Young children’s preferences of the elements available to them in their outdoor play space

by

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A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF ARTS

in

THE FACULTY OF GRADUATE AND POSTDOCTORAL STUDIES

(Early Childhood Education)

THE UNIVERSITY OF BRITISH COLUMBIA

(Vancouver)

April 2018

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Abstract

Outdoor play spaces within child care centers are important because of the many opportunities they provide for children’s over all development. Outdoor play has many benefits for different areas of children’s development and is an important part of quality early childhood programs. The spaces that are provided for children impact their learning experiences. Previous research identifies the importance of outdoor play on children’s development. Much of the research done on outdoor play includes adult’s perspectives and observations. Since children are the main users of these outdoor play spaces in early years settings it is essential that their perspectives are taken into consideration. The purpose of this study was to explore children’s perspectives of the elements of the outdoor play space available to them. A child care center in Vancouver BC with a mixed zone outdoor play space was selected for this study. Four children ages 36 months to 48 months enrolled full time at this center participated in the study. The qualitative case study methodology was used to identify what elements of the outdoor play space were important to the children. Data was collected in the form of photographs taken by the children of the outdoor play space, conversational interviews using the photographs as prompts and the researchers field notes. Thematic analysis was used to discover themes emerging from the data of the elements children identified to be important in the outdoor play space. The findings revealed 4 different elements within the outdoor play space that were important to the children, the natural environment, built environment, play materials and missing features/elements. This study gave the children the opportunity to share their ideas and opinions concerning the elements available to them in their outdoor play space at the child care center. The data gathering methods supported children’s rights by giving them an active voice to share
information and express their opinions. The children in this study were capable of identifying features/elements within the play space that were important to them.
Lay Summary

This qualitative case study, conducted in a large western Canadian city in a 3- to 5-year-old childcare centre, focused on a small group of young children’s preferences for particular features of their outdoor play space. The children’s preferences were explored through the analysis of a collection of children’s photographs of their favourite features of the outside play space of their childcare centre and through conversational interviews with the children regarding their photographs. The children offered insight into their preferences for the natural environment, they also identified the importance of including elements of the built environment (paths/gradients, climbing frames) and materials like spades, shovels, trucks, pipes, buckets and pumps that support children’s efforts to control their play space and change the play surroundings to suit the needs of their play. The preferences shared by children expand current research by capturing children’s voices regarding their preferences for elements in their outdoor play spaces.
Preface

The Content of this thesis document is based on original unpublished work conducted by the graduate student, Laurel Donison, under the supervision of Dr. Margot Filipenko. The research conducted for this study was approved by the Behavioral Research Ethics Board (BREB) at the University of British Columbia under the certificate number H17-00499.
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Acknowledgements

I would especially like to thank my supervisor Dr. Margot Filipenko for her ongoing encouragement, advice, humor and support. I have been very lucky to have a supervisor who has cared so much about my work and I appreciate the guidance she has provided me throughout my graduate studies and the completion of this study. I would also like to thank Dr. Iris Berger and Dr. Laurie Ford for their suggestions, thoughtful feedback and support. I appreciate all the support and assistance from the Faculty and students in the UBC Early Childhood community. A special thanks to the children who made this study possible and the Early Childhood Educators who work with them.

Finally, I would like to thank my family and friends, I am grateful for the patience and support that they have provided me with throughout this project.
Chapter 1: Introduction

There is much evidence regarding the benefits of outdoor learning and experiences. For example, Dillon, Morris, O'Donnell, Reid, Rickinson, and Scott, W. (2004) report:

The foci of outdoor education can include learning about: nature, society, and nature-society interaction with one’s self. Outdoor education can involve working with others, developing new skills, undertaking practical conversation and influencing society. The intended outcomes of such experiences can encompass: knowledge and understanding, attitudes and feelings, values and beliefs, activities or behaviors, personal development and social development. (p.1)

In Early Childhood Education there are many things we can do to help create quality care for children. The spaces and experiences we give children impact the way they learn and such spaces are crucial to children’s overall development in a variety of ways (coordination, muscle strength, spatial understandings, generating hypothesis and self-confidence to name a few). Professionals working with children can help provide them with opportunities for outdoor play and should be aware of the benefits of outdoor play particularly given the increasing numbers of children who are in care and for whom opportunities for outdoor play may be limited (Brockman, Jago, & Fox, 2011; Davies & Dotchin 1995 Storli & Hagen, 2010;)

While the benefits of outdoor activities to children’s growth and development are well documented there has been little research focused on outdoor space for young children in Early Learning and Childcare settings (Merewether, 2015). This study will address part of the gap in the research by exploring children’s ideas and preferences regarding outdoor play spaces available to them in a childcare center.
Background to the Problem

The following section provides a background of what current research identifies as the advantages of outdoor play and types of outdoor play spaces or what Parsons (2011) identifies as outdoor playscapes. It begins with a section addressing outdoor play and then explores natural play spaces and constructed play spaces.

Outdoor Play

Outdoor play is an important aspect of a high-quality Early Childhood Education curriculum that allows children to become familiar with nature and the world around them. Taylor and Morris (1996) report that The National Association for the Education of Young Children (NAEYC) identifies outdoor play as an essential component of the early childhood education curriculum designed to support children’s physical, cognitive, and emotional development.

The following benefits of outdoor play to children’s growth and development have been identified:

- Supports multiple development domains: intellectual, emotional, social, spiritual and physical (Kellett, 2005)
- Supports creativity and problem solving (Kellett, 2005)
- Enhances cognitive abilities (Wells, 2000)
- Improves social relations (Burdette & Whitaker, 2005)
- Reduces stress (Wells & Evans, 2003)

With increasing numbers of young children spending longer periods of time in childcare programs (Clarke, 2011) it seems timely and appropriate to investigate young children’s preferences and perspectives on the outdoor play spaces available to them in a childcare centre.
Outdoor Play Spaces

Natural Place Space
There are two types of outdoor play spaces: natural and constructed. Children’s learning through natural environments is not a new idea. For example, in the 19th century Frederich Frobel founded the original kindergarten which provided opportunities for children to learn through nature and play (Andrachuk, Edgar, Esperjesi, Filler, Groves, Kaknevicius, & Young, 2014). While still comparatively rare, as the benefits of outdoor play on the whole child have become better understood, modern recreations of the children’s forest and nature schools are becoming more popular in North America. The natural environment as an outdoor play space offers children something that the constructed outdoor play space environment cannot and that is diversity in terms of sensory experiences. A defining feature of nature-based programming is children’s on-going relationship with the land and environment (Parsons, 2011).

Constructed Play Space
The second type of outdoor play space is the constructed play space. While natural play spaces provide both sensory stimulation and diverse challenges that meet children’s individual needs, it is possible through carefully designed and constructed outdoor play spaces to simulate natural playscapes. Such constructed play spaces include fixed play equipment (e.g., climbing frames, swings and so forth); landscaping including plantings; and natural and loose materials (Parsons, 2011).

While it can be argued that the majority of outdoor play spaces fall under the category of constructed outdoor play spaces, the outdoor play spaces offered to children in childcare varies from center to center (Monoz, 2009). Each outdoor play space is unique depending on a number
of variables including the location of the center, the size of the center, the number of children and so forth.

Herrington and Lesmeister (2007) have identified what they refer to as modular outdoor play space – such spaces contain prefabricated equipment (e.g., climbing equipment or swing sets). These play spaces account for the majority of outdoor play spaces in North America.

However, while size, cost, population and policy might impact constructed outdoor play spaces there are calls for quality in outdoor play spaces. For example, National Association of Education of Young Children (NAEYC, 2014) released a report on Quality Outdoor Play Spaces for Young Children. While broad in its scope the report identifies the following key features of quality outdoor play spaces:

- Multipurpose open spaces: For children to engage in a range of gross motor activities such as running, jumping, crawling and rolling.
- Anchored play equipment: For example, climbing structures, swings, slides and monkey bars.
- Natural elements: Such as trees, grass and water (p. 29–30).

Additionally, the NAEYC (2014) suggests sand play areas, water play features and gardens for children to engage in growing and experiencing the life cycle of plants.

Definitions of Key Terminology

**Outdoor Play Space**

For the purposes of this study, an outdoor play space refers to outdoor play spaces available to children enrolled in childcare centres. These spaces are attached to the childcare centre and
access to these outdoor play spaces is part of the daily scheduled programming of the childcare center.

**Purpose of the Study and Research Questions**

The purpose of this study is to gain a better understanding of young children’s perspectives of the elements of outdoor play spaces available to them. Children’s perspectives of the elements of the outdoor play spaces available to them can provide insight into the ways in which such spaces can be designed to support children’s engagement with such spaces. The main research question addressed in this study was:

- What are the views of young children (3- to 5-year-olds) in an early childhood education setting regarding the elements available to them in the outdoor play spaces?
Chapter 2: Literature Review

Overview
This chapter presents the theoretical perspectives and research findings relevant to this study. First, the research that considers the role of children’s voices in research is discussed. This is followed by a description of children’s play and specifically the kinds of play activities supported in outdoor play spaces. Finally, the design of outdoor play spaces is discussed.

Accessing Children’s Voices in Research
Traditionally, research into children’s social care has been based on the assumption that adults have a greater knowledge of what types of activities are best for children’s growth and learning (Morgan, Gibbs, Maxwell, & Britten, 2012). However, with the development of the United Nations Convention of the Rights of the Child there has been an increasing demand that researchers develop a child-centered approach.

Greene and Hogan (2005) suggest children’s lives benefit from being considered from multiple perspectives and it can be argued that the child’s voice is an essential perspective that deserves to be prominent in issues related to children. Indeed, Greene and Hogan argue that because of the widespread acceptance and official endorsement of the UN Declaration of the Rights of the Child (UNRC) researchers have an obligation to both listen to and assist children in expressing their perceptions and views on matters which affect them.

It is stated that from a research perspective we have much to learn about children from children (Greene & Hogan, 2005). This study recognizes the child as an individual whose experiences and whose response to those experiences are of interest to themselves and others (Greene & Hill, 2005). However, accessing children’s voices comes with problems. There is an assumption that researchers can access children’s experiences through children’s actions and
words as well as reports regarding the children’s subjective world(s). It is suggested that information obtained from children must be in ways that are developmentally appropriate (i.e., infants, young children and youth cannot be treated identically). Thus, it is essential for the researcher to adjust the mode of enquiry to meet the developmental needs of the child-participants. Among the wide range of possible methods that are useful in accessing children’s experiences and perspectives, Greene and Hill (2005) suggest the following:

- Observations that may include children’s actions and verbalizations.
- Interviews that may involve a single child with a single interviewer.
- Creative methods that access children’s imagination
- Elicited self-reports and children’s spontaneous narratives, which may involve children in writing or recording their views or responding to scenarios and vignettes and so on.
- Use of material props and visual prompts, for example dolls, puppets and other toys or games and using pictures, cartoons or photographs as triggers or prompts. (p. 14-15)

Clearly and as stated above, the choice of method(s) will depend on the appropriateness of the purpose of the research and the developmental needs of the child-participants in the case of this study 3- to 5-year-old children.

However, while there is an increasing demand that children’s voices are essential in matters that concern them, there are challenges facing the researcher engaging in child-centered studies – specifically, issues of power, voice and representation. Christensen (2004) discusses the need for close social interaction with the child-participants over time and identifies that the researcher working with child-participants must be self-reflective and consider whether the
practices employed in the research process are in line with and reflective of children’s experiences, interests, values and everyday routines. Additionally, the researcher must consider ways in which the child-participant can be given the lead in the research process and assurance that her voice will be respected and issues of confidentiality respected. Christensen (2004) writes:

It is important to explore ideas about the exchanges between participants in research and also the set of ethical values, such as confidentiality and trust, that underscores the work we do. Working together with children in research requires attention to the trust and loyalty that accompanies it. (p. 172)

**Children’s Play**

Play is recognized as an important part of children’s lives. In the *B.C. Early Learning Framework* (2009) play is identified as vital to young children’s daily lives in promoting their healthy physical and intellectual development (p. 12). In fact, play is considered so important to child development that the *United Nations Convention on the Rights of the Child* (1989) Article 31 recognizes the right of the child to engage in play and recreational activities appropriate to the age of the child.

