FOLLOWING CHILDREN'S LINES OF FLIGHT:
POSSIBILITIES FOR A PEDAGOGY OF LISTENING

by

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

DOCTOR OF PHILOSOPHY

in

The Faculty of Graduate and Postdoctoral Studies

(Curriculum Studies)

THE UNIVERSITY OF BRITISH COLUMBIA

(Vancouver)

OCTOBER 2013

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ABSTRACT

This case study examines young children’s ideas and narratives as these emerged through a project about the forest outside the children’s early childhood classroom. I followed the trajectory of the children’s learning processes by participating with them in various experiences in the forest over 16 weeks. The theoretical inspirations for this study include the postmodernist work of early childhood researchers Gunilla Dahlberg and Peter Moss; selected concepts of poststructural theorists, Gilles Deleuze and Félix Guattari; and the philosophical foundations of the Reggio Emilia approach to early childhood education. The children, teachers, and I visited the forest on numerous occasions. There the children generated hypotheses about phenomena, developed theories about their discoveries, and created original stories. Their ideas, concepts, narratives, and interactions became the foci of my study. The specific questions of this inquiry include: What happens when researchers and teachers follow children’s ideas and narratives through the philosophical lens of Deleuze and Guattari? How can a pedagogy of listening be understood as a way of co-constructing curriculum with children? What is the impact of a pedagogy of listening on early childhood curriculum and teaching? How can a teacher support the creation of learning contexts that will enrich and extend children’s thinking and learning? By employing a pedagogy of listening and pedagogical documentation, both taken from the practices found in the pre-schools of Reggio Emilia, I was able to follow what Deleuze and Guattari call “lines of flight,” the free movements of thought created by the four-year old participants in the study. I describe three events demonstrating how the children’s learning evolved and transformed as they encountered landscapes, materials and diverse perspectives. Throughout my analysis of these events, Deleuze and Guattari’s concept of the rhizome provides an illuminating metaphor for understanding children’s thinking as generative, interactive and dynamic. My findings
provide powerful justification for an emergent curriculum based on children's individual and collective interests. My study also addresses the role of the teacher in early childhood education, emphasizing a pedagogy of listening as a valuable tool for critical reflection on teaching and learning.
PREFACE

This dissertation is an original work by the author, Bo Sun Kim. The fieldwork reported in Chapters 1-5 was covered by UBC Ethic Certificate number H11-00305.
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ACKNOWLEDGEMENTS

I want to express my gratitude to the children who shared their wonderful ideas and stories with me and allowed me to be part of this incredible journey.

My heartfelt appreciation goes to my supervisor Dr. Linda Farr Darling for continuous support and encouragement throughout the process of this dissertation. Without her persistent help and a warm support this dissertation would not have been possible. I have learned so much from her and cannot thank her enough for her generous support. I have been fortunate to be her student.

I also would like to show my greatest appreciation to my committee member Dr. Karen Meyer. Her encouragement and suggestions were invaluable, and helped me work through my ideas.

My sincere thanks also go to my committee member Dr. Ann Anderson. Her constructive comments were an enormous help for me to deeply engage with my work.

I would like to offer my special thanks to Dr. Sylvia Kind for giving me an opportunity to do the project work in the children’s centre and providing me all support during this project work.

Lastly, I would like to thank my parents and sisters for so much love and encouragement. And most of all for my loving and supportive husband, Peter who has always been there for me.
DEDICATION

To my daughter Ella who continually inspires me to be a better listener…
Whenever I look back on my childhood, I think about my grandmother and her many stories. Although my childhood experiences have receded into the dim past, the stories my grandmother had told me are still vividly retained in my memory. Amongst her many stories, I especially like the ones about my mom and my aunt when they were children, as they surely had different childhoods from the one I had. Whenever I had conflicts with my mother, my grandmother told a story about her. I believe that gesture was my grandmother’s way of creating a path for reconciliation between my mother and me. Particularly, I remember one story around the Korean War, which is a national tragedy of an enduring pain:

*When the Korean War broke out in 1950, my grandfather was a policeman who had to be away from his family to fight with North Korean soldiers. Thus, my grandmother alone had to take care of her two daughters in South Korea: my aunt who was six years old and my mom who was three years old. During the war, families of soldiers and policemen were killed when they were discovered; so my grandmother had to instruct my aunt and my mom not to tell anyone that their father was a policeman, but to say instead that he was an egg seller. One day, during the war, in order to escape from the battleground, my family had to cross Han River where North Korean soldiers set up an inspection booth and checked people’s identification to determine if they were allowed to cross. Grandmother had hoped that the North Korean would ask questions of either herself or my aunt, who was still young but had been prepared to answer, so that they could safely pass the inspection. However, things didn’t happen as they wished. When it was my grandmother, my aunt, and mother’s turn, a North Korean soldier pointed to the three-year old, my mother, to answer the questions and demanded, “What does your father do for a living?” I believe that the North Korean solider might have thought a three-year old child couldn’t trick him. My grandmother said it was a life or death moment. Their lives were in the hands of a child. All eyes were turned on the child. Grandmother told me she was scared to death at the moment. Yet, she had no choice but to trust her youngest daughter. My mom’s answer was “egg-seller.” A three year old saved her family including herself.*

Each chapter in this dissertation is preceded by a Provocation. I include them to invite the reader into this study, by foregrounding children’s ideas and stories. The provocations carry images of competent children. Similarly, in Reggio schools, educators use provocations to encourage interest, involvement, creativity, and sustained shared thinking in young children. I use provocations in my study to unsettle the reader’s preconceptions related to the image of the child, the role of the teacher, and processes of teaching and learning.
My mother says she only vaguely remembers the war since she was so little at that time. Yet, the role she played on that day was not small. It was extraordinary. I feel so proud of my mother and honour her whenever I think about the story. This little three-year-old child has always been an inspiration and helps me to believe in the competence and potential of every child, a child whom I would like to embrace and show as a strong and capable being in our community. Through my study, I intend to reveal children’s competence and uniqueness as they make meaning through their stories and conversations, the narratives of their lives.
CHAPTER ONE

INTRODUCTION: CHILDREN’S PERSPECTIVES

This dissertation is about listening to children. So, I will begin with a conversation between two young girls who focus their attention on caring for a tree they have discovered in the forest. Their exchange reveals that both children are captivated by the natural world and by fantasy, and in this brief instance of storytelling have not distinguished between the two.

Sarah: These are bad guys. Bad moss, they are bad for the tree. If you don’t take them off, they grow on to the tree.
Ella: Then it makes the tree really, really sick, right?
Sarah: And there is magic stuff inside the tree. These are good for the tree.
Ella: Yeah, we have magic good dust for the tree to make it strong and better. And I will use my magic wand to trim the tree little bit, so the tree can grow taller and bigger. That’s why this tree is this much big. We shouldn’t cut down the big part of the tree.

Figure 1.1. After a conversation about moss, Sarah and Ella are working hard to take the moss off the tree.

