et al., 2013b). Educators may also need to shift their views on the outdoors in order to provide outdoor learning opportunities to their children. The outdoors offer experiences, such as interacting with insects, or getting wet or muddy, which should not deter teachers from providing their students with opportunities to develop meaningful relationships with the outdoors. That is why it is important that educators develop their own comfort and relationships with the outdoors (Maynard et al., 2013a). If children are expected to develop a relationship with the outdoors, that relationship should be modeled by the educator. While schools should be offering children time outdoors, Louv (2008) recommended that parents also encourage their children to be outdoors more often. The outdoors is where children learn about the environment that surrounds them, and where relationships with the environment can develop (Coe, 2016; Louv, 2008; MacQuarrie, et al., 2015; Sobel, 2004; Sobel, 2008). With more families spending time indoors using technological devices, families have choices to make and should attempt to experience the outdoors as often as possible (Louv, 2008; Sobel, 2008; Swank & Shin, 2015). Educators should also value the insights that children provide when they are outdoors, so that outdoor spaces are used to their fullest potential (Merewether, 2015). Merewether (2015) discovered four themes in relation to places that children valued: spaces for socializing, pretending, observing, and moving. When finding an outdoor space educators should keep these four themes in mind. I have highlighted these four themes throughout my photo book.

As mentioned in the literature review, a study conducted by Merewether (2015) revealed that children noted that their educators had a different attitude when learning occurred outdoors; an attitude which children found to be more positive and relaxed. Maynard et al. (2013b) and Merewether (2015) found that moving the learning outdoors adjusts the attitudes of the educators, which then adjusts the learning space. For example, when indoors, there are certain rules that need to be followed (e.g., walking feet; inside voices) However, when children are engaged in learning outdoors, there are a different set of guidelines which may provide children with feelings of freedom, and spaces for success that are not available to them in the classroom (e.g., moving at different speeds, ability to use a bigger voice, standing, crouching, or sitting to listen and learn) (Maynard et al., 2013b). While this shift of guidelines can be positive, the literature also acknowledged (e.g., Maynard et al., 2013b) that educators need to view children's outdoor engagement as educational.

Outdoor spaces should be revisited often throughout the year to provide children with the opportunity to develop their appreciation of the environment (MacQuarrie et al., 2015; Sobel, 2008). Noticing the wildlife, growth of new plants, seasonal changes, and fallen branches all support the relationships between children and the outdoors, and children grow up caring about nature more if they spent many hours outdoor as children (Sobel, 2008). Children will also develop resilience as they see that nature changes with weather, such as a strong wind knocking down large branches, or pushing over a structure they have built (MacQuarrie et al., 2015). Developing resilience strengthens children emotionally as it assists in children staying calm, composed, and have a positive attitude, such as planning to rebuild, or to create something else (MacQuarrie et al., 2015).

## **Supporting Children's Outdoor Play and Learning**

As mentioned in the literature review, many educators found that the outdoors provided a space for experiential learning to occur, where students were engaged in child-initiated, collaborative, and experiential-based learning (Dewey, 1929; Kolb et al., 2014; Maynard et al., 2013a; Maynard et al., 2013b). Child-led learning does not mean that educators remove themselves from children's experiences and just supervise the children outdoors. As mentioned in the literature, (e.g., MacQuarrie et al., 2015; McClintic & Petty, 2015; Maynard et al., 2013a) there should be interactions between the educator and the learners, such as scaffolding the children's thinking and wonders, asking open-ended questions, and learning with the children. These interactions facilitate the learning that occurs outdoors (Maynard et al., 2013a). The educator should become more familiar with the types of open-ended questions that should be asked, and become comfortable with the children leading the learning (Maynard et al., 2013b). This perspective is supported by the theory of experiential learning, which states that children learn through the interactions they develop with their parents, teachers, peers, and surroundings (Maynard et al, 2013b; Rinaldi, 2006). Experiential learning still requires the educator to participate in the learning, through facilitation, and guide the children through their experiences.