Gray (2013) writes that play cannot be defined in terms of any single characteristic but suggests five characteristics of play:

1. Play is self-chosen and self-directed: Players choose not only to play, but how to play.
2. Play is intrinsically motivated: From the perspective of the player, the play activity is in and of itself rewarding.
3. Play is guided by flexible mental rules: Play always has structure, and that structure derives from rules in the players’ minds but, which must be shared by all players.
Different types of play have different types of rules for example in dramatic play players must abide by their shared understanding of the roles that they are playing.

4. Play is imaginative: Play takes place in an imagined world and is governed by rules in the participants’ minds rather than in the laws of nature. The most obvious example is in socio-dramatic play where the players create the characters and plot.

5. Play is conducted in an alert, active and non-stressed frame of mind: This characteristic of play flows from the previous four, that is, because play involves conscious control of the participant’s behavior and with attention to rules requires and active, alert mind. In short, participants have to think actively about what they are doing.

Other researchers have described the cognitive and social aspects of play. Building on the work of Piaget, Smilansky (1968) identified five categories of cognitive play, which are related to cognitive competence: Functional play that consists of simple repetitive movements with or without objects; constructive play in which the child manipulates objects to construct or create something; dramatic play in which the child creates imaginary situations to satisfy the child’s personal wishes and needs; and, games with rules which requires the child to accept the prearranged rules of the play or games. These four types of play unfold in a relatively fixed sequence with functional play appearing first and games with rules last (as cited in Rubin, Maioni & Hornung, 1976, p. 414).

Parton (1932) described six sequential social participation categories: Solitary play in which the child plays alone with her own toys; parallel play in which the child plays alongside another child but still with her own toys; associative play when the child truly begins to play with another child and may share toys, however, the child may still have her own storyline or game objectives; cooperative play in which the child cooperates with other children subsuming
her own needs to meet the goals of the play event (e.g., dramatic play); games with rules which require the child to follow the rules set by other children; and, onlooker play when a child watches other children play but does not participate.

Play presents the child with opportunities to grow because it meets the needs of the whole child: Cognitive, social, emotional and physical. Play benefits each of these domains in direct and indirect ways:

Children learn and practice cognitive skills including language, problem solving, creativity, and self-regulation. Socio-emotional growth can be seen in children’s ability to interact with others, negotiate, and compromise. They practice strategies to cope with fear, anger, and frustration … block building; drawing, running, and jumping all contribute to the development of fine and gross motor skills. (White, 2012, p. 8)

In short, through play children gain an understanding of the world and of themselves. Children learn from the materials they use during play as well from the children they play with. Macintyre (2016) suggests that play provides the following:

- An opportunity to pretend as a means of developing language, imagination and creativity
- Independence to determine the level of challenge in an activity
- Decision making/problem solving opportunities about what to do and how long to do it
- Freedom to abandon one activity and try another and
- Above all, satisfaction in following individual ideas and finding achievement in accomplishing something new.  (p.24)
Not only do children learn through play, we as adults can learn more about each individual child through the way they play. Observing a child during play opens many windows for educators to learn more about a child and what s/he can do or are thinking. From watching a child play and being a play partner the adult can develop a relationship with a child that can help them learn more about the child (Forman & Hall, 2005).

Play can happen indoors and outdoors. The classroom (inside) and the playground (outside) are environments that offer rich opportunities for children’s engagement in play. Recognizing that play is a need for children, means creating environments that support this idea and encourage children to play so they can learn.

Outdoor Play Spaces
Traditionally, children’s free play occurred in wild or natural spaces – whether it was a big tree, or a woodland area or simply a field. However, while research has identified the benefits of children’s free play in nature, by the 21st century the environment of many children has become the urban areas of large industrial cities with many young children spending a large part of their day in a childcare setting. For children, outdoor play spaces are most often constructed play places. Research has shown that these two play environments (natural/wild and constructed) offer children different experiences:

Natural Play Environment
The natural play environment can be defined in two ways: 1) as the untouched wilderness; and 2) natural spaces that have been impacted by humans – for example, parks, gardens and pasture areas. In the 21st century young urban children may not have access to the
untouched wilderness, however, with careful planning these children can have access to constructed natural play environments that include gardens and natural areas.

**Constructed Play Environment**

Constructed play areas can be designed to incorporate natural processes and elements that may include trees, stumps, grass, water and pebbles. The landscaping may include natural elements such as trees or shrubs as well as flowering plants and incorporate topographic variation such as mounds, terraces or slopes.

Regardless of discussions regarding the best outdoor play space design for children’s outdoor play (natural or constructed) there is agreement on the importance of outdoor play. Specifically, it is agreed that outdoor play is important to children’s healthy growth and development (Fjortoft, 2001; McBride, 2012; Pellegrini, 2005).

Outdoor physical play offers children health benefits including aerobic endurance, muscle growth, strength and coordination as well as supporting creativity and problem-solving (Pellegrini, 2005). However, the benefits of physical activity can only happen in well-planned outdoor play spaces. Nilsen (2014) writes that outdoor play spaces should not be “overly designed or filled with constructions or play equipment restricting children’s creativity” (p.2). Thus, the amount of space offered, as well as the structure of the space and the materials within it, will impact the children’s experience in the outdoor play space.

Another aspect of children’s engagement in outdoor play spaces is the time afforded to outside play. According to the Canadian Institute of Child Health, children in 36% of studied child-care centers spent less then 10% of their time engaged in outdoor play and lack of space
was the main reason for children not spending time in outdoor play (Herrington & Lesmeister 2006).

Not only is the amount of space offered and the time spent in the outdoor play space important but the materials and the structure of the outdoor play space itself will impact children’s play experiences. The materials available to children will not only impact the type of play they engage in but also encourage different types of play. For example, sand, earth mud or fine gravel for children to dig, may help develop gross and fine motor skills. These materials may also encourage pretend/dramatic play and problem solving.

The materials offered may be natural or artificially created materials and each type offers benefits to children’s learning. Materials such as grass, rock and sand are examples of natural materials – materials that give children the opportunity to connect with nature. Other, man-made materials such as play structures and kits (monkey bars, swings and climbing frames, etc.) are common in Canadian playgrounds and are strongly influenced by the safety regulatory codes of North American communities.

Zamanis (2016) suggests integrating the natural and the constructed. He identifies three different types of play grounds or zones. These include: the natural zone, the manufactured zone, and the mixed zone.
Each of these zones is unique because of its specific characteristics. Thus, what happens within each zone will be different because of the space itself and the structure of the space. Recognizing that each space is different is important because what each child experiences and how they feel about the space will be different.

Zamanis (2016) suggests the type of cognitive play supported by particular outdoor play space zones include:

- **Functional**: Involves simple or repetitive motor behavior, such as jumping, climbing and so forth.
- **Constructive**: This behavior is recognized when children manipulate and shape an already familiar material with a direct goal in mind.
- **Exploratory**: Identified when children examine the qualities of objects to gather visual data about physical features.
• Dramatic: This behavior occurs when children play the role of someone, engage in a pretend activity with an object or someone, or assign life to an inanimate object.

• Games with rules: Identified when children employ a sense of competence with peers while creating regulations for games.

The research of Norsdahl and Einarsdottir’s (2015) explored children’s views and preferences regarding their outdoor environment. The research confirmed that children prefer outdoor play spaces with diverse opportunities for different types of play. Children’s responses identified their need for physical challenge but also the need to be secure; the importance of opportunities for exploration and contact with others as well as creating a nest or space for themselves and the enjoyment of beautiful things in the outdoors.

Another important aspect of outdoor play spaces is the access to wild life (insects, spiders, snails, birds, etc.) children can observe in these spaces. For example, children may learn about the protection and care of living things from both observations and speaking with their peers and with their teachers. “Empathy for living organisms can be based on pleasurable early childhood experiences, including wildlife observation and the care of animals” (Herrington & Lesmeister, 2006, p.64). Experiences with wildlife will be different depending on where the childcare center is situated and the surrounding environment. Each childcare centers’ environment is unique and therefore the experiences that occur are different, depending on the environment. Different spaces will support different areas of development in different ways.

Herrington and Lesmeister (2006) write that many outdoor play spaces in North America are poorly designed and do not express the unique qualities of playing outdoors. The research of Herrington and Lesmeister found that quality outdoor play experiences had the following characteristics: Elements for children to manipulate and make their own; are designed to the
scale of the child; offer opportunities for the child’s imagination to shape the play experience; and offer areas for children to play along or in a group (p. 8). These findings formed the basis of what the authors refer to as the 7Cs criteria that should be used in the design of outdoor spaces in concert with existing safety codes and regulations. The 7Cs are:

1. **Character**: Refers to the overall feel and design intent of the outdoor play space. In short, the play space should be designed to reflect the unique character of a place.

2. **Context**: Refers to the small world of the play space itself, the larger landscape that surrounds the center, and how they interact with each other.

3. **Connectivity**: Indicates the physical, visual and cognitive relationships of the play space itself (e.g., a hierarchy of pathways can indicate relationships and offer movement through the play space).

4. **Change**: Suggests different sized spaces designed in the play area and how the whole play space changes over time (e.g., spaces that offer children opportunities to be along – “to get away” or to be with a friend in pairs). Materials that offer growth and change – for example, sand, mud, gravel and vegetation (fallen or picked) are materials that can be shaped, moved and mixed.

5. **Chance**: Refers to open-endedness or flexibility – spaces that have enough malleable material that allow children to create and design through stimulating and spontaneous explorations of messy materials in messy zones (e.g., water, sand, mud).

6. **Clarity**: Refers to the positioning of zones to maintain the integrity of spaces. For example, large play structures need to be carefully placed in order that they not dominate or interfere with other types of play.
7. Challenge: Refers to the physical and cognitive encounters that a play space provides.

Settings must challenge children without being hazardous.

Summary

This chapter provides a review of the theory and research that is relevant to the ways in which we access children’s ideas, beliefs and perceptions of their outdoor play spaces. The review began by outlining the importance of including children’s voices in research that relates to and impacts the lives of children. The review then looked at research and theory that provides insight into play. Definitions of play include both the cognitive aspects of play (Smilansky, 1963); social aspects of play (Parton, 1932); and, the five characteristics of play as: self-directed, intrinsically motivated, guided by flexible mental rules, imaginative and conducted in an alert, active and non-stressed frame of mind (Gray, 2013). In short, research provides evidence that play presents the child with opportunities to grow because it meets the needs of the whole child: cognitive, social, emotional and physical.

The review then looked at the theory and research on outdoor play spaces and identified characteristics of the two types of outdoor play spaces: Natural/wild and constructed. Research suggests that the amount of space offered, as well as the structure of the space and the materials available within it, will impact children’s experiences in outdoor play spaces. The importance of time spent in outdoor play activities is critical to children’s growth and development as are the materials and structure of the outside play environment. Zamanis (2016) suggests that outdoor play environments can be thought of as reflecting three zones: The natural zone, the manufactured zone, and the mixed zone. Zamanis suggests that each of the outdoor play space zones supports a particular type of cognitive play. The work of Herrington and Lesmeister
(2006) identified seven characteristics to consider when designing outside play spaces: character, context, connectivity, change, chance, clarity and challenge.