Figure 1.1. After a conversation about moss, Sarah and Ella are working hard to take the moss off the tree.
1.1. Introduction and Premises

I have always wanted to be a teacher from the time I was a child. Both my father and mother have five siblings and my first job with children was babysitting my younger cousins when our whole families spent holidays together. I had read books for them, took them to bicycle rides, and played games with them. I enjoyed the interactions that I had with them, as I seemed to learn more from them, rather than the other way around. It was through this experience that I fell in love playing with young children and made me realize my passion for early childhood education. Then, I became a preschool teacher.

In my practice as an early childhood educator, I have often encountered teachers and texts that take a developmental approach to children’s learning. However, I always believed that childhood is more than just passing through developmental stages. With inspiration from postmodern perspectives, I began to reflect on my everyday pedagogical practice from a critical perspective, and began to problematize the discourse many believe reflects truths about children. I have been developing an understanding of how and why certain early childhood understandings about education, curriculum and the child are marginalized within mainstream educational discourse and started to seek for ‘other’ ways of knowing and being with children.

As a researcher, as a student, as a teacher and as a mother of a young child, I want to create a space where children’s autonomy is appreciated and where children’s agency and social roles are respected and embraced.

My research explores young children’s ideas and narratives that emerge within a learning group. My premise is that these ideas are not confined to one child but move between the children in a pair or group, shooting in all directions, like a “rhizome,” continuing to make connections and developing in multiple ways (Deleuze & Guattari, 1987), forming a narrative
that belongs to the group and affects all who listen. It does not seem to matter who generates the first thought or proposes an initial hypothesis. Soon everyone owns the idea. As the children learn together, the narrative continues to evolve within the group. It often coalesces into a shared story with characters and actions that continue in its telling and retelling. In the brief conversation between Sarah and Ella above, the tree, bad moss, magic stuff inside, and what is good for the tree tell a narrative of “tree,” and how they should or should not act with their magic dust and magic wand embody the beginning of a story.

In my research, following the children’s ideas and narratives meant following ways they encounter the world—environmental surroundings, phenomena, events, ideas, or things that provoke their creation of ideas. As I listened to the children, there were many moments when I wondered how they created such wonderful ideas together and how these ideas emerged into shared narratives and stories. As a teacher, I value a learning group where children have opportunities to play and engage with ideas more deeply and in extended ways. My study documents these narratives and stories, which reflect children’s rhizomatic thinking, their learning and meaning-making processes. The narratives and stories that I present in my study are foreground for connections, relations, inventions, multiplicity, and experimentations that follow the many “lines of flight” (Deleuze & Guattari, 1987) the children create.

As such, I focused on a group of children. In my experience, I have found that children are generous and typically do not ask for or claim ownership of ideas. Children often say it is “our idea” or “our story.” Thus, it would be artificial or perhaps impossible to distinguish which idea belongs to whom, given the contagiousness of their ideas. My research focuses particularly on the roles of a group of children’s ideas and narratives in their learning processes.

Over the course of four months, I worked with a group of four-year-old children: Sarah, Ella, Tina, Hailey, Venice, May, James, Jason, Chris, Brian, and Scott (pseudonyms). In
particular, Sarah, Ella, Tina, and Hailey are the main protagonists in the study. These four girls have known each other since they were infants, and their friendships have become a strong link between them, influencing the ways they interact with each other—their sharing and exchanging of ideas, their learning and playing.

As an early child educator, I have observed ways children’s friendships influence group formations, as well as how and what a group learns. By working as a group, children develop the capacity for listening, collaborating, and negotiating. There are many fights, cries, and conflicts, as well as support and love for each other. Through these emotions and everyday interactions, children construct relationships and friendships, which become fundamental elements of their learning as a group.

Creating imaginary stories, sharing ideas, and inventing concepts are part of children’s lives. Their sense of wonder and unique interpretations when approaching the world show us, as teachers, a part of the world we may have missed or forgotten. If we are willing to be involved in children’s meaning making, we need to mingle with them in their groups, slow down our own thinking, and look at the world with them. When we are able to see the world with children, we find magical moments that otherwise may have eluded us. *Focusing on what a child is looking at is different from focusing on the child.* If we can see what children are looking at through their eyes, we become immersed in the world they are exploring. We can support children with our reflections on what children say and do. As the introduction to my study, the following vignette provides a window for you to “see” such an example of exploration with children as curriculum.

1.2. A Treehouse

It was one of those typical West Coast days in January, cold and rainy. After a stormy night, there were many tree branches down on the street as I drove to the children’s centre. I
thought we might have to cancel our plan of visiting the forest with the children due to the weather conditions. It would have been such a disappointment to the children! When I arrived at the classroom, the children were standing by the glass door, looking so excited about something outside in the centre’s backyard. I approached the glass door, curious to see what happened. I saw tree branches of all sizes had fallen on the ground. The children were excited about the unexpected presence of tree branches in their backyard. They shared the delights of what they were seeing. What came to me was a question: how could we respond to this unexpected event? Instead of cleaning up the yard, what could we do to sustain this excitement about fallen branches?

Teachers in the children’s centre had been exploring the nearby forest with the children since the previous September. They had been very sincere in listening to the children and supporting their meaning making and connections with the forest. The teachers knew the children always wanted to have a treehouse in their centre, just like the one they had seen in the forest. The teachers had become part of the learning group, looking and thinking alongside the children, and had decided to make a treehouse with the children. Teachers and children collected branches and sticks and constructed a large treehouse in the yard.

The treehouse vitalized the children’s outside play and brought different dynamics to it. It gave the children a different sense of the place and provoked the children to deeply engage with what surrounded the treehouse; the children discovered new materials, created new characters, and invented interesting stories and plays. The treehouse became a place for meeting and socializing. It fostered encounters, group interactions, and social relations. It became a central place for exploration, dialogue, transformation, and invention.

Throughout my study, remarkable things happened when children shared and explored ideas around the treehouse and around the forest project more generally. The children’s
imaginary stories, inventive ideas, and excitement around discovery were disclosed in many ways. By providing sensitive and provocative environments, the teachers helped the children to extend their ideas and deeply explore whatever interested them. Using listening as pedagogy, teachers became part of a learning journey, exploring unknown worlds side by side with the children.

What I find interesting in the photograph below (Figure 1. 2) is the two different treehouses in the backyard. They remind me of two contrasting ideas of curriculum. The precast treehouse, which you can see in any park or school playground, reminds me of standardized curricula with specific activities planned in advance that everyone follows, also with prescribed objectives and goals. The other treehouse, which the teachers and children built together, represents to me an emergent curriculum that is flexible and sensitive to children’s interests and desires. It holds unique stories of the children and teachers. In this case, the curriculum has emerged as the teachers followed children’s interests and ideas.

According to Wien (2008), emergent curriculum supports children. It begins with listening and following the minds of children. Wien (2006) also asserts that emergent curriculum can enfold teachers’ inquiries into how children’s interests and understandings can be stretched and deepened. Such inquiry goes beyond the early childhood classroom to encounters with environments that surround the children in their child-care centre.