As discussed in the literature review, an international study identified the value of including family members, such as parents and grandparents in children's outdoor experiences (MacQuarrie et al, 2015). Family members can support outdoor learning by volunteering with the class to share their knowledge, provide new experiences, and bring cultural knowledge (MacQuarrie et al., 2015). Valuing the intergenerational experiences and knowledge of students' family members supports children's relationships with nature.

Outdoor play and learning is perceived to benefit the social, emotional, and mental health of children (Maller, 2009). Outdoor learning requires educators to value outdoor learning as much as learning that occurs indoors, and to be open to the different types of learning that occurs outdoors (Maynard et al., 2013a; Maynard, et al., 2013b McClintic & Petty, 2015). Educators have a significant role to play when supporting children's outdoor learning and experiences, and yet teachers' understandings of what the outdoor environment offers for students' learning are reported as being ambiguous and vague (Maynard, et al., 2013a; McClintic & Petty, 2015; Sobel, 2008). More often than not, educators relate outdoor education with subjects such as changing of seasons and weather, or physical movement, such as running. While these mentioned areas of learning are important for children, there is more learning that occurs outdoors. If educators shift their pedagogy and reframe their understanding of learning to include outdoor learning, it enables children's differing strengths to be highlighted. Due to the fact that all children benefit from play and learning in outdoor spaces, schools should provide these spaces, and ensure they are accessible to all children. Creating a nature playground on school grounds allows all children time in nature without concerns for protocol of leaving school property, such as having the right number of adults available; or concerns for safety, such as a bear sighting at the local stream. In the same way that children and families use school playgrounds before and after school, during weekends, holidays, and summer break, a nature playground provides opportunities in a public space for outdoor play, which connects to recommendations that children be outdoors more for the emotional and mental health benefits (Louv, 2008; Maller, 2009).

### **Encouraging Outdoor Challenges and Opportunities**

In regards to physical activity, educators are required to provide children with opportunities for physical movement as mandated in the B.C. Physical and Health Education

curriculum document (British Columbia Ministry of Education, 2016). Merewether (2015) suggested that it is important to engage students in physical learning beyond the school playground and gymnasium. Nature affords multiple levels and features where children can be physically active. As mentioned in the literature, when children overcome a physical challenge their self-esteem improves, and they gain a sense of ownership (Maller, 2009). When outdoors, educators have an opportunity to view children as capable and competent learners. Shifting a view of 'risky' play to 'opportunities' and 'challenges' such as tree climbing and using tools enable children to explore and learn, and develop their social and emotional well-being (MacQuarrie et al., 2015; Sandseter, 2009). Children's self-confidence improves with success of these 'challenges;' as a result, children are more likely to attempt other challenging activities and experiences. In my photo book, I share an example which displays a child's excitement and fear as she climbs up a tall tree root and debates how she will move down, walking down the side she got up, or jumping. She decides to jump and then moves on to other games on the grass with her friends. Due to that experience, her confidence increased, which was displayed the following weeks by her jumping off the same root multiple times, laughing and commenting that it used to be difficult for her, but she can do it now. She also encourages other friends who have not jumped, to try it too.

### **Summary**

In this section I connected the literature on outdoor play and learning to educators' roles in children's school worlds, particularly in relation to creating outdoors experiences for, and with, children that supports their outdoor play and learning. This chapter, and the book I have created, offer examples of opportunities where children can connect with and learn in nature. I have included suggestions for educators that focus on becoming more comfortable with child-led

learning, the outdoors, and the different opportunities that outdoor learning provide children. I have also discussed the importance of shifting one's pedagogy to ensure that children are authentically experiencing outdoor learning. I have also discussed the benefits of creating a nature playground on school property that is accessible to the public. This chapter also included some highlights of the photo book I have created to share how accessible outdoor learning can be for primary educators and parents.