In summary, outdoor play spaces are essential to children’s growth and development (physically, emotionally, socially and cognitively), however, much depends on the available space (rural or urban); available funding for the development and upkeep of the outside play space, the design of the space (e.g., primarily a constructed and manufactured space or a mixed zone space with access to the natural environment as well as constructed/manufactured zones); the materials available to children in the outside play space; the time spent in the outdoor play environment and the opportunities for children’s engagement in a range of outdoor play zones.
Chapter 3: Methodology

Overview
This chapter outlines the design of this qualitative research study including the methodology used and details of the procedures for the study. First the case study methodology is described as well as its appropriateness to address the research question for this study. This is followed by a description of the role of the researcher, the criteria used for the selection of the childcare centre and participants as well as details used to recruit the participants. Then, the process of data collection is outlined, including the types of data collected and the process of data collection. Finally, the chapter concludes with an outline of the data analysis procedures and the ethical considerations relevant to this study.

Purpose and Research Questions
The purpose of this study is to gain a better understanding of young children’s preferences for elements of their outdoor play spaces. The main research question addressed in this study was:

- What are the preferences of young children (3- to 5-year-olds) in an early childhood education setting regarding the elements available to them in the outdoor play spaces?

Theoretical Framework
This study is grounded in social constructivism that holds that children learn through interactions with their environment and others. A social constructivist perspective assumes that children and adults, play an active role in their own socialization process (Freeman & Mathison, 2009). Vygotsky states that the child’s greatest achievements are possible in play because: “In play a child behaves beyond his average age, above his daily behavior; in play, it is as though he were a head taller than himself” (Vygotsky, 1978, p. 102). Thus, play and collaborations with
others during play facilitates the child’s learning.

This study is also framed by the notion that all children should be recognized as having human rights. In particular, this study recognizes the guiding principles of articles 4 and 12 of the *UN Convention on Rights of the Child: The United Nations Children’s Fund* (UNICEF, 2014):

- Article 4 (Protection of Rights): Governments have a responsibility to take all available measures to make sure children’s rights are respected, protected and fulfilled.
- Article 12 of the convention states that a child who is capable of forming his or her own view should have the right to express these views freely on all matters affecting the child, and that those views should be given weight in accordance with age and maturity (Convention on the Rights of the Child, 1989).

**Methodology**

**Case Study**

Case study design is defined as a multifaceted investigation using qualitative methods to explore a single social phenomenon (Feagin, Orum, & Sjoberg, 1991). Merriam (1998) writes that the single most defining feature of a case study is that it is a bounded system – that is, what is going to be studied can be seen as having a carefully defined context, for example, a program, a group, a class or a school. The bounded system is selected because it is an instance of some specific event or concern. In this study, the bounded system was the views of a select group of 3- to 5-year-old children enrolled in a single childcare centre toward their outdoor play space.

Merriam (1998) writes that case studies can be described by the overall intent of the study. That is, case studies can be largely descriptive, interpretive or evaluative. A descriptive case study presents a detailed account of the phenomenon under study with the intent of
providing basic information about an area about which little is known. Interpretive case studies contain rich description gathered with the intent of analyzing or theorizing about a phenomenon. Evaluative case studies involve description, explanation and judgment leading to grounded theory. This study is an interpretive case study in that it aims to gather rich descriptive data from a select group of 3- to 5-year-old children enrolled in one specific child care center with the intent of analyzing these children’s views of elements in their outdoor play space.

**Research Site.**

In order to study 3- to 5-year-olds perceptions regarding their preferences of elements in their outdoor play spaces, it was a necessary requirement that the context and conditions were available to provide a rich data source. Patton (1990) writes that purposeful sampling is a way of selecting information rich cases for in depth study of a phenomenon of interest. To identify a purposeful sample, it is necessary to determine the selection criteria to guide the selection of a site to be studied (Merriam, 1998). The criteria established must reflect the purpose of the study. Since the purpose of this study was to investigation 3- to 5-year-old children’s perceptions of their outdoor play spaces it was essential that the children have daily access to outside play spaces. To that end, the following criteria were established: First, the childcare centre needed to be a full-day licensed childcare facility that accommodated 3- to 5-year-olds. Second, there needed to be an established outdoor play space. Third, the children needed to have daily, scheduled access to this outdoor play space and, finally, the childcare centre should value and support children’s outdoor play.

Guided by the above criteria and the principle of purposeful sampling, a site was chosen that met all the requirements. This site is located on the campus of a university in a large urban area in Western Canada and accommodates children from 18 months to 5-years-of-age (mixed-
The center has access to nature through the incorporation of the surrounding forests, gardens, etc. The play space is best described as a *mixed zone outdoor play space* (Zamanis, 2016) that consists of both natural and prefabricated materials. The thoughtful design of this play space includes natural elements such as trees, a range of plants (including plants native to the area), wood, dirt, water, etc. This provides opportunities for interactions with natural elements that can influence the children’s sensory experiences and understanding of the natural world. The space also consists of concrete paths, a climbing structure with a slide and a picnic bench which are all components that may be seen as artificial.

The outdoor play space is divided into two parts. One area runs along the front of the building and is specifically designated for the toddlers (18 months to 36 months). The second runs along the side of the building and is designated for the preschool age children (36 months to 60 months or 3- to 5-year-olds). This was identified as the site for this study since it is where children aged 3- to 5-year-olds (the focus of this study) spend their outdoor time.

The 3- to 5-year-old outdoor play space includes a covered space that offers year-round access to the outdoor play space. Major features included: a water feature with a waterfall and water spout; a sand/mud area with access to the water; a climbing structure with ladders, a vertical rock climbing wall and slide; an area of natural plantings; a woodchip area with access to wooden boards and wood stumps; finally, a bike path that meanders around the outdoor play space.
From the website and conversations with the Director of Childcare Programming, much information was gained about the program of this childcare center. The philosophy of the chosen site embraces both indoor and outdoor play. The following is taken from documents of the childcare centre:

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1 The Beaver Child Care Center is a pseudonym.
We honor and value play. We understand play to be self-controlled and self-directed. We believe that in play children consider relationships between people, living beings, materials, and physical places. We understand play as essential in developing critical thinking abilities and creativity. In our centres, children spend their days exploring their world with ample opportunities to play in both indoor and outdoor environments.²

**Participants**

The children invited to join the study were children who met three criteria: First they were between the ages of 3- to 5-years-of-age; second, they were registered full-time in the childcare center full-day program; and third they were regular attendees at the centre during the data collection period. Letters introducing the research project and inviting participation accompanied by consents and assents were delivered to the families of those children who were between 3- to 5-years-of-age. From these invitations eight families agreed to participate and returned the signed parent consents and child assents.

However, once the study began, it quickly became apparent that not all children were equally interested in being participants in the study so with assistance from the childcare centre staff four children were identified as focus participants. These children were comfortable using the digital cameras and engaging in conversation with the researcher about their photographs. Additionally, they attended for the entire period of the data collection. The four child participants included two boys and two girls.

² This comes from the Research Site childcare center’s philosophy posted on their website.
Table 1 Characteristics of Child Participants

<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>Sex</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neil</td>
<td>36 months</td>
<td>male</td>
</tr>
<tr>
<td>Chris</td>
<td>48 months</td>
<td>male</td>
</tr>
<tr>
<td>Liz</td>
<td>48 months</td>
<td>female</td>
</tr>
<tr>
<td>Anna</td>
<td>48 months</td>
<td>female</td>
</tr>
</tbody>
</table>

Researcher’s Role

Mason (2002) writes that when the researcher enters the site to carry out some form of observation, the researcher must prepare not just for the technique of observance, but also for social interactions (p. 87). It is essential, therefore, that the researcher begins to identify a role on the continuum between complete observer and complete participant. Spradley (1980) identifies five levels of participation as follows:

1. Nonparticipation: This is the lowest level of participation and is usually accomplished by the researcher watching a video of the situation;

2. Passive participation: The researcher is present but does not interact with the participants;

3. Moderate participation: The researcher attempts to balance the insider and outsider roles by observing and by participating in some but not all of the activities;

4. Active participation: The researcher does what the others do, generally, but does not try to blend in completely.


The role of the researcher is dictated by the needs of the study. In order to meet the needs of this

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3 All children’s names are pseudonyms.
study (i.e., to establish close, comfortable relationships with the young child-participants and to engage in conversations/interviews with them) the role of the researcher fell between moderate participation and active participation.

Data Collection

Preliminary Explorations

Initially a pilot project was undertaken in a toddler childcare center (18 months to 36 months). It quickly became clear that even for the 3-year-olds using a digital camera was complicated. The children’s fine motor skills and the size of their hands made it impossible for them to hold and use the camera. However, this experience informed both that the children needed to be older (i.e. 3- to 5-year-old childcare centre) and also that the camera needed to be very simple and able to withstand rough use.

Overview

The forms of data collected in this study included photographs of outdoor play spaces taken by the child participants and transcripts from conversational interviews with the child participants using the child participant’s photographs as prompts. The hallmark of case study research is the use of multiple data sources, which also provide evidence of data credibility. Data sources for this study included: conversational interviews, physical artifacts (photographs) and researcher’s field notes. In a case study, each data source is considered one piece of the “puzzle” that contributes to the researcher’s understanding of the whole phenomenon (Baxter & Jack, 2008).

Initial Meetings

Following confirmation of ethical approval (see Appendix A) the Beaver Childcare
Centre was contacted through email to explore whether the center was willing to participate in the research study. After a meeting with the staff, agreement was enthusiastically given. A letter of introduction to the study with consent and assent forms were distributed to the parents/guardians of the 3- to 5-year-old children enrolled in the Beaver Childcare Centre (see Appendix B and C) by the childcare staff. Consent and assent was given for eight of the 3- to 5-year-old children enrolled in the Beaver Childcare Centre to participate.

A decision was made not to exclude any children enrolled in in the Beaver Childcare Centre from activities that all children might enjoy. Specifically, using the digital cameras and talking with the researcher about their preferences for elements of the outdoor play space. However, only photographs taken by children with consent and assent were collected and only informal interviews with children with consent and assent were audio taped.

An initial meeting was held with all 3- to 5-year-old children enrolled in the Beaver Childcare Centre. This session, which took place at the childcare centre during a whole group meeting, the researcher outlined her interest in children’s likes and dislikes about their outdoor play space and explained that she would be providing cameras to take photographs of things in the outdoor play spaces that the children liked or disliked. A demonstration of how to use the digital cameras followed. Throughout this initial meeting, children were given opportunities to ask questions, which were addressed by the researcher through appropriate child friendly explanations. Three basic digital cameras were made available to the children to explore for a period of one week during their outside play time. Only the photographs of the child participants (those children with consent and assent) were collected to inform the next phase of the study – data collection.
Photographs

Since the focus of this study was to explore children’s preferences for elements in their outdoor play spaces, photography was chosen as one method of data collection. Specifically, photography offered children the opportunity to identify and record what they found interesting about their outdoor play space. To that end, three simple digital cameras were made available to all children enrolled in the childcare center that served as the research site, however, only those photographs taken by the focus child participants were collected for analysis.

During the exploratory phase (following the initial meeting) the child participants independently discovered some unique features of the cameras; for example, a filter feature that facilitates taking/creating photographs using a particular color. Following the initial exploratory phase and after careful observation of the child participants’ exploratory photographs it was decided to focus the data collection phase by providing a guiding question:

- If you were to build an outdoor playground what should it include?

Conversational Interviews

Conversational interviews were conducted with the child participants around their photographs. Morse and Corbin (2003) describe such conversational interviews as a shared experience in
which the research and research participants (interviewees) are able to create an atmosphere of conversational intimacy in which the participants are able to comfortably discuss their ideas, opinions and stories (p. 338). Such interviews are sometimes called *narrative interviews*. The role of the researcher in these conversational interviews is primarily to listen. The photographs taken by the child-participants provided a scaffold for the conversational interviews with the children regarding their preferences for particular elements in their outdoor environment. Such conversations lasted from 5- to 10-minutes, were conducted as informally as possible (e.g., at the table in the outside space or in the indoor play space) and were recorded with a digital voice recorder. The child participants were invited to talk about their photographs.