In addition, Wien (2008) describes emergent curriculum as “building relationships with that which we encounter as we participate with children in knowing the world” (p. 6), because teachers and children work together as co-constructors in designing their learning. Thus, emergent curriculum is a way of teaching and learning that teachers participate in alongside children, exploring and experimenting with ideas and questions. Wien argues that the emphasis is different from the individual competitiveness of a standardized system. Emergent
curriculum demands group support and group thinking, “requiring teachers and children to think of others, to try to understand them” (p. 158). Wien (2008) states that a teacher of emergent curriculum is a researcher, “trying to grasp the children’s perspective and build from there, rather than starting with curriculum content” (p. 14). I believe that this way of learning and teaching brings to children a sense of belonging and allows them active participation in their learning processes.

![Figure 1.2. Two different treehouses in the backyard at the children’s centre.](image)

1.3. Children’s Participation in Early Childhood Research

Researchers are increasingly interested in children’s perspectives and recognize children’s right to participate in research itself (Christen & James, 2000; Lewis & Lindsay, 2000; Clark, Kjørholt, & Moss, 2005; Greene & Hogan, 2005). The notion of rights as participation has intersected with beliefs that children have to be involved in decision-making and that children
make a valued contribution to society (Kirby, Lanyon, Cronin, & Sinclair, 2003). This approach requires the conditions of time, adults willing to listen, and environments in which children feel safe and comfortable. It is always important to exercise care in interpreting what children are saying. When children are expressing views through visual and other media, adults need to ask children to provide their own interpretations of their work and not pre-judge the meaning behind their representations (Lancaster & Broadbent, 2003). Similarly, it is important to understand that children’s interpretations of words often differ from adults.

Unfortunately, in many cases, adults fail to recognize children’s capacities because they assess children from an adult perspective and sometimes create environments in which children are unable to express their views effectively (Clark, Kjørholt, & Moss, 2005). Therefore, we should consider different approaches to listening to children, approaches that go beyond listening as hearing only the spoken word (Rinaldi, 2006). Broadening our view of listening may help us understand listening as pedagogy and a way of researching life and culture (Clark et al., 2005; Rinaldi, 2006). This broader sense of listening opens up the question of the purpose of listening in a postmodern age.

1.4. A Problem with Early Childhood Educational Research

My three-year-old daughter asked me an interesting question when we found fountains while taking a walk in our neighbourhood: “Mommy, why are these waterfalls going backwards?” She looked so curious and excited when she encountered something unknown to her, the fountains. I almost said to her these are fountains, not waterfalls. Yet, when I realized that she asked me the question not because she wanted me to provide the right answer but to try to help her make sense of the phenomenon, I stopped myself and waited. I didn’t want to interrupt her thinking process by simply replying to her question. I didn’t want to respond to her in the way that oppresses opportunity, the opportunity to create her own theory; I chose listening over speaking. Not answering the question didn’t even bother her. She was too busy watching the waterfalls. The focus of attention shifted from my perspective to hers. When her mind was provoked by this encounter with the unfamiliar, she forced herself to think. She was thinking about why these waterfalls were going backwards. She observed the waterfalls for a while. Then, she shouted in a joyful and excited voice, “Mommy, I know why. They want to bounce. Look, they are bouncing!
Children’s lives are filled with diverse interpretations of the world and these interpretations constitute an integral part of children themselves. Piaget’s (1954) early, seminal work showed that children not only had thoughts and experiences worth knowing about, but these thoughts and experiences were different from the thoughts and feelings of adults, and that engaging with that knowledge has the potential to improve adult understandings of children’s experiences. Duckworth’s (1987) research on children’s ways of knowing the world posits that children assign and experience meaning in very different ways from adults. However, most research with children has focused on children as the objects of research rather than children as subjects, and on child-related outcomes rather than child-related processes (Greene & Hogan, 2005). Also, most research done in education is likely to focus on teacher practice, teacher perception, and program implementation with little attention for the child’s perspectives and understandings (Powell, Danby, & Farrell, 2006).

Yet in recent years, there has been increasing interest in understanding children’s perspectives on their own lives. In particular, childhood researchers influenced by social constructionist views are focusing attention on the social construction of childhood, on respecting children’s autonomy in their own learning, and on protecting children’s rights. Since the adoption of the Convention on the Rights of the Child by the UN General Assembly, there has been a significant increase in the attention paid to children as active participants in research that is aimed at discovering their capacities and preoccupations (Alderson, 2000; Landsdown, 2005). This attention differs significantly from the predominant approach in past years, which focused on promoting children’s development rather than respecting and protecting their rights. The new turn
is embedded in recognition that children are entitled to make decisions that have an effect on their lives, and in the related belief that children are social actors in their present lives (Landsdown, 2005). In other words, there has been a significant paradigm shift in conducting research with young children. The shift has involved repositioning children as the subject rather than object of research (Christensen & James, 2000; Cannella, 2002, Greene & Hogan, 2005).

In the last decade, researchers have also begun to articulate the extent to which children are social actors and meaning makers from the beginning of their lives. From an early age they are trying to make sense of their social life (Christensen & Prout, 2005). More researchers recognize this fact and are beginning to allow children to have more direct voice and participation in research (Mayall, 2000). Researchers in early childhood education have shown that young children are competent at “creating hypotheses, constructing theories, and envisioning possibilities for meaning making” (Chan, 2010, p. 40). As such, children have a right to live within an educational context where they feel legitimated (and supported) to represent their theories and interpretations.

Chan (2010) argues that the recently developed early childhood curriculum in Canada involves commitments to children’s participation. In the BC Early Learning Framework, children are viewed as active participants in their families and communities, and as holistic learners. I argue that children make significant contributions to the lives of families and communities, and acknowledge the importance of involving children in decision making and learning. Families and communities benefit when they hear, value, and respect children’s views (Government of British Columbia, 2008). Child participation in curriculum making is based on “an innovative model of the young child, in a new concern with young children’s rights as citizens and in new knowledge about the significance of young children’s early experiences” (MacNaughton et al., as cited in BC Early Learning Framework). Child participation is embedded in the BC Early Learning
Framework (Government of British Columbia, 2008). In this BC document, children are recognized as “capable and full of potential; as persons with complex identities, grounded in their individual strengths and capacities, and their unique social, linguistic, and cultural heritage” (Government of British Columbia, 2008, p. 4). Thus, children’s rights to be heard and to have their views taken into account are now emphasized in education policy and practice in the province.

However, according to Chan (2010), despite presenting this ideal of children as capable persons with the right to participate in decisions about their education, child participation in curriculum development has remained under theorized, and in classroom practice, participation emerges in a tokenistic manner (Hart, as cited in Chan, 2010). Chan argues that while children often appear to be given a voice, they actually have few opportunities to influence subject matter or the way of communicating it. They have few opportunities to express their own ideas. Thus, as a way to promote the idea of children’s participation in curriculum making, Chan asserts that we need new theories that would help us to think beyond tokenistic approaches to child participation.