## **Chapter Four: Reflections and Conclusions**

In this final chapter, I return to my guiding questions from Chapter One of this project: i) What are the benefits of outdoor learning and play for young children?; and, ii) Can children's outdoor experiences enhance their social-emotional development? In the following sections of this chapter, I present personal reflections in response to the research on these questions, and outline suggestions for educators. I conclude with some limitations educators may encounter and state recommendations for further research.

### **Reflections and Recommendations**

The literature supporting the importance of outdoor experiences for young children is far-reaching, and continuing to grow (e.g., Louv, 2005; Maynard et al., 2013a; Maynard et al., 2013b; Merewether, 2015; MacQuarrie et al., 2015; Sobel, 2008). Through my review of the research, I have learned that outdoor play and learning have the potential to positively influence children's social development, improve children's emotional and mental health, and provide experiences for children to develop relationships with nature which could lead to increased care of the environment (e.g., MacQuarrie et al., 2015; Maller, 2009; Sobel, 2008). While I have always believed that outdoor experiences were beneficial to children, as a result of my exploration of the literature on outdoor learning, I have come to recognize the social and emotional benefits that children can receive from connecting to and experiencing the outdoors. I have also come to understand the role that teachers can play in assisting in the development of the relationship between young children and their natural surroundings. For outdoor learning to occur, educators may need to spend time learning about the surrounding community for potential spaces and places, if there are not natural spaces on school grounds.

For example, I taught at my current school for two years before venturing to Goldstream Provincial Park, which is within walking distance for the children. I knew it was nearby, but was unsure about the children managing the walk. Once I took the time to walk there myself I was able to see that the distance and terrain would be possible for the children to walk. We have since walked down to the riverside over ten times in five school months, and have benefitted from seeing salmon collected for the salmon hatchery, and have our questions answered by salmon hatchery volunteers. The children have chosen their own special place outdoors where they begin and end the outdoor sessions observing their space individually. The children also interact with local wildlife (e.g., salamanders, salmon, slugs, insects), create bridges and balance beams out of large logs, and notice the growth changing seasonally. Being able to observe the children outdoors enables me to see them from a different perspective. The struggles that some children have with academic learning and/or behaviour shift to the background, and instead, children's happiness, curiosity, and active engagement with their peers rises to the foreground. I have personally felt these shifts, which supports the findings of the research conducted by Maynard et al. (2013b) and Merewether (2015).

To use outdoor spaces to their fullest potential, educators should value the insights that children provide (Merewether, 2015). For example, children may take an interest in a space that the educator did not recognize as interesting or meaningful for students. This is something I have also experienced with my students, as my students have found outdoor spaces that I did not initially deem as significant. One of the spaces they found was not as easy to access; however, this space offered greater opportunities for outdoor learning as there were more birds, different plants, various fungi, and many large branches and fallen logs to climb over. It was also a steep access point to enter and exit, which all of the children cleared despite my initial concerns.

During that experience, I had to trust the children, and release my concerns about the opportunities the students were taking in this outdoor space. The feelings I have had match the findings in Sandseter's (2009) research in which children experienced feelings of mastery once they are provided opportunities to have sought out and experienced fearful yet exhilarating play. I recommend that educators be aware of how often they say "be careful" when outdoors, and make an effort to change their language from a warning (i.e., "Watch out!" "Be careful"), to a question, a wonder, or even an acknowledgement of what the child is doing (i.e., "I see you want to climb on that high root. What is your plan?") Educators also need to acknowledge the value of children's risk-taking as part of natural play (Sandseter, 2009). This will require a pedagogical shift for educators in relation to challenging and opportunistic play.