**Researcher Field Notes**

The functions of field notes in qualitative research are multiple. Phillippi and Lauderdale (2017) write that the functions include close observation of the environment and interactions of participants; documenting the physical environment and researcher impressions; encouraging researcher reflections; facilitating preliminary coding and iterative study design; and, increased trustworthiness of the study. Using these functions as a guide, field notes were written each day and kept in a small notebook with the purpose of contextualizing this study.

**Data Analysis**

Data analysis followed the two-week data collection. Since the purpose of this study was to access children’s preferences regarding elements of their outdoor play spaces conversational interviews were held with the child participants using the photographs taken by the participants of elements/features of their childcare centre outside play spaces. The bulk of the data to be analyzed, therefore, was the transcriptions of the conversational interviews with the child participants. Transcription codes can be found in Appendix D.
The photographs taken by the child participants and the researcher’s field notes were used in a supplementary way to validate the codes that emerged from the content analysis of the transcripts. The children took 185 photographs in total that were included in the data collection:

See table below:

**Table 2** Number of Photographs taken by the children of the features/elements in the outdoor space by Theme

<table>
<thead>
<tr>
<th>Themes</th>
<th>Number of photographs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural environment</td>
<td>101</td>
</tr>
<tr>
<td>Built environment</td>
<td>63</td>
</tr>
<tr>
<td>Materials</td>
<td>21</td>
</tr>
</tbody>
</table>

**Thematic Analysis**

To gain insight into 3- to 5-year-old children’s perceptions of their outdoor play spaces, a thematic analysis was selected as the most appropriate method. Braun and Clarke (2006) write that while thematic analysis is widely used, there is no fixed approach to this method of analysis. However, the authors offer a six step approach: familiarization with the data; generating initial codes; searching for themes; reviewing the themes; defining and naming the themes; and, writing the report. These steps reflect those outlined by Miles and Huberman (1994). The analysis of this study’s dataset used a combination of the steps outlined by Braun and Clarke (2006) and Miles and Huberman (1994).

**Phase 1: Familiarization with the Data**

In this phase I read and re-read the data, to become completely familiar with its content. To that end, I completed transcriptions of the child participants’ conversational interviews. Sipe (1996) notes that transcription is a form of data reduction in that it reduces the speech of the
participants to the flat and uninflected form of silent written language. The transcripts for this study captured and retained the child participants’ perceptions of their outdoor play spaces. The transcription process also provided an opportunity for the researcher to become intimately familiar with the data.

During this phase of transcription, reading, and re-reading, when something was identified as containing interesting or relevant information, a brief note was made in the margin of the document about the nature of the information identified. In addition, to the reading and re-reading of the conversational interviews, the child participants’ photographs were examined in the context of the interview.

Phase 2: Coding

This phase involves generating succinct labels (codes) that identify important features of the data that might be relevant to answering the research question. To that end, the margin notes written by the researcher during phase 1 were explored and further information was identified for example those comments and photographs that were considered similar were put together and a note identifying an initial code was identified. For example, photographs of the built environment were placed with comments from the transcripts that referred to the built environment. This led to a label (initial code) identifying the built environment. Types of information were identified. In this way the codes and all relevant data, were brought together for later stages of analysis.

Phase 3: Searching for themes

This phase involved examining the codes and collated data to identify significant broader patterns of meaning (potential themes) specifically, as the emerging themes relate to the research
question (children’s views regarding the elements available to them in their outdoor play space). To that end, the list of data items identified was categorized and each item was given a descriptive label. The list of categories identified were explored to see whether some of the categories might be linked in some way. From this analysis major categories were identified and original, smaller categories identified as minor categories. The list of minor and major categories of data were compared and contrasted and relationships between categories were explored. This phase of the data analysis was undertaken in collaboration with my supervisor.

**Phase 4: Reviewing Themes**

This phase involved checking the emerging themes against the dataset (photographs, transcripts of conversational interviews and field notes) to determine that they tell a convincing story of the data, and one that answers the research question. To that end, a visual display was created that assisted in the formation of themes and sub-themes (see Appendix E).

**Phase 5: Defining and Naming Themes**

This phase involves developing a detailed analysis of each theme, working out the scope and focus of each theme. During this phase, each theme was carefully articulated and photographs taken by the children were explored for further evidence of the theme and to help with the ‘story’ of the theme. For example, a clear emerging theme was the Natural Environment. Children’s photographs (101 photographs overall) conversational interviews (half of the children’s comments concerned the natural environment) and observation in the field notes identified children’s interest in the natural environment. Thus, the natural environment was identified as a major theme. Elements of the natural environment identified in the dataset included the sky, bushes, flowers, trees, rocks, water and ground. However following conversations with my supervisor two sub themes were identified in this overarching theme; the
Living Environment and the Non-Environment. In this way, four main themes: Natural Environment; Built Environment; Materials and Missing Elements/Features emerged from the dataset (for an overview of all themes, subthemes and elements see Appendix E).

Phase 6: Writing the Report

The researcher completed a summary of the findings of the research as it relates to the question for this study, by outlining and providing an explanation of each of the themes (with sub-themes) identified in the dataset. Extracts of the conversational interviews and child participant photographs provide examples of and insight into each theme. The findings are presented in chapter four.

Trustworthiness and Validity

Credibility of the study as outlined by Guba (1981) was established through the adoption of case study a well-recognized research method, regular debriefing sessions between the researcher and the researcher’s supervisor (as discussed above), use of reflective commentary in the form of field notes, and rich description of the phenomenon under scrutiny.

Additionally, data triangulation validated data and research by cross verifying the same information and strengthening the research (Mathison, 1988, p. 13). Data triangulation involves using evidence from different types of data sources, for example in this study, conversational interviews, photographs, and researcher field notes. Benefits of data triangulation include:

- A range of data/information sources often gives more insight into a topic;
- Multiple sources provide verification and validity while complementing similar data;
- Inconsistences in data sets are more easily recognized (Jick, 1979).

For the purposes of this study, the child participants’ conversational interviews around their
photographs were recorded and reflective field notes were kept by the researcher. In this way the range of data sources (photographs, conversational interviews and field notes) provided the researcher with a deeper understanding of the question driving the research (*What are children’s preferences for elements of their outdoor play environments?*) and provides validity for the findings.

**Summary**

This chapter outlined the methodology and procedures used in this qualitative study exploring 3- to 5-year-old children’s perspectives of elements in their outdoor play space. A mixed-age childcare centre in a large urban area of Western Canada was selected as the setting for this study and following the receipt of consent and assent forms 4 children aged 3- to 5-years-old (2 females and 2 males) were selected as participants. Since the aim of this research study was to analyze young children’s perceptions of elements of their outdoor play space in a 3- to 5-year-old childcare setting (bounded system) an interpretive case study was chosen as the ideal methodology. Research was collected in the form of conversational interviews with the child-participants around the photographs taken by the child participants. Multiple data sources included transcripts from the conversational interviews, photographs and reflective field notes. Trustworthiness was ensured through the multiple data sources as well as regular debriefing sessions between the researcher and the researcher’s supervisor. Thematic analysis was conducted on the research data to identify themes and sub-themes that represent these child participants’ preferences for elements of their outdoor play space. A detailed description of the findings of this study is presented in the next chapter.
Chapter 4: The Findings of the Study

Overview

This chapter is organized to present the findings of the study in terms of the research question that guided it: What are the preferences of young children (3- to 5-year-olds) in an early childhood education setting regarding the elements available to them in the outdoor play spaces? The themes and sub-themes that capture children’s perspectives on their outdoor play spaces are summarized and examples for the identified themes and sub-themes is included in the form of quotations from the transcripts, photographs taken by the child participants and observations from the researcher’s field notes. Four major themes emerged related to the research question addressed by this study (see Figure 4). Although some photographs could reflect across themes the decision was made to classify the photograph under the theme most strongly represented. For example, see figure 7 below which shows both the sky (sub category of non-living things) or trees (sub category living things). On close analysis the primary focus of this photograph is the trees. Each of these themes is outlined below. A critical discussion of these findings will be included in Chapter Five.
Theme 1: The Natural Environment

The first theme – the natural environment – included all the children’s talk regarding all living and non-living things that occur naturally in their outdoor environment. Within this category two sub themes were identified: Sub-theme 1 The living environment (flowers, bushes and trees), and Sub-theme 2: The non-living environment (sky, water, rocks and the ground).

Sub-theme 1: The Living Environment

Children’s comments in this sub-category revealed interest in the flowers, bushes and trees growing in and around their outdoor play space. Of the 69 photographs taken of the living environment by the child participants 17 (25%) focused on flowers; 29 (42%) focused on bushes;
and 23 (33%) focused on trees. An example of the importance of the living environment is reflected Chris’s comments to me the researcher:

Researcher: If I was to build a playground what should I put in it?
Chris: Hills.
Researcher: A Hill and what else?
Chris: And those Bushes
Researcher: Bushes! Okay what else should I put in my playground?
Chris: Also those flowers over there. (Transcript July 25, 2017)

Neil identified both his knowledge of and particular interest in a particular type of bush.

Researcher: Show me your favorite thing
Neil: Rosemary. (Transcript, July 24, 2017)

In my field notes I documented the children’s interest in berry picking. I wrote:

One child, Anna, has been looking for berries, picking them and eating them for around 20 minutes. When other children come over to the bush where she is picking the berries she offers them some and they take them and eat them. The berries she is picking are blue and red. (July 25, 2017)

Figure 5. Berry Bush by Liz
Liz was observed picking berries and putting them in a pail.

*Researcher*: What are you doing?
*Liz*: Picking berries
*Researcher*: For who?
*Liz*: For myself.

Liz asked the researcher to open the lid of her water bottle and then she poured the berries in and drank the water.


When Chris had the camera he took pictures of the berry bush.

*Researcher*: What do you like in the playground?
*Chris*: the bushes with berries (Transcript July 25, 2017)

Flowers were identified as an important element of the outdoor play area. For example, the following was noted in the field notes:

Following being asked what she was doing with flowers she had picked Liz answered:

“taking pictures of them.” She then put the flowers down one at a time and took photos of them. (Field Notes July 2017)

![Figure 6. Liz’s Photograph of a Flower](image-url)
Children’s comments identified the importance of trees to outside play spaces. For example, in a conversation with Neil he confirmed that trees should be included in outdoor play spaces (transcript, July 25, 2017) and took the following photograph (Figure 6).

![Tree](image)

**Figure 7. Neil’s Photograph of a Tree**

**Sub-theme 2: The Non-living Environment**

Children’s comments in this sub-category revealed interest in the sky, water, rocks and ground included in their outdoor play space. Of the 32 photographs taken of the non-living environment by the child participants 11 focused on the sky (34%); 12 focused on water (40%); 6 focused on rocks (18%); and 3 focused on the ground (8%).

The sky, water, rocks and ground were the non-living natural elements identified in children’s comments. When Chris was asked to identify his favorite part of the outdoor play space, he identified the sky (transcript, July 26 2017). On another occasion when Neil was asked what he was looking at he responded: “Look airplane.” Following Neil’s gaze, I noted that Neil was looking at the contrail left behind by a high-flying plane (field notes, July 26, 2017).
Water was mentioned often in children’s comments. For example, Liz identified that she was making “… bubble tea” (Transcript July 25th, 2017). Children were observed in episodes of dramatic play making and serving cups of tea.

Figure 8. Chris’s Photograph of the Sky

Figure 9. Liz’s Photograph of Bubble Tea
Neil also confirmed his liking for activities that include water.