Clark et al. (2005) also insist that educators need to find practical ways to develop services that respond to the “voice of the child” and recognize young children’s competencies. To date, little has been done to determine how children’s perspectives can be embodied into everyday practice to support children’s participation and to take their views into account in learning and decision making. Thus, this dissertation engages with issues concerning responding to the “voice of the children” in early childhood curriculum and practice. In particular, this study explores how teachers can provide a context where children’s perspectives are respected in learning, and where children’s participation can be promoted in early childhood curriculum and practice.
1.5. Purpose of the Study

According to many who study it, early childhood education has been caught up in a representational logic that centers adults as experts in the pedagogical planning process. Learning has been framed “as tameable: predictable and possible to plan, supervise and evaluate against predetermined standards” (Olsson, 2009, p. 118). However, acknowledging the important role of all relationships within the work of early childhood education, including relationships with children, shifts the emphasis from acquiring standardized skills and knowledge to involving everyone in a dynamic process of learning. This allows children to have many opportunities to participate in the design and enactment of their own education. Part of this shift is centered on the “pedagogy of listening” (Rinaldi, 2006).

Bringing the pedagogy of listening to a study focused on children’s narratives forms a natural, generative linkage between research and practice. Narratives emerge through interactions and conversations and listening provides rich and deep understandings of children’s perspectives and meaning-making processes. Listening to children in order to hear their views and appreciate their understandings is an important way of illuminating our understanding of curriculum in practice. In this respect, the close examination of children’s narratives uncovers the complex and dynamic relationships between the children, between the children and the teacher, and between the children and environment. It allows us to see children’s meaning making as they search for sense in their encounters.

In the present study, I followed the trajectory of children’s learning processes through participating in various experiences with a group of four-year-olds over a four-month period. I wanted to explore what Deleuze and Guattari (1987) call rhizomatic thinking and learning processes, those processes that feature spontaneity, multiple connections, and emergent intersections of thought. My case study explores the children’s thoughts and narratives as
learning processes. As well, I investigate the teachers’ roles as co-constructors who examine children’s developing understandings and aesthetic experiences while they engage in a project around and within a forest.

The forest project I examined in my study began with teachers noticing that the children had created special connections and relationships to some places they had discovered in the nearby forest. These encounters within the forest became a starting point for further study and exploration. Over the four-month period, the children and teachers visited the forest on numerous occasions, generating hypotheses about phenomena, developing ideas about what they found, and creating beautiful stories that combined fantasy and imagined characters, passion for the natural world, and a sense of their own place in this landscape. These children’s ideas, concepts, narratives, and stories became the focus of my study.

The following are the questions that guided this study:

1. What happens when researchers and teachers follow children’s ideas and narratives through the philosophical lens of Deleuze and Guattari (1987)?

2. How can a pedagogy of listening be understood as a way of co-constructing curriculum with children? What is the impact of a pedagogy of listening on early childhood curriculum and teaching?

3. How can a teacher support the creation of learning contexts that will enrich and extend children’s thinking and learning?

1.6. Children and Narrative

The traces that children leave us of their lives and thoughts cannot be enclosed in words alone, but need something more: images, drawings, writings, and above all narratives (Spaggiari, 1997, p. 10).
Narrative is essential to human experience. We talk about and understand events happening around us through narrative forms (Bamberg, 1996; Bruner, 1986, 1990, 1991; Kerby, 1991; Kristeva, 2000; Polkinghorne, 1998; Ricoeur, 1992). Conventionally, narrative was seen to have a primitive role as a medium for carrying a message, something that could be conveyed and then learned. Narrative has long been thought of as a means to capture the situation, context, and complexity of human action and is considered more than a story or a text. It emerges as a fundamental phenomenon, a “primary act of mind” (Lyons & Laboskey, 2002, p. 3). Narrative can also be regarded in this light as a method, not only of recounting reality but also of constituting reality and of giving meaning to experience. It is the rudimentary way that human beings organize themselves and their worlds (Britton, 1970; Hardy, 1977; Meek, 1977).

According to Chase (2005), the “versions of self, reality, and experience,” which are embedded in narratives, are of more importance than representation of the facts. Through narrative, children develop a sense of self and a growing understanding of the world around them. Chase asserts that narrative in childhood is important in the sense that it allows children to reconstruct their experiences and develop new ways of communicating with the world. Thus, children’s narrative activity should be understood as a way of constructing reality in relation to the formation of self. Particular elements of narrative, such as “meaning making,” “shaping of experience,” and “verbal action,” as defined by Chase, are featured prominently within this dissertation.

In the present study, I have followed children’s ideas and narratives. When children shared their ideas or when they listened to each other's narratives, their ideas and narratives started moving around and in between children. And these ideas and narratives became stories as they were connected and developed by a group of children and retold. Then, the stories continued to evolve as new ideas were added. So, children’s stories were created with their connected ideas.
and narratives. Through sharing ideas, the children developed a sense of belonging and collective experience together.

This evolving reminds me of what Malaguzzi explains about children’s ideas: “So ideas fly, bounce around, accumulate, rise up, fall apart slowly, or spread, until finally one of them takes a decisive hold; it flies higher and conquers the entire group of children” (Strozzi, 2001, p. 75). Learning is provisional and dynamic, as is the movement of children’s understanding (Wien, Guyevskey, & Berdoussis, 2011).

The definition of *narrative* is important to my study of young children’s learning, especially since I use the term in a somewhat unconventional way. For this reason, I address the challenge of stipulating a definition of “narrative” for the purposes of the study, and I situate this particular meaning of narrative within the context of early childhood education. Evidence of children’s construction of narratives can be observed when children engage in such activities as drawing, painting, and pretend play (Engel, 1995), or are focused on a small group project (collaborative map making, for example). Children’s narratives can be memories and recollections of experiences in their lives as well as recall of other stories they have been told.

Above all, I use narrative as a form of ‘meaning making’ in which the significance of individual experiences is recognized by noting how these separate experiences actually function as parts of a whole (Polkinghorne, 1988, p. 36). The conversational characteristic of storytelling, found in both listening to stories and telling stories, helps children express and develop imagination and perspective against a social backdrop. The presence of rationality and imagination and the close intertwining between them are often found in children’s narratives (Vecchi, 2010). When children express themselves, they show us theoretical and pragmatic connections they have made and they express multiple, sometimes shared hypotheses about
elements of the world around them. In other words, narrative serves as a powerful tool for expressing inner thoughts and at the same time making connections with other people.

Moreover, children’s own narratives open up spaces for the interplay of experience, imagination, and thoughts that emerge from the different experiences they have and share. Children’s narratives provide us with an invaluable window into children’s meaning making processes, which themselves form crucial contexts for learning. Narrative also represents a component of the experiences that children reflect on. It allows children to reconstruct their experiences and enhance their ways of communicating. By listening to children’s narratives, we can explore how children make sense of experience, discover the complexity of their meaning-making process, and follow the ways they connect imaginative and real experiences.