Prior to undertaking this project, I was not spending significant learning time outdoors with the children in my class even though I valued outdoor learning. By not spending time in nature, aside from an occasional extra recess and the annual events surrounding Earth Week (e.g., lunch outside, 'outdoor day,' a walk to Goldstream Provincial Park with the school), I was inadvertently communicating to my students that indoor learning is more important than outdoor learning. The children in my class now know that outdoor learning is a meaningful time for learning and exploration, and for opportunities and conversations. They know that the time we spend outdoors playing and learning is just as important as the time we spend indoors.

### **Limitations and Future Directions**

Educators and caregivers may hold their own set of challenges when introducing outdoor learning to their children. For example, an emerging theme in the research by MacQuarrie et al. (2015) was that parents may have differing values than educators. This could stem from preconceptions of whether genuine learning occurs outdoors, to concerns of the 'risky' play

(Sandseter, 2009). Educators need to recognize the difference between fear and exhilaration, and should be familiar with the benefits of ‘risky’ play (Sandseter, 2009). Being proactive and sharing this information with parents prior to the children’s outdoor experiences could enable parents to have a clearer understanding of the benefits of outdoor engagement for children. Safety and inclusion should also be considered by educators which could greatly influence how far a class goes off school grounds, and what type of outdoor space would be best. Research in this area of outdoor play and learning is imperative as safety is often the first concern of educators and parents. Therefore, additional research on children’s experiences in challenging outdoor play would be significantly beneficial to advocates of outdoor learning.

It is also imperative for educators to recognize that each outdoor location provides its own set of affordances for the children to discover and learn (Swank & Shin, 2015). Factors that affect the relationships children develop with nature are the outdoor space available to children (Swank & Shin, 2015), and the amount of times the children get to experience the same space (MacQuarrie et al., 2015). These factors are why educators must become familiar with the outdoor environment surrounding their school. Further research exploring the amount of time children spend outdoors with their teacher, and the pedagogy behind the educators’ choice could provide meaningful insight into how much time is spent outdoors, and how valued outdoor learning is.

Schools should now recognize that children are spending less time outdoors (Louv, 2005; Maller, 2009; Sobel, 2004), and the social-emotional benefits that nature can provide children (e.g., Maller, 2009; Maynard et al., 2013a; Maynard et al., 2013b). Moving forward with this knowledge, school districts should also be shifting their development of playgrounds to be able to provide more equal opportunities to all students. By developing natural surroundings on

school property, I believe that more children will get to experience the benefits of nature. I believe a nature playground with natural space including trees, pathways, large boulders, logs, tree stumps, and loose parts (i.e., rocks, pinecones, logs, bark, etc.) should be available for all children. Limitations such as the teacher's or a classmate's mobility could affect taking a class off school property, so all school grounds should have a nature playground on site. All children in the surrounding areas of a nature playground benefit, as the school grounds are a public space, so pre-school aged children and home-schooled children would also benefit from these spaces.

Considering children will be the ones playing in the nature playground, I recommend that children should have a voice to advocate for the affordances they would like to see built. Children's insights should be valued when planning to use the outdoor spaces to their greatest potential. School districts and administrators could include children's voice by asking children for ideas of what they would like to see in an outdoor space such as nature playground. Research that observes children in outdoor settings would also provide significant information for adults planning an outdoor space. While not all of the children's idea could be used, children may create spaces that adults would not. This practice would also provide children opportunity to reflect on what they appreciate about nature, and how they play. Designs could incorporate the children's values to provide a variety of nature playgrounds within a city.

### **Dissemination of Knowledge**

I look forward to sharing the knowledge that I have acquired through this project. For example, I will share this capstone project with my colleagues, and with parents of my students. The photo book I have created is something that can be used by educators and parents to further their understanding of the benefits of outdoor learning and play. The book may also provoke conversations between colleagues, or with parents, for further understanding of the benefits of

outdoor play and learning. I also plan to present my project to my school district with the intention of seeking support for building of nature playgrounds on school property. School districts should be adjusting their building policies to include nature playgrounds so that when schools are ready to build there is already a district plan. I will consider presenting this information in local workshops as well, to promote that all educators can bring their classes outside for outdoor learning. My intention is that from these conversations and shared knowledge, educators take it upon themselves to bring children outdoors during class time. It should not just be the classes identified as 'Nature Kindergarten' that receive the benefits that nature offer. All children deserve the time to play and learn outdoors in an unstructured environment every day.