*Neil:* I took a picture
*Researcher:* Of what? The water?
*Neil:* Ya.
*Researcher:* You do like this part, or you don’t like it?
*Neil:* I do (Transcript July 28, 2017)

The children identified that they would like a water slide, something the playground does not currently have. For an example in one conversation, responding to the question “If I was to build a playground what should I put in it?”

*Neil:* A real water slide.
*Researcher:* A real water slide that would be pretty awesome.
*Neil:* But we don’t have one of those.
*Researcher:* We don’t so when I build my playground I should build that.
*Neil:* Like at the Island Park.
*Researcher:* Oh at Island Park they have a water slide?
*Neil:* Uhuh. (Transcript July 28, 2017)

Large rocks formed part of the playground landscape and according to the children were an important part of the playground. The children used them to stand on and for climbing and jumping off. Children’s activities playing with and on the rocks, were observed and noted:

The children are climbing on the rocks and jumping off of them. They use the rocks to make ramps with the wood and push the cars down them. The children use the rocks as a place to put things on. One child put their shoes on top of the rock and another child placed a pail with sand on the rock. (Researcher’s field notes July 28, 2017)

Neil in particular enjoyed activities that included climbing rocks and indicated his intention of taking photographs of the rocks several times.

*Neil:* I want to take a picture of a rock

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4 Island Park is a pseudonym.
5 The idea of the water slide and water park was a reoccurring theme that I will speak to again at the end of this chapter under theme 5 missing features and elements.
**Researcher:** Of the rock okay, remember you have to move your finger off of the lens.

Later when speaking about building a playground Neil again confirms the importance of rocks in an outdoor playground:

**Researcher:** What else should I put in my playground?
**Neil:** Rocks! (July 27, 2017).

![Figure 10. Neil’s Photograph of a Rock](image)

**Theme 2. Built Environment**

The second theme – built environment – included all the children’s talk regarding all of the built play spaces available to the children in the outdoor play space. Within this category five sub themes were identified: Sub-theme 1: Paths and gradient (9%); Sub-theme 2: Wood construction area (29%); Sub-theme 3: Climber (38%); Sub-theme 4: Fences (13%); Sub-theme 5: Sandbox (11%).

Areas of the built environment of the outdoor play space were discussed by the children and were recorded through their photographs.
Sub-theme 1: Paths and Gradient

The paths of the outdoor play space of the childcare centre provided access to the various areas of the outdoor play space. For example, children used the paths to get close to the garden to touch the flowers and bushes and to pick berries.

![Photographs Taken by Liz of Two Different Paths](image)

Figure 11. Photographs Taken by Liz of Two Different Paths

The paths meandered up and over small hills: Neil and Chris both confirmed the importance of these hills in the playground. For example, in conversation with Neil he stated:

*Researcher:* If you came to my playground what would you want me to have?
*Neil:* A hill
*Researcher:* A hill?
*Neil:* Ya you can make a hill
*Researcher:* Okay and what would people do on the hill?
*Neil:* They can bring stuff up. (July 24, 2017)

In a subsequent conversation Neil, again confirmed the importance of hills/gradient.

*Researcher:* Take pictures of things you like on the playground
*Neil:* The hill
*Researcher:* Okay take a picture of it.
*Neil:* I did, look! (Transcript July 26, 2017)
Sub-theme 2: Wood Construction Area

This particular space contained large pieces of wood of various sizes from large (a wood frame), to medium (large pieces for building) to small wood chips that covered the ground. The area was used by the children in a variety of ways. The researcher observed the children using the large pieces of wood to build forts and challenging themselves by jumping off the wood frame. Many episodes of dramatic play were observed (e.g., pretending pieces of wood were a boat or car). Neil flipped over a triangular piece of wood and was sitting on it with another child. As he was doing this he explained to the researcher he was on a boat.

Neil: We’re on a boat
Researcher: Neil what is this a pirate ship?
Neil: No
Researcher: What is it called?
Neil: It’s a land boat
Researcher: It’s a land boat?
Neil: It goes on the water and on the land.
Researcher: Oh where are you guys going in the ocean or a lake?
Neil: We’re going in the Ocean. (Transcript July 26, 2017)

Using the pieces of wood, the children created many types of forts and were observed sitting inside a fort eating berries.
Sub-theme 3: Climber

The climber was one of the children’s favorite places in the built environment. Not only was this evident from the children’s conversations but also from the large number of photographs taken by the children of the climber.

During a conversation with Chris he showed me a picture that he had taken of his friend from on top of the climber see figure 14 below.

*Chris: I took a picture of Angelo down there.* (Transcript July 25, 2017)
Figure 14. Photograph of Angelo taken by Chris from the Top of the Climber
Neil mentioned the climber in more than one conversation.

Researcher: if I make a playground for kids what should I make in my playground?
Neil: A climbing thing
Researcher: okay can you take a picture of it so I know
Neil: I did (Transcript July 24, 2017)

The children identified this space as a place to play with their friends. During a conversation with Neil he spoke about playing under the climber and on the climber with his friend.

Researcher: When you come outside where do you usually play?
Neil: Actually we play up there me and Jeff play up there and down there
Researcher: Okay did you take a picture of it so I will know?
Neil: There’s a spider sometimes so that’s why I took a picture
Researcher: That’s a pretty cool space (Transcript July 25, 2017)

When asking Chris about what I should put in my playground if I build one he said a climber and in another conversation Chris identified the climber as one of his favorite places to play.

Researcher: Where is your favorite place to play on the playground?
Chris: Over there on that thing

Chris was pointing at the climber and took a picture of it.

Researcher: the climber
Chris: Yes (Transcript July 25, 2017)
I wrote in my field notes:

The children are on top of the climber picking up rocks and putting them in a pail. When I asked Chris, what are you doing he said, “Getting food for our horse he’s down there.”

He pointed to the bottom of the climber. (Field notes July 28, 2017)

I also noted:

The children use the steps on the climber to jump off.” One child asked another child to take a picture of him jumping off the steps. (Field notes July 28, 2017)

Sub-theme 4: Fences

Perhaps it’s not surprising that the children took photographs of the many fences that border their outdoor play spaces: the fence at the entrance of the yard; the fence at the top of the hill; the fence at top of the climber; and, the fence that surrounds the outdoor play space (see figures 17 and 18).
Sub-theme 5: Sandbox

The Children discussed building a sandbox in the playground and took several photographs of the sand box.\(^6\)

*Researcher: what else should I put in my playground?*

*Neil: Umm, a sand box*

*Researcher: a sandbox okay did you take a picture of that? Oh yes you did. (July 27, 2017)*

\(^6\) The sand box pictures also included the play materials (pipes, cars and trucks) discussed in Theme 3: Play materials in the environment
Theme 3: Play Materials in the Outdoor Play Environment

The third theme – play materials in the environment – included all the children’s talk regarding materials available to the children to support their play. Within this category two subthemes were identified: Sub-theme 1 Aesthetic materials: wind chimes (16%) and Sub-theme 2: Play materials: toy cars/trucks (26%); pipes (32%); and, pails/shovel (26%).
Sub-theme 1: Aesthetic Objects

Wind chimes were identified by the children as materials they would include in their outdoor play spaces. While these particular objects were not specifically materials that could be manipulated by the children, they provided sound and movement that captured the children’s attention. Neil said he liked having the wind chimes in the playground:

**Researcher:** What else do you love to have in your playground? What do you love to play with?
**Neil:** Wind Chimes
**Researcher:** Do you like listening to them?
**Neil:** Uh Hu! I took a picture of them. (July 24, 2017)

![Neil’s Photograph of the Wind Chimes.](image)

Sub-theme 2: Play Materials

These materials included pipes, pails, shovels, cars and trucks. The pipes, pails and shovels were materials primarily used by the children when playing in the sand or water areas. Figures 19 and 20 above show pipes being used for constructive play in the sand box. As can been seen in those photographs (Figures 19 and 20) the children often used the pipes with cars and trucks in the sand box.
Cars and trucks were also important play materials used in a variety of ways: to race down ramps built against rocks; to ‘drive’ along the pathways; and in the sandbox to help with construction. I wrote in my field notes:

Two children are pushing the cars up and down the hill and using the paths in the garden to push the cars around. The children are following each other. The children fill the dump trucks up with sand and dump it back out. The children also fill the large dump trucks with the large lego pieces and push them around the playground. (July 28, 2017)

Figure 21. Chris’s Photograph of a Truck

The shovels and pails were used with sand and with water. The child participants took several photographs of shovels and pails and confirmed during semi-structured interviews that they liked both shovels and pails.
Theme 4: Missing Feature/Elements

The fourth theme – Missing Features/Elements in the outdoor play environment – included all the children’s talk regarding any features missing from their outdoor play space. Children’s comments regarding features not present in their outdoor play space were an ongoing concern throughout this project. Specifically, the child participants identified that they would ideally like to have a waterslide, a water park and a fish tank as part of their outdoor play space.

Neil discussed the idea of having a water slide in the playground in more than one conversation. For example, on July 24, 2017 Neil identified that a water slide should be included in an ideal outdoor play space:

*Neil:* A real water slide
*Researcher:* A real water slide that would be pretty awesome
*Neil:* But we don’t have one of those
*Researcher:* We don’t so when I build my playground I should build that?
*Neil:* Like at Island Park
*Researcher:* Oh, at Island Park they have a water slide?
*Neil:* Uh Hu! (Transcript July 24, 2017)
On July 25 2017 while Liz and Neil were playing with play dough they constructed a water park.

During this episode of constructive play, they discussed what they were doing with the researcher

**Researcher:** We have two water slides, what else do we want?
**Liz:** We need a water park
**Researcher:** What else should be in the water park
**Neil:** But in the water park we need a waterspout
**Researcher:** A waterspout! Okay
**Neil:** We need a button to put it on
**Researcher:** To press it on
**Neil:** Yea, we need a button and then it will come out like and then
**Researcher:** Where should we put the waterspout
**Neil:** Umm maybe here
**Researcher:** Okay
**Neil:** And then
**Researcher:** We press the button
**Neil:** Yup!
**Researcher:** Pshhhhhhhhh and then people will come
**Neil:** But I need to press that button
**Researcher:** One water slide, two slides waterspout
**Neil:** No! Maybe we don’t need two water slides. (Transcript July 24, 2017)

The conversation regarding the waterslide continued throughout this constructive play episode and included reference to what the role of the waterslide might be in winter and some of the challenges of a waterslide when it is cold.

On July 28, 2017 during an outside observation the children again pretended to build a waterslide this time using pipes and sand. This time their constructive play (building a waterslide) included an element of dramatic play (i.e., that the following day they would use the ‘pretend’ waterslide to slide):

**Researcher:** What are you making? What is it?
**Neil:** This is a water slide
**Researcher:** Cool
**Neil:** So if its sunny enough we can put on that one [indicating where the waterslide can be turned on] we can slide on there and do it like a water slide but tomorrow I will bring swimming shorts. … Swimming shorts swimming shorts are shorts that you can swim
with and I'll sit down and slide on the water slide its a real water slide … I'm going to go get more sand the water slide goes down you slide by yourself into the muddy guck that's a good one.

**Researcher:** That is a good one, where is the water slide going to be?

**Neil:** Its going to be here where Jeff is standing that will be the water slide and you'll slide down there into the mucky mud water … When the water is going you will just hop on the slide and slide right and the water will just wash the sand off and then there will be more sand so that's how the water will go (Transcript July 28, 2017)

Neil also spoke about having a fish tank in an ideal playground.

**Neil:** I want a fish tank with water inside and two big waterslides even water filters and the fish can just swim into them (Transcript July 28, 2017).

**Summary**

In this chapter, the findings of the study related to 3 – 5-year-old children’s preferences for their outdoor play spaces were presented. The use of conversational interviews and the child participants’ photographs enabled the child participants to identify important elements of their outdoor play spaces that met their outdoor play needs. Generally, the children were in agreement about their outdoor play spaces and specifically what they particularly liked and what was missing from this outdoor play space.