1.6.1. Stories and Narratives In Early Childhood Research.

Children use stories and play to transform ordinary experiences into something out of the ordinary, by expanding them in dimension, detail, or interpretation (Engel, 2005). Stories first arise in the context of relationships, in which young children verbalize experiences and encounters for themselves and for others. Through narratives, children are able to express their own experiences, invent stories about themselves, and share their interpretations with others. When children tell a story, they reveal their inner thoughts in terms of how they recognize the world around them (Engel, 2005). Stories are reflections and reconstructions of personal identity and self-understanding. “Stories are a means of examining one’s being-in-the-world” (Heidegger, 1962). Thus, children’s stories play an important role in understanding their perspectives of the world. Several early childhood researchers, including Piaget (1954), have noted that remarkable insights into children’s thinking arise when one listens to their stories.
Paley’s work (1981, 1990, 2001, 2004) shows the power of children’s imaginations and the need to carefully listen to the stories they create in the course of play. As a kindergarten teacher, she employed ‘storytelling’ to help young children learn words, concepts, and the management of their emotions in the classroom. According to Paley (1995), story is the essential cultural and social builder and learning tool of any classroom. Through her teaching, she introduced the use of audiotapes to record the children’s daily interactions in the classroom. These recordings drew attention to the young child’s struggles to make sense of the world and the self. When analyzing her data, she noticed that the stories and narratives children produced while playing in the dramatic play area incorporated real life events with both fantasy play and familiar stories. For instance, by carefully listening to and observing children in the classroom, she was able to see their conceptions of fairness. She deeply engages with questions such as, “Are we fair to those who don’t look like us or act the way we do? What does it mean to be fair with everyone?” She contends that through storytelling and dramatic play, children, with the help of observant teachers, develop a classroom environment based on rules of what she calls the three ‘Fs’: fairness, fantasy, and friendship.

According to Paley (1990), every child enters the classroom in a vehicle propelled by that child alone, at a particular pace and for a particular purpose. Listening patiently and appreciatively to the story of the children is the beginning of a genuine study of children. Even though we can never truly know or understand the perception of another person, interactions and experiences with young children allow us to access their unique understandings of the world. Overall, Paley’s work inspires educators, policy makers, and parents to engage with children’s minds and ideas by listening to their stories and narratives. By telling one’s own story, the narrator reveals what is happening to the self and implies what it means. Through stories, we interpret the diverse context of our lives.
The work of Coles (1986), a Pulitzer Prize winning psychiatrist, documented first-person narratives of children’s impressions about social issues, morality, and politics. Coles documented children’s thoughts and feelings about the dilemmas facing them, dilemmas that ranged from fear of nuclear war to racism’s power in an African American girl’s life. Coles (1977) collected these narratives of children through direct observation. He states,

the whole point of this work has been to put myself . . . in a position, with respect to a number of children, that offers them a chance to indicate a certain amount for themselves to me, and through me, to others. But each life, as we ought know, has its own authority, dignity, fragility, rock-bottom strength. (p. 77)

The heart of his work is listening and describing what has been heard, revealing stories children tell, and uncovering a “psychology of everyday life; a psychology of turmoil; a psychology of hope against hope with plenty of interludes of doubt and fear.” Coles (1986) believes that people’s stories speak for themselves. His work with children demonstrates how important it is to listen to those who are kept quiet and often kept unseen by society.

Despite the work of Paley (1990), Coles (1986), and a few others, young children’s stories and narratives have received less attention than seems warranted given the access stories give us into children’s lives. While there is some research on children and narratives in the disciplines of psychology and linguistics, these focus on skills or functional aspects of narrative (Chang, 1998; Heath, 1982; Kyratzis, 2000; Miller, Mintz, Hoogsta, Fung, & Potts, 1992).

However, there are some education movements in which listening to young children, especially in European and New Zealand early childhood research contexts, is attempted (Carr, Jones, & Lee, 2005). The study by Carr et al. (2005) suggests how to listen to children’s voices while engaging in assessment practice. According to them (2005), assessment is generally related to “normalisation, classification and categorisation” (p. 129). However, they argue that if teachers redefine the purpose of assessment to “notice, recognize and respond to competent and confident
children, then children’s voices will have a large part to play in defining and communicating that learning” (p. 130). This way of looking at children’s narratives as a means of assessment is significant because it reflects on children’s ideas and interests that can be instrumental in planning activities and preparing materials for further learning.

The value of children’s narratives is also recognized in Driscoll and Rudge’s study (2005). They introduced the “profile book,” which is a co-constructed representation of a child, the family, and teachers. Photography and drawings, as well as what a child has to say, are in the profile book. It is a visual narrative of a child. A profile book is a shared resource created by children, parents, and teachers and supports the “settling-in process and provides a means through which all three can be listened to” (p. 93). According to Driscoll and Rudge (2005), a profile book supports relationships between teachers and parents and helps teachers to take children’s ideas into the curriculum. They also assert that by sharing profile books, teachers and parents develop relationships involving deepening understanding about the pedagogical work; it helps teachers as well as parents and children have a voice in curricular decision making.

Eide and Winger (2005) studied child participation in social settings. They have researched a great deal about children’s everyday lives as experienced and interpreted from the children’s own perspectives. These authors state that children’s narratives help teachers and researchers reconsider their ideas about pedagogical practice and knowledge. Eide and Winger state that children not only have the right to be heard, but have important things to say and tell us. According to Eide and Winger, researchers who closely examine children’s perspectives are more apt to contribute to the development of pedagogical settings based on the expressed interests of children. Through thoughtful listening, researchers can also become more sensitive towards the needs of children in diverse social and cultural positions. According to Clark et al. (2005), the research on listening to children’s voices and narratives provides “the rationales for not only the
issue of responsibility but also listening as means of enhancing children’s participation in shaping their own lives and environments and listening as a principle and practice in learning” (p. 1). My own study is premised on a similar rationale: that bringing children’s voices forward in research can lead to the construction of classroom environments that will meet particular children’s needs as well as further enhance children’s abilities and dispositions to actively participate in their own learning.

Children produce many theories and stories to interpret their surroundings, but if these are not clearly heard by adults, they have little impact on the design of early educational experiences. However, awareness of the importance of documenting children’s narratives is growing. More and more early childhood educators, knowing that doing so serves the child’s developing sense of self, are engaging children in meaningful activities using a variety of representational forms. Both the project approach and the emergent curriculum are based on the use of many forms of representation that document the children’s emerging thoughts and experiences. In a small group context, children represent their ideas and perspectives and communicate their understandings about their learning and about their experiences. In these contexts, narrative helps to unfold the project the children are working on.

1.6.2. Documentation as Visible Listening To Narratives.

Pedagogical documentation, as practiced in the municipal infant-toddler centre and preschools of Reggio Emilia, makes learning processes visible (Giudici et al., 2001) and shares publicly the experiences of young children in their daily lives in the schools. Pedagogical documentation is a way of listening to children, observing and recording their learning processes through notes, images, audio, and video recordings (all of which can be used to interpret learning processes), and making the learning visible to children, educators, families, and the community.
Documentation is listening to children’s narratives made visible, a social construction, and an interpretation of learning experiences (Rinaldi, 2001). In addition, it offers a research orientation, creates cultural artefacts, and serves as a collective memory of experience (Krechevsky, 2001) and story.