## **Conclusion**

All relationships in children's lives influence who they are. The study of the literature I have completed allowed me to discover the benefits that outdoor learning can provide for children's social and emotional growth. Recess and lunch play time are not enough. The research has provided me with examples of educators' views and fears of outdoor learning, and how teachers can develop more outdoor learning for their students.

Through working on this project, I have developed a passion about children's rights to be outside as part of their learning. I have discovered the importance of going outside with the children, to listen to their questions and wonders as they play, and to allow times of physical challenges. Additionally, I have discovered the significance of the educator's influence on the children's relationship with nature. Because our values, beliefs, and actions impact the relationships children can develop with the outdoors, I challenge early childhood educators to provide children more access to a natural environment on a regular basis.

I encourage early childhood educators to get outside with the students and challenge themselves to enjoy the wet, the dirt, and the physical opportunities that children will naturally experience. Educators can share their outdoor experiences with each other, and continue to review current studies. It is my intention that they capstone project inspires early childhood educators to develop the pedagogy to include outdoor learning, and to help districts to develop policy around building nature playgrounds on school grounds. While Nature Kindergarten is present in our district, currently at two school locations, we need to provide more for *all* of the children in our school district. More needs to be done to ensure that children are experiencing the outdoors regularly, through outdoor play and learning. Children deserve outdoor spaces that provoke their thinking and invite inquiry.