Children identified three major types of outdoor play spaces, *Natural Environment* like the trees, plants, bushes and flowers as well as the non-living natural environment like the sky, rocks, ground and water. and the *Built Environment* that included a climbing frame, paths, sandbox and fencing. Children’s responses also identified the *Materials in the Environment* that enabled them to interact with and upon the natural and built environments for example buckets, spades, pipes, cars and trucks. Additionally, the children identified missing elements of their outdoor play environment. The missing elements included a water slide and a water park. These findings represent the preferences of a small group of 3—5-year-old children regarding the elements of their outdoor play spaces in their childcare centre.
Chapter 5: Discussion

Overview

The purpose of this study was to provide children with the opportunity to identify their preferences of the elements available to them in their outdoor play space. Four 3- to 5-year-old children (two females, two males) shared their perspectives through conversational interviews and photographs. The findings of this study revealed that children were capable of identifying their preferences regarding the outdoor spaces available to them. The children identified three features of their play environment that were important to them; natural environment, built environment and play materials. Additionally, the children identified features/elements that they would like included in their outdoor play space. The implications of these findings for children’s outdoor play spaces and the design of outdoor play spaces are discussed, as well as the strengths and limitations of the study. Finally, this chapter concludes with recommendations for future research in this area.

Discussion of the Findings in Relation to Previous Literature

Accessing Children’s Voices in Research

This study gave children the opportunity to share their opinions and ideas concerning the elements available to them in their outdoor play space at a childcare center. The children shared what they thought were important elements of their outdoor play space through conversational interviews and photography. These data-gathering methods supported children’s rights by giving them an active voice to share information and express their opinions - an approach that supports the notion of children as social actors capable of having and expressing opinions and ideas (Merewether & Fleet, 2013, p.898).
Through conversational interviews with the researcher and photographs taken by the child-participants, the children identified three features of their outdoor play environment that were of particular importance to them. These features were: the natural environment, the built environment and the tools and materials in the children’s childcare centre outdoor play environment. The children also identified features/elements within the outdoor play environment that they would like to have included in these spaces. The findings from this study demonstrate the powerful potential of including children in research projects that impact them.

While interviews in one form or another are a common method used in research with children, interviews with children are considerably different from interviews with adults. Graue and Walsh (1998) write that children are at a stage in life when they may not yet know what they know so indirect methods may be preferable. Smith, Taylor, and Gollop (2000) suggest that it is helpful to think of interviews with children as conversations – that is such interviews should be thought of as providing opportunities to listen to children rather than interviewing them.

Einarsdóttir’s (2007) study, which investigated children’s perspectives on their early childhood settings and aimed to find the children’s views on why they attend playschool; what they do and learn in playschool; and, what they enjoy and what they don’t like in playschool, used individual interviews with the young child-participants and photographs taken by the playschool teachers with a digital camera to focus and motivate the interviews. Additionally, children were given disposable cameras, taught how to use them and told they could take pictures of anything they wanted and what they found important in the playschool. However, Einarsdóttir (2005), found that the children’s photographs were primarily of people (children and adults) engaged in the routines of the day.
This study builds on the above studies in two ways. First, the child-participants were given the following prompt “If I was going to build a playground, what should be in that playground.” As a result of this prompt, the photographs taken by the child-participants were primarily of the features of the playground that they thought should be included in an outdoor play space – preferences. Second, children were engaged in conversational interviews while photographs were being taken. These conversational interviews were different in that the children’s intentions and photographs directed the conversational interviews – that is, the children’s intentions to take photographs and the action of photographing particular elements in the outdoor play space directed the conversations in which the researcher was listening rather than interviewing. This provided the child-participants with the opportunity to both express their ideas in visual images and in verbal language.

In short, this data-gathering methodology (conversational interview and photography) that used a prompt to focus the children’s attention for identifying features of the playground they believed should be included in an outdoor play space and conversations that occurred during the children’s intention to and action of taking a photograph provided an opportunity for the children to direct the conversational interviews.

Finally, these findings suggest that it may be important for children to be in the actual space of the place they are speaking about – that is, being present in a space (in the here and now) may support children’s ability to reflect on and express their thoughts – that is, the child-participants, the photographs, the conversations and being present in the actual outdoor play space was a single experience that supported the children’s reflections on their preferences regarding the elements of their outdoor play space as represented in figure 23 below:
The findings of this study suggest that through careful data-collecting methodologies it is possible to access children’s voices. This study adjusted the data-gathering methodology to meet the developmental needs of 3- to 5-year-old children – that is, data was collected (conversational interviews and photography) while children were actively engaged in the process of identifying what would be photographed, taking photographs and conversing with the researcher about the rationale for the photograph subject choices. In short, in keeping with the United Nations Convention of the Rights of the Child this study was designed to facilitate the needs of children to be able to express their views and their right to have those views heard.

Children’s Interest in the Natural Environment

The natural environment was a theme that emerged strongly from the data. Two subthemes were identified: The living environment and the non-living environment.
The Living Environment

The findings from this study support other research that explored the ways in which children interact with the natural environment. The research findings of Nordahl and Einarsdottir (2015), Beasley (2015), Hasted (2012), and Clark (2011) identified the ways in which young children used the natural environment as a play space to challenge themselves either through climbing, hanging, or swinging on trees or hiding in small spaces or creating “nests” where they could play or explore the natural living environments of insects and observe the flora and fauna and wild berries of the environment. This study builds on these findings in two ways: First, this study went beyond observations to conversational interviews with children and asking them specifically what their preferences were in terms of their outdoor play spaces. Secondly, building on the work of Harvey (1989) and Herrington and Lesmeister (2007) who noted children’s preferences for the natural environment, children in this study were observed harvesting berries and fruits from bushes in their outdoor play spaces and using them either to eat or as materials in their dramatic play. On several occasions children discussed the role (to provide food) of berry bushes and their importance to the children’s outdoor environment.

While this study confirms children’s interest in the natural environment the number of photographs taken by the children of their natural environment – 50% of all photographs taken – suggests that the natural environment is, head and shoulders, the most importance element of the children’s outdoor play space.

The different types of vegetation within the children’s play space not only offered opportunities for different types of play and learning – in particular, episodes of dramatic play

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that included ‘making tea’ with plants and identifying trees and bushes as settings for make-believe/dramatic play but also supported children’s learning – for example, children could name many of the plants growing in their outdoor play space and identify which berries were safe to eat. Overall, this study identifies that these child-participants are beginning to understand aspects of stewardship of the natural environment – for example, being careful with the plants and bushes while playing and the needs of growing plants (water and sun).

**The Non-living Environment**

In this study the children identified the sky, water and rocks as important aspects of their outdoor play spaces. These findings support other studies that identify children’s interest in these non-living elements within their outdoor play spaces.

In line with the research of Clark (2010) and Nedovic and Morrissey (2013) that identified that children notice things not only up close but far away (the sky), the children in this study took pictures of the sky (some of which included cloud formations) and noticed details such as the contrails left by aircraft engine exhaust.

The research of Nedovic and Morrissey (2013) that identified children’s interest in collecting little rocks, which they called pebbles was also noted in this study. However, the child-participants in this study had access to rocks of all sizes and were interested in climbing them, using them in dramatic play as well as collecting them. Additionally, the photographs the children took of the rocks were generally close-ups that revealed the colours and textures of the rocks.

The research of Beasley, (2015), Norðdahl and Einarsdóttir, (2014), and Nedovic and Morrissey (2013) indicate children enjoy having water in their play space whether it is in the form of rain, snow, waterfalls or ponds. The above research reveals that children use water in
different ways. For example, sensory play – that is, the children mix water and soil creating mud or splash and touch the water enjoying the ‘feel’ of the water. This study builds on these findings by identifying the ways in which the child-participants use water for pretend play – for example, making ‘tea’ by mixing it with berries; for cleaning purposes during dramatic play; and sensory play that included tasting as well as splashing and touching the water.

Herrington and Lesmeister (2007) state that it is important to include elements that give children a chance to create and manipulate and refer to this as “chance criterion.” Water is one of these elements and the children in this study used water in many different ways and extend our understanding of the role of water in children’s learning through play. For example, creative thinking through the mixing of soil and water and the language that such an activity might support (sticky, wet, mucky, dirty); the feel of water and the ways in which it moves; the uses of water; and an understanding that it is essential to all living things.

Children’s Interest in Features of the Built Environment

The built environment was a theme that also emerged strongly from the data. Five sub-themes were identified: paths and gradient; wood construction centre; climbing frame; fencing and the sandbox.

Paths and Gradient

Engaging play spaces make the most of changes in the gradient to create spaces that invite exploration. Pathways maximize access from one area to another of the outdoor play space enabling children to explore the outdoor play environment with ease. The gradient of the pathways provides children with opportunities to watch others play from a height as well as enabling children to climb up or run down the pathways. In short, pathways that undulate over mounds or inclined embankments prompt children to explore (Walsh, 2016). This study
illustrates the ways in which children in this study enjoyed viewing things from above – climbing to the top of the hill to view what was going on around them in their play space. Additionally, the children in this study identified that they enjoyed running up, running down and rolling down the gradient (hill) in their play space. Fjortoft (2004) and Herrington and Lesmeister (2006) confirm the importance of varied topography within children’s play spaces for their motor development.

The research of Herrington and Lesmeister (2006) illustrates the importance of pathways in connecting the areas or zones within the play space but also the role of pathways in influencing the ways in which children use and understand the space. (p.69). Pathways within the play space in this study certainly gave children access to different parts of the natural elements such as the bushes and flowers, however, the children were also observed using the pathways for running and chasing (large motor play) and as ‘roadways’ for episodes of dramatic play with cars and trucks. So, while the pathways played an important part of connecting one part of the play space with another, the pathways were also part of the play environment that included episodes of dramatic and pretend play.

**Wood Construction Centre**

Rather than being too prescriptive about what activities should occur in a play space, spaces should accommodate some flexibility of usage (Walsh, 2016). The outdoor wood construction centre at the Beaver Childcare Centre was just such a space. This area provided ‘open endedness’ and ‘challenge’. The pieces of wood (of various sizes from small to large) allowed the children to create and design the space to meet their needs – giving children the opportunity to use their imaginations to plan, problem-solve, develop perseverance and cooperative skills. Herrington and Lesmeister (2006) refer to this kind of space as providing
flexibility for the children or meeting the need for challenge in children’s play and play spaces (p.74).

The children in this study were observed finding ways to move large, heavy pieces of wood to create and construct; they climbed on and up logs of wood; walked across the logs learning and practicing their balance; they climbed the structures they built and leapt off of them.

The research of Burke (2007), Clark (2007), Merewether (2015) as well as Norðdahl and Einarsdóttir (2015) indicated children find it important to have spaces that they can use for pretending and personal and social interaction. These spaces are often referred to as “closed spaces, private spaces, secret spaces or nests.” While in the wood construction centre the children in this study used wood to construct just such spaces – forts.

Climbing Structures

NAEYC (2014) states that a quality outdoor play space for young children includes both natural and manufactured materials (p. 29). They mention “climbing structures” in their description of a manufactured material. The climbing structure was important to the children in this study. This piece of built equipment was a space where children would engage with others in pretend play and a space that the children enjoyed climbing to take photographs of their surrounding environment. Like the gradient it offered a vantage point from which to view what was happening below. Neil (a child-participant) described the climber as a place where he would play with his friends and identified the climbing structure as his favourite spot from which to take photographs. This observation is confirmed by Clark (2010), Fleet and Britt (2011), and Merewether (2015) whose research confirmed the importance of providing children with a bird’s eye view of their playground space. Additionally, children in this study challenged themselves by climbing the structure, using the slide and creating forts underneath the structure.
Fences and Barriers
Boundaries and fencing round and in play spaces tend to make them feel segregated from their surroundings (Walsh, 2016). The research of Merewether (2015) suggests children are very interested in seeing what is going on outside the outdoor play space and in that study children would stand atop structures that allowed them to see over the fences surrounding their outdoor play space. This was also observed in this study – the children were very interested in seeing what was happening on the other side of the fences and barriers and they took many photographs of the fencing and barriers. The photographs captured these barriers from many perspectives – the fence at the entrance of the playground; the barrier at the top of the climber; and the fence at the top of the hill.