Pedagogical documentation is the educator’s story of the movement of children’s understanding and it is at the same time the educator’s research story; it presents children’s learning processes and the development of their theories and their movement between “fantasy and what they understand to be reality” (Wien et al., 2011). The political value of storytelling and the power of documentation in its narrative form are especially valued in Reggio settings (Edwards, Gandini, & Forman, 2012). According to Bruner (1996), documentation gives us a story to share. He asserts that we develop ‘intersubjectivity’ through narrative, and through intersubjectivity we build communities of learners. Documentation in this sense represents intersubjectivity; it is coming to know each other’s ideas; it is creating and telling stories about learning and about adults and children learning in a community. It is through listening and observation, and through making documentation visible and shareable, that we can construct our schools as learning communities.

In the process of pedagogical documentation, educators make decisions about choosing an experience to be shared. Documentation informs the practices of educators, their observations, and their planning, allowing them to be reflective educators and learners. When the documentation is shared, the educator takes further responsibility in opening up the space for alternative interpretations by being attentive to how others’ perspectives might have changed the story. Dahlberg et al. (1999) underlined that pedagogical documentation is not a means of capturing a single picture of what children can do. Rather, pedagogical documentation shows values, intersubjectivity, and multiple perspectives. Documentation allows educators to view
children from a perspective of uncertainty so that they can always approach their teaching with the curiosity to understand (Vecchi, 2001), staying close to the interweaving of objects and thoughts, doing and reflecting, theory and practice, and emotions and knowledge. Tarr (2010) argued that

> to begin to document is to begin a journey of changing perceptions and changing actions . . . It is an exciting journey for those who are curious, open to living with some uncertainty and who believe in children’s curiosity as well as their own. (p. 14)

It invites educators to listen closely. Malaguzzi (1998) contended that

> teachers must possess a habit of questioning their certainties . . . responding to all these demands requires from teachers a constant questioning of their teaching . . . They must discover ways as opposed to “an isolated, silent mode of working that leave no traces. (p. 69)

Malaguzzi continued that, for children too, the flow of documentation creates a “second scenario” through which they become more interested and curious as they “contemplate the meaning” of their narrated action (p. 70). He asserted that the stories of children reveal children in creative, unexpected, and unprecedented ways. Making stories about children’s experiences and learning processes visible to the public entails constructions of children that are not abstract. As such, pedagogical documentation acts as an inspiration and a possibility to enlarge our shared thoughts and our shared understandings of children’s thinking and learning processes, which are not linear but multiple and complex. Thus, learning is a process of constructing meaning while knowledge is like Malaguzzi’s idea of “a tangle of spaghetti” (as cited in Dahlberg & Moss, 2005, p. 117). This concept of knowledge challenges the idea of knowledge acquisition as a form of linear progression and is similar to an image of knowledge as a rhizome, a concept developed by the French philosophers Deleuze and Guattari (1987).
1.6.3. Narrative as Movement, Multiplicity, and Becoming: Concepts of Deleuze and Guattari.

Narratives are also very important to the work of Deleuze and Guattari, not in the way that they are used to represent the world but more so in the ways in which narratives are used to *invent* the world. Conventionally, stories have a plot. Plots usually have a beginning, middle, and an end—although linearity and notions of chronological time are suspended in many post-modern narratives (Sikes & Gale, 2006). Deleuze and Guattari (1987) argued for a more complex, non-hierarchical, non-linear structural configuration of narrative, which is defined by movement, multiplicity and a state of becoming. This is the place where the notion of narrative connects to rhizomatic thinking:

> Unlike trees or their roots, the rhizome connects any point to any other point, and its traits are not necessarily linked to traits of the same nature… It is composed not of units but of dimensions, or rather directions in motion. It has neither beginning nor end, but always a middle (milieu) from which it grows and which is overspills… it operates by variation, expansions, conquest, capture, offshoot… it has multiple entryways and its own lines of flight. (Deleuze & Guattari, 1987, p. 21)

Deleuze and Guattari’s (1987) use of the concept of the rhizome provides a rich structural form that might be used to explain the layers and dimensions that complex narrative can take. Within a complex structural formation, Deleuze and Guattari’s (1987) employs the figure of the ‘fold’ to describe the way in which this rhizomatic structure can always be seen to be changing and moving, making connections and multiplying in diverse ways. In Deleuze’s work, the fold relates to “processes of individuation, of becoming; the process of ‘folding in’ adds richness, multiple layers and intensification, the process of unfolding opens out, reveals and makes the familiar strange” (Sikes & Gale, 2006, par. 7). This concept from Deleuze presents the complex structures of narratives and conversation that take place in naturalistic settings. The multiple interconnections of human interaction appear in complex rhizomatic forms (Sikes & Gale, 2006).
Following the process of children’s rhizomatic way of thinking has provided me with new ways of teaching and learning, working with ideas, imagination, and the concepts produced by children during a forest project. In addition, the concept of rhizome has helped me to pay attention to the process of learning, valuing relationships, connections, and encounters among children, adults, materials, and surroundings. According to Malaguzzi (1994), educators should know how to wait for the child in the process of learning because educators often rush to work in their own way. It requires a shift in the role of the teacher from an emphasis on teaching to an emphasis on learning; the role of the teacher not as a transmitter but as a creator of relationships. From this perspective, the current study is so important because it demonstrates that teachers need to learn to see and listen to children, and produce documentation based on the listening. The teachers and the researcher have tried, throughout the study, to create space where the children can freely express their thoughts, work with emergent ideas, and create their own stories.

1.7. Contribution of this Study

My study is significant because it documents how learning evolves when teachers and researchers respect children’s ideas and narratives and take them seriously into their learning processes. Although the image of the child as capable and full of potential is projected in BC Early Learning Framework (2008), in practice, young children are still often viewed as empty vessels, vulnerable beings, and unformed individuals who always need guidance by teachers. MacNautghton (2005) points out that early childhood educators who work within developmentalism as a regime of truth (defined by Foucault, 1972) most often want to know how to think and act as ‘normal’ early childhood educators, focusing on the truth or the one right way of being with children. Thus, working with children’s emerging ideas and narratives without knowing the endpoint of learning can be a shocking and unsettling experience. In this regard, my
study shows what can happen when teachers and researchers surrender their control to children and let the children lead their own learning. In this way, this study produces space to consider other ways of teaching and learning that support children to be active participants in, and authors of their own learning journeys.