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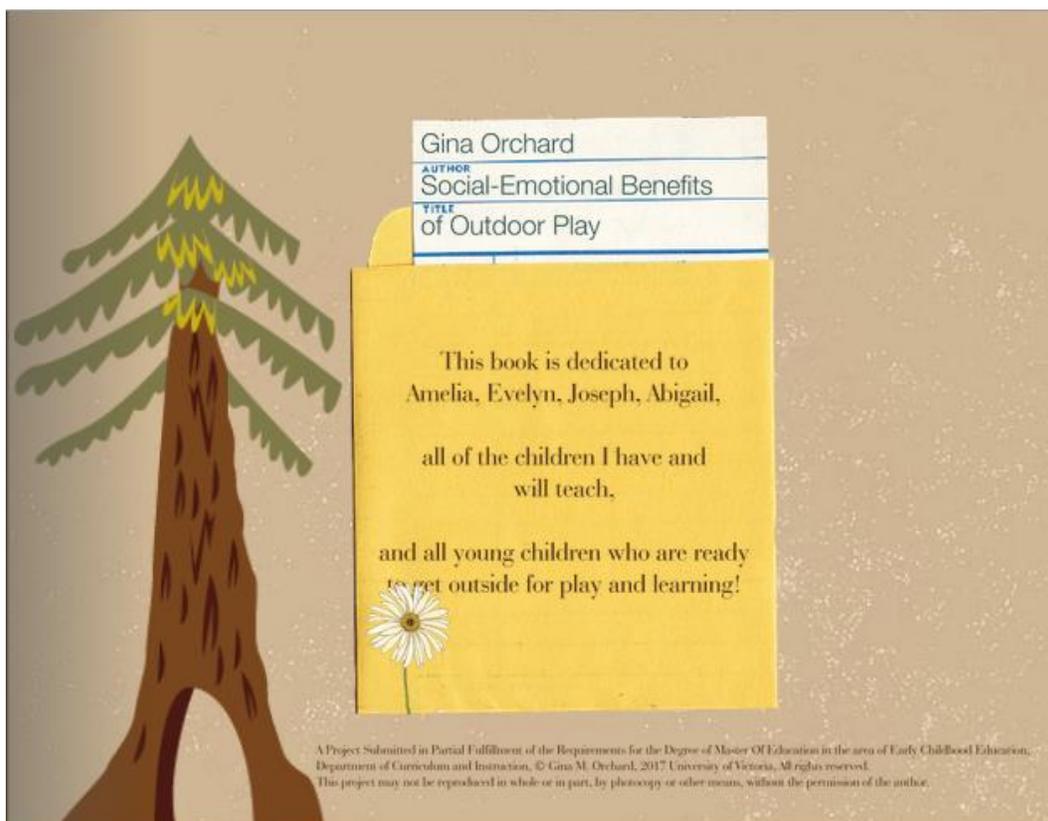
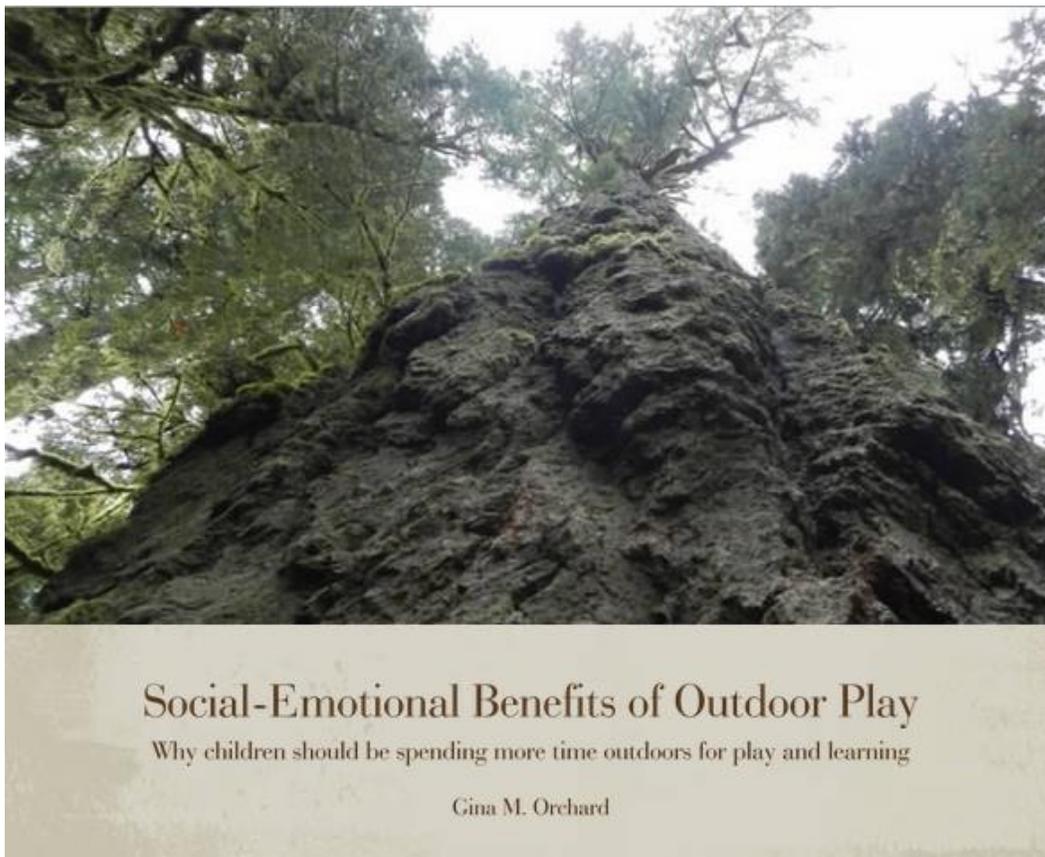
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## Appendix



## Why spend time outdoors?

Nature provides opportunities for group learning. The increase in cooperative learning leads to children that are more courteous to each other, who are developing their skills to work together, who learn to share their ideas, and who collaborate with others.