The research of Clark (2007) revealed that the participant children in that study identified the fence in their play space as an element they wanted changed and suggested that the fence appeared to “cage” them in (p. 78). In Norðdahl and Einarsdóttir’s (2015) study, the children indicated that the fence was a missing element within the play space that they would like to have for security reasons. However, in this study the children made no negative comments about the fencing and barriers and seemed to view them as a ‘natural’ part of their outdoor play environment.

Sandbox
Sand is a material that when dry can be mounded, poured and measured and when wet it can be molded, shaped and carved into a pretend world. Sand has tactile qualities and is valued for its cognitive and social benefits. In sand play children can learn important concepts for example mathematical principles relating to mass and capacity when they pour and measure the sand (Jarrett, French-Lee, Bulunuz, & Bulunuz, 2011). Isenberg and Jalongo (1997) and White
(2008) suggest that sandboxes encourage various types of play with an open-ended material in a social setting. Herrington and Lesmeister (2007) state that the sand box is a messy zone that gives children the chance to construct and create. In this study, the children were observed playing in the sandbox pouring, measuring and building. For an example, the children poured sand through and into industrial plumbing pipes. They used spades to dig the sand and to fill toy trucks that then carried the sand from one side of the sand box to the other where it was used to build. The children were observed using water in the sandbox. This study confirms that sand box play engages children in problem solving, dramatic/creative play, mathematical concepts and negotiation in social interactions.

Play Materials in the Environment

Play materials in the environment was a theme that emerged from the data. Two sub-themes were identified: aesthetic materials and play materials

Aesthetic Materials

While play materials are important for children to enact upon their play spaces in ways that give them the ability to control and manipulate materials of their play spaces aesthetic materials are not intended to be used for a particular purpose. Wind chimes are just such an aesthetic material. The research of Spencer and Wright (2014) suggests quality play grounds should include wind chimes as a decorative element that can add visual and auditory interest. (p. 33). The children in this study took many photographs of the wind chimes in their outdoor play space and identified that they liked the sound the wind chimes made.

Play Materials

In children’s outdoor play space play materials are particularly important in sand, water and gardening activities. For example, tools used in these areas might include buckets, spades,
sieves, diggers, lorries, trucks, pots, spoons, rakes, watering cans, buckets, hoses/pipes etc. It can be argued that it is through such tools or play materials that children are able to enact upon their world. For example, children can figure out how things work, build muscle control and strength (eye-hand coordination), use their imaginations, solve problems and learn to cooperate with others (sharing toys and play materials).

Spencer and Wright (2014) confirm that “wheeled toys” are toys that support gross and fine motor development as well as pretend imaginative play. The children in this study were observed not only using cars and trucks in the sand box but also pushing them through the garden and on the pathways of the outdoor play space. The children engaged in pretend play with trucks using them to carry a range of objects around the playground.

The pails and shovels were used in the sand box, gardens and in the wood construction center. It was clear from observations that these particular objects were very important to children’s play. They used spades to dig, move earth, sand and small rocks. The buckets were used to carry water, sand, small rocks and berries.

**Missing Elements of the Outdoor Play Environment**

The theme of missing elements of the outdoor play environment focused exclusively on aspects of water and water-play. The research of Beasley (2015), Norðdahl and Einarsdóttir, (2014), and Nedovic and Morrissey (2013) indicate children enjoy having water in their play space whether it is in the form of rain, snow, waterfalls or ponds. The children in this study confirmed the importance of water in their outdoor play spaces. They also identified that they would like to have features such as a water park, a water slide and aquarium/vivarium as part of their outdoor play space – elements that were missing from this particular childcare centre.
outdoor play space. This suggested that the children engaged in activities outside of the childcare centre with their families that included water parks, aquariums and water slides and that these obviously enjoyable features of water play and vivarium where fish, aquatic insects and aquatic plants could be observed were viewed by the children as missing from their childcare outdoor play spaces.

**Implications and Suggestions for Practice**

The findings of this study have important implications for the design of children’s outdoor play spaces. Preference for the natural environment was clear from the children’s photographs – over 50% of the photographs taken by the children were of the natural environment. This preference was also noted in the children’s conversational interviews and in the researcher’s field notes. Not only did the natural environment offer children opportunities to challenge their motor skills through climbing, running, jumping and chasing but it also provided many opportunities for children to explore the natural environment through their senses. For example, the children touched and smelled flowers and plants; tasted berries; touched the textures of rocks and ground cover; observed cloud formations; and, listened to wind chimes.

The children indicated that they enjoyed these open-ended sensory experiences, which suggests the importance of designing children’s outdoor play spaces with rich, thoughtful natural elements that capture and draw children’s attention to the richness and diversity of nature. Bento and Dias (2017) write that attitudes of respect and care for nature and the environment are more likely to emerge if a sense of belonging and familiarity towards nature are promoted from an early age.

The study findings have additional implications for the design of young children’s outdoor play spaces. While children (the users of these outdoor play spaces) offered important insight into their preferences for the natural environment, they also identified the importance of
including elements of the built environment (paths/gradients, climbing frames) and materials like wood, rocks, sand, gravel and water that support children’s efforts to control their play space and change the play surroundings to suit the needs of their play. These elements are considered valuable components of a quality mixed-zone outdoor play space that supports children’s development and learning (Herrington & Lesmeister, 2007) and should be considered in the design of children’s outdoor play spaces.

This study suggests that children are very capable of sharing their thoughts about their preferences for elements of their outdoor play spaces. Much research has discussed the role of parents and early childhood educators as controllers of children’s actions and in setting the boundaries for children’s outdoor play spaces and behaviours (Harden, 2000), however, this study illustrates the need to examine and understand the role of children as decision makers and the role they can play in participating in and contributing to the design of their outdoor play spaces.

Limitations of the Present Study

While the findings of the current study provide evidence that children are capable of sharing their preferences about their outdoor play space, this study has limitations that need to be recognized. First, this study was small consisting of only four children at one specific child care center with a mixed zone outdoor play space. While the number of participants is consistent with similar qualitative research approaches that are designed to allow for a rich in-depth exploration of the participants experiences and preferences, the scope of the findings is limited and cannot be generalized.

Additionally, the study occurred in the summer months. It is possible that the children’s engagement in and preferences for elements of their outdoor play space may be linked to the
seasons (i.e., interactions with and preferences for the outdoor play space in winter may be very different from the interactions with and preferences for the outdoor play space in summer).

While the childcare center did represent the linguistic and cultural diversity of the Western Canadian city within which the study took place, the childcare centre was in an affluent area and may not represent the experiences and preferences of children in childcare centres in less privileged neighbourhoods.

Finally, while efforts were made to give children opportunities to freely voice their preferences regarding elements of their outdoor space, an unequal adult—child power relationship exists that is complex and difficult to negotiate. Hill (1997) writes that the challenge is how best to enable children to express their views to an adult researcher and to maximize children’s ability to express themselves at the point of data-gathering (p. 180). However, the concept of childhood in Western adult society often means that children have to conform to adult expectations and may fear adult reaction to what they say.

**Strengths of the Present Study**

Despite the limitations of this study there are also a number of strengths that helped capture a rich in-depth understanding of children’s preferences for their outdoor play space. Firstly, while there may be an unequal adult—child power relationship that is complex and difficult to navigate, this study incorporated participatory research methods that provided opportunities for children to express themselves in matters which affect them. Specifically, providing children with a visual method (photography) for capturing important elements of their outdoor play space and having them discuss (conversational interviews) what the photographs showed and why they decided to capture a particular image/element of their outdoor play space provided the children with a way to independently express themselves.
Further, photographs taken by the children provide evidence that children are able to powerfully represent their perspectives on elements of their outdoor play spaces. The conversational interviews during which the children explained or discussed images they had captured, however, were key to understanding what was of importance to the child in the photographs. For example, in a discussion with Neil (p. 49) regarding a photograph taken of the space underneath the climbing frame, he revealed that he had observed a spider in that space in the past and that is why he took the photograph. Thus, this study illustrates that children’s photographs (one of the methods used in this study) combined with conversational interviews can give valuable information on children’s perspectives on their outdoor play spaces.

This research study makes a contribution to the current literature on children’s outdoor play space by capturing children’s preferences for elements of their outdoor play space. The current literature that explores children’s outdoor play and outdoor play spaces focuses on the benefits of outdoor play for children, however the findings of this study indicate that children can ‘voice’ their preferences for elements of their outdoor play space. This study clearly demonstrates the possibility of research that is done with children rather than research that is done to children.

Finally, the findings from this study can be shared with those who design early childhood outdoor play spaces, early childhood educators, researchers and other adults who work with young children and can inform decisions regarding what elements to include in children’s outdoor play spaces.

**Directions for Future Research**

There are several possibilities for future researchers to build on the findings of this study and contribute to the literature on young children’s preferences for outdoor play spaces. This
study provides an understanding of the perspectives of a small group of children. By conducting
the study with a larger population of children across a range of childcare centres, including
childcare centres in less affluent urban and rural neighbourhoods, further insight might be gained
into the ways in which children from diverse backgrounds and experiences view outdoor play
spaces. The inclusion of different neighbourhood settings would allow for comparisons between
children’s preferences and help fill the gap of the missing voices of the children.

Future researchers may ask the same research question as the one asked in this study
(what are children’s perspectives of their outdoor play space?) but design a longitudinal research
study over the space of a year to gather data at different times of the year. This can be important
in a country like Canada in which not only are the seasons dramatically different but each season
is different in different parts of this huge country – hot humid summers in central Canada, long
rainy winters in the Pacific Northwest, long frigid winters in the North, central and eastern
Canada.

Finally, while this study addressed children’s perspectives on elements of their outdoor
play space, the researcher’s observations identified the many ways in which these children
engaged with elements in their outdoor play space – future studies might focus on children’s
perspectives on their outdoor play activities and the ways in which elements of the outdoor play
space support and facilitate children’s play preferences.

**Conclusion**

The aim of this study was to access children’s preferences for elements of their outdoor
play space. Four children aged 3- to 5-years-of-age enrolled in a childcare centre participated in
the study, sharing their preferences through photographs and conversational interviews. The use
of photographs and conversational interviews enabled the children to identify elements of their
outdoor play space that was important to them. The findings from this study revealed four categories of elements of outdoor play spaces preferred by young children, Natural Environment, Built Environment, Materials in the Outdoor Environment and Missing Elements in the Outdoor Play Environment.

Schiller and Einarsdottir (2009) write that while there is an increasing recognition of children’s right to be heard in issues that affect them, there are practical problems regarding finding ways for children to participate in research that is relevant, engages their interest and is meaningful. This study illustrated that children’s perspectives can be accessed through creative research methods that match children’s competence, knowledge and the context of the study. In this case, photography using easy to use digital cameras and conversational interviews in which the role of the researcher was primarily as a listener.

The preferences shared by the children expand current research by capturing children’s voices regarding their preferences for elements in their outdoor play spaces. This study provides a framework for gaining insight into children’s outdoor play space preferences. Specifically, most of children’s outdoor play spaces, like the setting for this study, are designed. Maybin and Woodhead (2003) write that there is nothing natural about children’s outdoor playgrounds – these are human creations designed to regulate children’s lives (p.56). The findings from this study regarding children’s preferences for elements of their outdoor play space can inform the design of their outdoor play space.