1.8. Layout of Dissertation

Chapter 1 is an introduction to my dissertation. I have presented the rationale for my dissertation, along with my three research questions. I have also introduced the premises behind my study and addressed problematic aspects of current early childhood education research and the advantages of children’s participation in curriculum development. I have also introduced some of the theoretical and pedagogical work that inspired me to carry out the study. Additionally, I have taken the opportunity in Chapter 1 to discuss the beliefs I hold as a teacher, researcher, and mother experiencing children’s capacities, curiosities, and their growing relationships with the world. I have also discussed the necessity for finding practical ways to develop services and curricula that respond to the voice of the child.

In Chapter 2, I outline theoretical and practical perspectives on children’s learning processes. I introduce salient concepts related to thinking and learning that will feature largely in my dissertation. In particular, I discuss in this chapter postmodern perspectives on teaching and learning and selected concepts of Deleuze and Guattari (1987) such as rhizomatic thinking, which are critical to this study. These concepts led me to explore thinking and learning as complex and multiple processes rather than linear ones. Also, I introduce work of an early childhood researcher, Olsson (2009), who herself investigated the concepts of Deleuze and Guattari that have contributed to new theoretical directions in early childhood education. Finally, I discuss the philosophical characteristics of the Reggio Emilia approach to early childhood education, which
has been a source of inspiration for many schools in British Columbia and elsewhere in Canada, including the school presented in this study.

In Chapter 3, I explain the pedagogy of listening as described by Reggio Emilia scholars and pedagogical documentation, also taken from the writings of Reggio, as research methodology. In this chapter, I describe characteristics of pedagogical documentation as a tool for observation and evaluation of children’s learning processes. I then discuss qualitative case study, the methodology I employed to explore children’s emerging understandings and artistic experiences as they engaged in a project around/within a forest, from the beginning of January through April. For this study, I participated in the children’s project as a participant observer, as I documented learning experiences and prepared environments with their teachers.

Chapter 4 presents the data and analysis of the children’s project around and within a forest. By employing pedagogical documentation as methodology, I uncover the children’s learning processes and experiences as these unfolded over the four months. I discuss the data with reference to the concepts of Deleuze and Guattari (1987) introduced in Chapter 2. I offer examples of how children’s learning evolved and transformed as children encounter a forest, as well as materials and diverse ideas. With help from the writings of philosophers Deleuze and Guattari (1987), I follow children’s thinking by participating in their deliberations and constructions of their individual and collaborative narratives. As I follow the ‘lines of flight’ (Deleuze & Guattari, 1987) of the children’s ideas, I explore how children’s learning proceeded through encounters with places, ideas, and materials.

In Chapter 5, I summarize the study and explain my conclusions. I illustrate implications of how lines of flight can be created in children’s learning processes through working with children’s ideas and collective experimentation. In particular, Deleuze and Guattari’s (1987) concept of rhizome gives us alternative ways to view teaching and learning. I also revisit my
three research questions and address the ways in which the study sheds light on each of them. 

First, the rhizomatic way of learning, which is not linear but multiple, spreading out in all directions and connecting with multiple phenomena, perspectives, and thoughts, offers children opportunities to create their own pathways in the learning process. With regard to respecting and valuing children’s ideas and narratives in learning, the rhizome is a useful framework for understanding the emergent nature of learning and the living curriculum.

Second, in working with children’s ideas and narratives, we find powerful ways to open up to the dynamic and unpredictable way of learning, the way of making meaning, creating new possibilities, and children’s participation. Children’s ideas brought about important revelations in my study based on the events the children’s thinking produced. The focus in the events is on new concepts, stories, and experimentations emerging from children’s interactions with each other and intra-actions with materials.

Finally, the study addresses the roles of the teacher in early childhood education, using a pedagogy of listening as a tool for learning. Materials and environments prepared by teachers and the researcher were based on critical reflection on learning events as they evolved. These became inspirations for the children to further develop their imaginative stories and to put their thoughts into experimentation and deliberation with others.
When I came into the classroom, I saw Oliver playing at the water table. He seemed very focused. When I approached I saw whales, sharks, and other sea animal toys in the water. I noticed Oliver was holding a green pen and dipping it in the water. I found his actions very interesting, and I kept observing him. He stirred the pen in the water for a while and watched. He dipped the pen again and mixed the water with his hand. Then he drew on the bubbles with the pen and mixed them in with his hand. Next, he walked to the other table and quickly came back with a spoon to stir the water. He repeated the same movements over and over again. His actions were very intentional. I asked him what he was doing. He said that he was making green water for the whales, sharks, and other sea animals. He explained that sea animals live in the ocean where water is green, so he had to make green water for them. He explained, “First you colour on the bubble and then mix it.” As he talked, he coloured the bubbles as you would colour on
paper. He checked repeatedly to see if the water was turning the right shade. I was impressed by his inventive way of making green water and his thoughtfulness for the animals.

Rinaldi (2003) asserts that understanding must be one of the aims of education. “Depth of understanding involves the ability to experience the curiosity, passions, joys and angers of others with a process of empathy, perception and identification, of human understanding. Always intersubjective, human understanding requires openness, sympathy and generosity” (p. 4). If we are curious about what children are focused on, it leads us to their amazing ideas and inventions. If we believe that children are full of ideas and let them work with their ideas, they create new theories and new inventions. When we allow children to spend time and work with their own ideas, as curriculum, they create lines of flight.
CHAPTER TWO

THEORETICAL INSPIRATIONS

All of this is a great forest. Inside the forest is the child. The forest is beautiful, fascinating, green, and full of hopes; there are no paths. Although it isn’t easy, we have to make our own paths, as teachers and children and families, in the forest. Sometimes we find ourselves together within the forest, sometimes we may get lost from each other, sometimes we will greet each other from far away across the forest; but it is living together in the forest that is important. And this living together is not easy. We have to find each other in the forest and begin to discuss what the education of the child actually means. The important aspect is not just to promote the education of the child but the health and happiness of the child as well (Malaguzzi, 1994, p. 53)

This chapter clarifies the theoretical inspirations for my study. I begin by discussing postmodern perspectives on early childhood research and practice, since they represent the major paradigm of my study, which disrupts dominant ideas of teaching and learning. In the context of my study, children learned by following their own ideas and narratives, rather than following a teacher’s pre-planned curriculum and lesson plan. This alternative way of teaching and learning, based on postmodern understandings of the child, contests the image of the child drawn from developmental psychology. Within developmental theory, the young child develops according to a biologically determined innate process (Dahlberg et al., 1999). A child’s age tells us what she can do or what she cannot do. According to Dahlberg et al. (1999), this discourse and perspective lead us to see a passive, incapable, dependent, and isolated child. Postmodern perspectives on childhood challenge developmental norms (Cannella & Grieshaber, 2001), and through them a different image of the child has emerged. In postmodern discourse, a child is born searching for the meaning of life, including the meaning of the self in relation to others and to the world and events of life (Rinaldi, 2003). My study is based on an understanding of the child as intelligent, competent, and unpredictable.
Secondly, in this chapter, I examine selected philosophical concepts of Deleuze and Guattari (1984, 1994, 1987), which contribute to my understanding and analysis of children’s thinking and learning processes. One of these concepts is rhizomatic thought. According to Dahlberg and Moss (2009), Deleuze saw “thought as a matter of creation that takes place when the mind is provoked by an encounter with the unknown or unfamiliar, forcing us to think” (p. xix). This philosophy challenges the assumption that thought is the recognition and representation of what is already known (Deleuze, 1994; Dahlberg and Moss, 2005). Exploring rhizomatic thought plays a significant role in my study because it supports my examination of children’s dynamic ideas and narratives. To engage with children ideas and narratives, which are constantly shifting and which are connected and interconnected, the concept of rhizome has helped me go beyond approaching education as a linear learning with predetermined goals, but as a constant state of becoming, also an important concept for Deleuze and Guattari.