## Social and Emotional Benefits of Outdoor Play

Hands-on contact with nature provide social, emotional, and mental health benefits for children.

Educators perceived that children experienced stress-relief from contact with nature including the quiet spaces, the plants, and the creatures.

The outdoors reached a greater range of childrens' abilities.

When outdoors, educators perceived improvement in childrens' behaviours.

Some children with low self-esteem displayed greater self-esteem when outdoors.

When children overcame a physical challenge, they were perceived as gaining a sense of ownership, increased empowerment, and improved self-esteem.

(Maller, 2009)

### Supporting the Developing Relationships between Children and Nature



**Learning and playing outdoors is time well spent! Outdoor learning IS real learning.**

Bring children to the same outdoor spaces to help them develop a strong relationship with the outdoors.





Children should have their own special space. It serves as a quiet space to observe nature, to notice seasonal differences, and a relaxing space. Children should visit that space at the beginning and end of the outdoor time.



### Rain or shine, head outside!



Children socialize around use these trees which they use as a 'bed' for a game of house.



Merewether (2015) found that children were seeking outdoor spaces that provided one or more of these four features: spaces for socializing, spaces for moving, spaces for pretending, and spaces for observing.



Children sitting together to observe the nature around them.



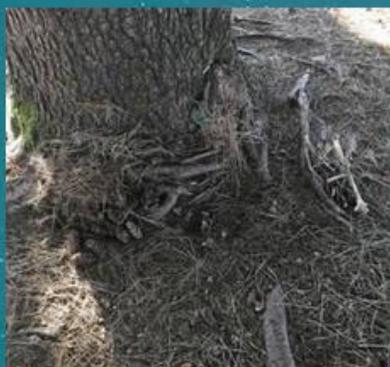


Nature can be moved like the sticks above, or grown in a specific shape like the tunnel to the right.






## Using loose parts for outdoor play and learning



Top three photos: A young girl stokes the fireplace she has created with her friends. She adds wood to the fire to keep the house warm. "I'm making a camp fire. I am putting a log on the fire. We are making it together, me and her."  
(15 min later) "We have moved the fire. It is closer to the baby to be warm so we put it here".

Left photo: The fire place, the wood pile, and the baby's room where the baby is sleeping.

- ~socializing with other children to make the fire and take care of the baby
- ~understanding of the use of fire, and being closer for heat
- ~emotional development by caring for a 'baby'
- ~using loose parts to engage with the outdoors: to make fire; build the outline of her house; make a baby's crib



### "X marks the spot"

One child created this X out of twigs. This got other children quite excited and a game of pirates began. Rules were created on the spot through collaboration and negotiations.



Two children work together to create a 'log bridge'.



Two girls work together to create a "garden" space that includes:

- "trees [branches they have re-planted],
- little hand to grab something [branch that looks like it has three fingers],
- x-marks-the-spot [2 twigs under their 'tree'],
- a little plant [a part of a bush that had fallen off],
- a feather [a leaf from a bush],
- and a picture [a large piece of bark they placed in a bush]."

A collage of images related to a school garden. It features a small seedling in a pot with a 'Pepito' label, a yellow squash on a vine, a hand holding a yellow squash, and a yellow squash on the ground. The background is a close-up of soil and mulch.

**A Garden**

Patience

Excitement

Curiosity

Growing a vegetable or flower garden at the school is a wonderful way to provide opportunities for outdoor learning. Children can decide what to grow, and then learn about what grows best in that area, when to plant different seeds, how much sunlight and watering different plants and vegetables require, and more! Children are proud of what they create.

A collage of images showing sunflowers at various stages of growth and a child in a garden. It includes a close-up of sunflower leaves, a young sunflower bud, a fully bloomed sunflower, a sunflower stem, and a child reaching for a yellow squash in a garden bed. The background is a close-up of soil and mulch.