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Appendix A: Parent Information Sheet

Children’s Perspectives of their Outdoor Play Space

My Name is Laurel Donison I am a graduate student at UBC taking the Masters of Arts in Early Childhood Education program. I have been an Early Childhood Educator for 5 years. Within this time I have had the chance to work in Child Care Centers with a range of different age groups. My experiences with the children have influenced me to become interested in exploring children’s voices within research.

I believe that outdoor play spaces are essential to children’s healthy growth and development. These two interests, outdoor play spaces and children’s perspectives on their outdoor play spaces, will be the focus of this research project; Children’s Perspectives of their Outdoor Play Spaces.

This research project will involve interviews with the children, observations of children’s engagement in outdoor play and children’s photographs, drawings and paintings of their outdoor spaces and outdoor play activities.

Through this project I hope to learn more about what children think of their outdoor play spaces through methods (photographs, drawings, paintings and conversations) that allow them to express themselves. The data generated will come directly from the children. Overall the aim of this project is to:

- Discover/develop methods for listening to young children
- Empower children by listening to them and reporting their opinions and ideas
- Learn about what the children’s preferences are regarding outdoor play spaces and activities that occur in outdoor play spaces
The findings from this study can potentially benefit children, other professionals working with young children, as well as designers who plan play spaces for children. At the end of this study I hope to share the findings with both the ECE professionals working with the children and any interested parents or caregivers within the center.

I am working under the supervision of Dr. Margot Filipenko, Director of Early Childhood Education in the Faculty of Education at UBC. Any questions regarding the study can be addressed to;

Dr. Margot Filipenko at XXXX@XXXX

or:

Laurel Donison at XXXX@XXXX
Appendix B: Director Consent Form

Director of University of British Columbia Child Care Services Consent Form
Children’s Perspectives of their Outdoor Play Space

Principal investigator: Dr. Margot Filipenko
Department of Language and Literacy Education, UBC

Co-Investigator: Laurel Donison
Early Childhood Education, UBC

PURPOSE

The purpose of this study is to investigate Preschool children’s perspectives of their outdoor play spaces in a childcare setting. Through this study we hope to gain a deeper understanding of young children’s perspectives on their experiences in their outdoor play spaces and how best to design and support children’s activities in outdoor play spaces.

RE: Permission to Conduct Research Study

Dear Darcel:

I am writing to request permission to conduct a research study about children’s perspectives of their outdoor play space at UBC child care centers. I am currently enrolled in the Masters of Arts in Early Childhood Education Program at The University of British Columbia in Vancouver BC. I am in the process of writing my (Master’s Thesis). The study is entitled Children’s Perspectives of their Outdoor Play Space in a Child Care Center.

I hope that you and UBC child care services will allow me to recruit (Children aged 3-5 years) from a UBC Child Care center to participate in the study and share their perspectives of the outdoor play space that is available to them. Due to the nature of the study, I hope to recruit (children ages 3-5 in a preschool program that have access to an outdoor play space available to them in which the engage in as part of that daily routine.) These children will be asked to take pictures and create visual artifacts that will share their perspectives of the outdoor play space in which they engage in everyday. Interested children, who volunteer to participate, will be given a consent form to be signed by their parent or guardian and an assent form to be signed by each child. Once permission from the guardian and child has been returned to the primary researcher at the beginning of the research process the children will then be given a camera during outdoor
time to capture what they feel is important or unimportant aspects of their outdoor play space. If approval is granted, children who are participants will take pictures while in the outdoor play space and speak about the pictures they have taken or visual artifacts they have created to share their perspectives about the outdoor play space with the co-investigator.

While the children are in the Outdoor Play Space they will be given the opportunity to share their perspectives by creating visual artifacts or taking pictures that reflect their ideas and opinions about the outdoor play space. The data collection process should take no longer than (3 weeks). The data collected will be used for the thesis project. Results of this study will remain absolutely confidential and anonymous. Should this study be published, only children who have given permission to share their perspectives results will be documented. No costs will be incurred by either your center or the individual participants.

Your approval to conduct this study in a UBC Child Care Center will be greatly appreciated. I will follow up with a telephone call and would be happy to answer any questions or concerns that you may have at that time. You may contact me at my email address or the PI Dr. Margot Filipenko at:

Department of Language and Literacy Education, UBC

If you agree, kindly sign below. Alternatively, kindly submit a signed letter of permission on your institution’s letterhead acknowledging your consent and permission for me to conduct this survey/study at your institution.

Sincerely,

Margot Filipenko and Laurel Donison

Approved by:
Appendix C: Parent Consent Form
Parent/Guardian Consent Form
Children’s Perspectives of their Outdoor Play Space

Principal investigator: Dr. Margot Filipenko
Department of Language and Literacy Education, UBC

Co-Investigator: Laurel Donison
Early Childhood Education, UBC

PURPOSE

The purpose of this study is to investigate Preschool children’s perspectives of their outdoor play spaces in a childcare setting. Through this study we hope to gain a deeper understanding of young children’s perspectives on their experiences in their outdoor play spaces and how best to design and support children’s activities in outdoor play spaces.

PROCEDURES

Your child is invited to participate in this research study to help us better understand children’s perspectives of outdoor play spaces. Through this study we want to learn about children’s beliefs and perspectives on their outdoor play spaces and how to best design and support children’s activities in outdoor play spaces. Through this study we want to access children’s voices in order to inform how best to design and support outdoor play spaces that meet children’s interests and needs.

We are asking you to give consent to your child to participate in this study because s/he is enrolled in the University of British Columbia Daycare Centre for Three- to Five-Year-olds. Participation in this study involves:

- Invitations to record ‘favourite’ and ‘least favourite’ activities and outside play equipment using either a digital camera or art materials;
- Permitting us to examine your child’s artefacts elicited to reflect their ‘favourite’ and ‘least favourite’ activities and outside play equipment;
- Participation in informal interviews around your child’s artefacts.

DURATION

1. Prior to the collection of data, the co-investigator Laurel Donison will attend the childcare centre to develop caring and respectful relationships with the children approximately 2 weeks;

2. An examination of the child participants’ artefacts will be conducted by Dr. Margot Filipenko and the co-investigator Laurel Donison
3. Informal interviews to elicit information on each of the child participant’s artefacts will be audiotaped. Approximately 5 minutes per artefact.

CONFIDENTIALITY
Your child’s identity will be kept confidential. Participants will not be identified by name in any reports of the completed study. Any quotes used during presentations will remain anonymous. Pseudonyms will be used in all reports and presentations. Any images captured of children who are not participants in the research study will be obscured when the photographs are developed. Blurring the children’s faces will allow the confidentiality of the non-participant children to be protected. If your Child is a participant in the study they will only be identifiable in pictures if you give permission by signing the consent for children to be identified in pictures, on page 4 of this document. If your child is a participant in the study and you do not want them to be identified in pictures their faces will be blurred to ensure their identity is kept confidential. The children’s photographs will be analyzed as part of the research project and may be published in the final report. Data will be stored on a password-protected computer. Children's Visual artifacts, audio recordings and transcripts of the audio recordings will be kept in a locked filing cabinet in a locked office. All electronic files and devices containing personal information about an identifiable individual collected for the research purpose will be encrypted to protect it from unauthorized access. A password will be used to encrypt information. Only the PI and Co-investigator will have access to the password.

Data will only be made available to the co-investigator or investigator. Paper data will be stored in a locked filing cabinet, within an alarmed office in the Faculty of Education at UBC. The audio recordings will be stored on a password protected hard drive in the Faculty of Education. All information will be destroyed five years after the work is published.

DISSEMINATION OF RESEARCH

The results of this study will be published in publications, journals and presented at scholarly conferences. The data used for these publications, journals and scholarly conferences will include the analysis and the summary of the data from the children’s artefacts and informal interviews. Short excerpts from the informal interviews or artefacts (with all identifying information removed) may be used to illustrate particular themes found in the data.

INQUIRIES or CONCERNS

You are not waiving any legal rights in signing this consent form for your child. If you have any concerns about your child’s participation in this study, you may contact Dr. Margot Filipenko at the University of British Columbia.

Does my child have to be part of the research study?

Your child’s participation in this research study is completely voluntary. Your child can refuse to be part of the research, or choose to leave the study at any time, for any reason. Your child can still be part of taking pictures, creating artifacts and engaging in informal conversations around their experience in the outdoor play space even if you or the child do not want to be part of the research study. You and or your child can take as much time as you need to decide if you would like your child to be a part of this project.
Are there any risks of participating in the project?
There are no known risks of being part of this research study. The research team will not ask you or your child to participate in any form of photography, art or informal interviews without permission from you and your child to agree to participate in the study. However, as stated above your child can still be part of the research activities i.e., photographing, creating artefacts and engaging in information interviews around their experiences in the outdoor play space even if they are not part of the research study – the artefacts will be passed to you, the parent or caregiver, and the informal interviews will not be audiotaped.

Who Can I Contact about my Rights as a Research Participant?

If you have any concerns or complaints about your rights as a research participant and/or your experiences while participating in this study, contact the Research Participant Complaint Line in the UBC Office of Research Ethics at 604-822-8598 or if long distance e-mail RSIL@ors.ubc.ca or call toll free 1-877-822-8598.
Parent/Legal Guardian Permission for Child’s Participation in Research

Children’s Perspectives of their Outdoor Play Space

I have read this form and the research study has been explained to me. I have been given the opportunity to ask questions and my questions have been answered. If I have additional questions, I have been told whom to contact. I give permission for my child to participate in the research study described above and will receive a copy of this Parental Permission form after I sign it.

I consent/I do not consent (circle one) for my child to participate in this study.

Please check the box and sign:
   [ ] I consent to my child having his/her visual artefacts (photographs and drawings/paintings) examined for purposes of this study
   [ ] I consent to my child engaging in informal interviews exploring the content of his/her visual artefacts (photographs and drawings/paintings)
   [ ] I consent for the data of this research to be presented in publications and at scholarly conferences.

I consent to my child being identified in photographs used for this study YES/NO (please circle and initial) [ ]

Parent/Legal Guardian’s Name (printed) and Signature:

Your Name (please print): ________________________________

Signature: ________________________________ Date: __________

Name of Child Obtaining Parental/Legal Guardian Permission

Name: ________________________________ Date: __________
Appendix D: Assent Form

Children’s Perspectives on Outdoor Play Spaces: Assent Script

We are trying to learn about your favorite and least favorite outdoor play activities, equipment and outdoor spaces. We think that children can help us understand why they like some outdoor play activities, equipment and play spaces and why they don’t like some outdoor play activities, equipment and play spaces.

We are going to ask you to take photographs and draw or paint outdoor play activities and equipment or spaces that you like and we are going to ask you to take photographs and draw or paint outdoor play activities, equipment and spaces that you don’t like.

When you have taken a photograph or drawn or painted a picture, we will also ask you to tell us what the picture is about and whether you like or don’t like the activity, equipment or outside play space in the picture. It will take about 5 minutes.

We’re also going to audiotape you while you are talking about your photographs or drawings. Is that okay? Can we record you? If you don’t want us to, we won’t, it’s completely up to you.

Would you like to hear some more about how to use a camera?

[If yes, then:] Well, we’ll need to discuss how best to care for and share the digital cameras. We have 5 cameras so we will need to take turns using a camera. You already know how to use a waiting list so I’ve set-up a waiting list for those who want to use the camera. Don’t worry everyone will get a turn. Digital cameras are easy to use, watch carefully [demonstrate how to use the camera].

We would like to understand what children like you like about outdoor play spaces and what children like you don’t like about outdoor play spaces so that teachers know what you like to do in outdoor play spaces and what you don’t like to do in outdoor spaces.

You get to decide whether or not you want to do this, and no one will be mad at you if you decide not to. Just tell me that you would like to quit.

Is there anything else you’d like to know? If you don’t have any questions now, you can ask later?