Taking care of a class garden is another way to expose children to the same space multiple times, facilitating the relationship between children and nature.

*Beach space*

Nature is not just forests. Find a space accessible to your students, such as a beach.

Children can observe the life in tide pools, compare sizes of crab claws, dig trenches, and more!

Children wonder about the local creatures around them. Being outdoors and seeing them in person assist in developing a relationship with the living creatures around us.

Clockwise starting top left: a bald eagle rests in a tree top; a squirrel sits on a branch to open a nut; two earthworms mating; a salamander found under an upturned log; a child points to a slug climbing a thin tree trunk

## Learning about *Metamorphosis*



Frog eggs were spotted in a pond. Some eggs were carefully collected and brought back to the classroom. A family provided us with a tank so that we could observe how tadpoles grow into frogs. The frogs and large tadpoles were released back to the same location several weeks later.



Children first noticed the different types of leaves on trees. They were curious about the differences in stem growth off the branches. This led into an inquiry of local trees.

## Child-led INQUIRY

### As "100 Day" approaches:

child: I wonder how many pine cones there are at school.  
 teacher: I wonder!  
 child: I wonder if there are 100. Or MORE!  
 teacher: I wonder how we could find out..  
 child: let's collect them and make 10 groups of 10. That makes 100!






"I jumped down one time. It scared me a little... Stop! You're almost making me fall!... I don't know if I will jump this time."  
(5 min later)

"I wanted to jump so I jumped from the side and it WAS high but not too high. And I landed on my feet!"

**Climbing up a tree root.**  
Three friends stand together on the base of the tree. These children do not often choose to play together inside. Outdoors there are different social 'rules', and children are more apt to play with other children.



**OUTDOOR PLAY SHOULD BE FULL OF Opportunities and Challenges**






There was a necessary feeling of fear the children must encounter throughout their risky play to experience the emotional benefits of exhilaration (Sandseter, 2009).

Educators must recognize that perceptions of risk vary greatly between children, and risky experiences should stem from internal motivation of the child who participates in such play (Sandseter, 2009).

# Creating Nature Playgrounds



Building a nature playground on school grounds ensures that many children will receive the opportunities that outdoor play offer. When nature playgrounds are built on school grounds, all children are able to experience the benefits of play in nature. It allows all early childhood educators to provide children more access to a natural environment on a regular basis.



stumps and logs that collect rain water



opportunities for balancing, climbing, and socializing



outdoor benches for socializing and observing



boulders and logs for opportunities and challenges



Climbing across, hiding behind, and more!

I believe a nature playground with natural space which includes trees, pathways, large boulders, logs, tree stumps, and loose parts (i.e., rocks, pinecones, logs, bark, etc.) should be available for all children. Limitations such as the teacher's or a classmate's mobility could affect taking a class off school property, so all school grounds should have a nature playground on site.

Schools building nature playgrounds could ask children for their perspectives and ideas. Children should have a voice to advocate for the affordances of the playground. Children may create spaces that adults would not. This practice would also provide children opportunity to reflect on what they appreciate about nature.





Give the pupils something to *do*,  
not something to *learn*;  
and the doing is of such a  
nature as to demand thinking;  
learning naturally results.

~John Dewey

"If we want children to  
flourish, to become truly  
empowered, then let us allow  
them to *love* the earth  
before we ask them to save it"

~David Sobel

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All photographs taken by Gina M. Orchard.



*get outside!*

Today's children do not spend enough time outdoors, even though it is acknowledged that spending time outdoors can be beneficial. Based on current research and literature, this photo book provides examples of outdoor learning opportunities for young children: the relationships that children develop with the outdoors, the social and emotional benefits that nature provides children, child-led learning, opportunities and challenges of physical play, and the ways early childhood educators can use time outdoors to support children's development through play and learning. Nature playgrounds should be built on school grounds to provide all children with the positive experiences that nature can offer.



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