In this chapter I also explore the philosophical principles of the Reggio Emilia approach, which inspired many of the practical considerations for my research: (a) The image of the child is the foundation of the principles and practice of the pre-schools and infant toddler centres of schools of Reggio Emilia, (b) Progettazione which is the Italian term used by Reggio Emilia educators and is interpreted as emergent curriculum in North America, (c) pedagogy of relationships, which emphasizes placing each child in relation to other children, teachers, parents, his or her own history, and the societal and cultural surroundings, (d) the role of teacher as co-constructor, co-researcher, and facilitator in children’s learning, (e) environment, which is considered as a third teacher in children’s learning, and (f) inspiration of Reggio Emilia approach for the theory and practice of early childhood education. I will also address a pedagogy of listening and pedagogical documentation in my methodology chapter.
2.1. The Project of Postmodernism and Early Childhood Research

According to Foucault (1972), knowledge and truth are intrinsically tied up with the way in which power operates. Modern societies and institutions survive by requiring and producing a ‘regime of true’ about how we should think, act, and feel towards others and ourselves. MacNaughton (2005) argued that early childhood educators working within developmental theory are enacting a regime of truth concerned with how to be a 'normal' early childhood educator, framing their work in certain ways based on the assumption that if they are to be considered good educators, there is a narrow range of specific behaviours and qualities they need to attend to and enact.

As it relates to early childhood education, postmodern viewpoints problematize the idea that there is an absolute knowledge and truth we can attain as researchers. Instead of 'givens' we can access, the world and knowledge are seen as socially constructed (Berger & Luckman, 1966). Postmodern perspectives offer a different understanding of knowledge as ambiguous, contextualized, localized, incomplete, and produced in diverse ways (Dahlberg et al., 1999). These characteristics also mean that one goal of research is to provide a space where new possibilities can be explored and realized through expanding reflexive and critical ways of knowing (Dahlberg et al., 1999). So, in terms of educational thought and research, the project of postmodernism (defined by Dahlberg et al., 1999) values social and individual diversity in learning, and privileges relationships with others in the process of meaning making over individual pursuits toward finding truth (Dahlberg et al., 1999). Postmodern frameworks consider the child as a co-constructor of knowledge, the co-constructor of his or her own identity, and the co-constructor of culture (Dahlberg et al., 1999). Research within postmodernism can provide us with valuable insights into children’s perspectives and understandings because it begins from a commitment to value and communicate children’s ways of knowing.
Thus, postmodernism highlights new ways of understanding teaching and learning; a different discourse of meaning making is brought into focus. According to Dalhberg et al. (1999), this discourse is situated within the ethics of an encounter, “foregrounding the importance of meaning making in dialogue with others” (p. 106). The discourse of meaning making relates to an understanding of learning as a process of co-construction; it is in relationship with others that we make meaning of the world. For these reasons, knowledge is always context based and value laden, contrasted against more traditional or modern notions of universal truths and scientific neutrality (Dalhberg et al., 1999).

In addition, from a postmodern perspective, learning is not seen as a process of moving forward with understandings in a linear and predictable way. Rather, understandings are constructed through a dynamic process involving the uncertainty and chance that arise in relationships with others and grow in many directions (Moss & Petrie, 2002). This view brings with it a different narrative about early childhood practice and curriculum. According to Dahlberg and Moss (2005), this narrative starts from a novel image of the child, or what Malaguzzi (1998) described as a 'rich child,' an active participant and creator of knowledge, identities, and culture. Postmodern perspectives de-center the child, viewing the child as coming into being through his or her relations with others and always within a particular context. This image of child is also related to the image of an educator who is a learner, a researcher, a critical thinker, and a reflective practitioner (Malaguzzi, 1998). Institutions are further understood as places of encounters and as the sites of ethical practices, rather than as places that exist primarily for the transmission of knowledge (Dahlberg & Moss, 2005).

According to Dahlberg and Moss (2005), the 'ethics of encounter' is built on the welcoming of and hospitality toward the other. It requires openness to the other, a commitment to trying to listen to the other from one's own position. Teaching and learning begin with the ethics
of encounter because the first step is to receive and welcome the other. Therefore, if you believe that children have their own ideas, perspectives, and interpretations, and they are protagonists in learning processes, then, as Rinaldi (2006) argues, the most important verbs in educational dialogue is no longer to talk, but to listen.

Postmodern perspectives also suggest different ways of understanding knowledge, beginning with the image of knowledge as a rhizome (Deleuze & Guattari, 1987). The rhizome grows in all directions with no beginning and no end, but always in the spaces between. This image suggests multiplicity, connections, and heterogeneity. Thoughts and concepts are viewed as creations that emerge from encounters with provocation and difference. Learning is no longer seen as knowledge acquisition or as a linear progression. Instead, knowledge, identity, and culture are constituted and reconstituted in relation to others. Knowledge is no longer viewed as an accumulation and reproduction of facts, but as an open-ended conversation, in which neither agreement nor a final truth are sought (Dahlberg et al., 1999). Therefore, according to Dahlberg et al. (1999), appropriate pedagogy for our postmodern condition is necessarily based on relationships, encounters, and dialogue with others, both adults and children. This approach could be called a pedagogy of relationships, in which children are understood as active participants in constructing their knowledge and identities; this pedagogical stance is central to the Reggio Emilia approach:

Children learn by interacting with their environment and actively transforming their relationships with the world of adults, things, events, and in original ways, their peers. In a sense children participate in constructing their identity and the identity of others. Interaction among children is fundamental experience during the first years of life. Interaction is a need, a desire, a vital necessity that each child carries within . . . Children’s self-learning and co-learning (construction of knowledge by self and co-construction of knowledge with others), supported by interactive experiences constructed with the help of adults . . . Constructive conflicts resulting from the exchange of different actions, experiences and ideas transform the individual’s cognitive experience and promote learning and development. (Malaguzzi, 1993, pp. 11-12)
In the Reggio context, relationships between children, parents, teachers, and society are at the center of education, and the early childhood institution is a place of shared lives and relationships among adults and children. The child, from a very early age, is a communicative individual (Malaguzzi, 1998). If we are interested, as teachers and researchers, in foregrounding relationships and communication, we need to listen to the ideas, questions, concerns, and preoccupations of children. We need to make meaning from what is said through their spontaneous conversations, without imposing preconceived ideas of what is correct or valid (Rinaldi, 2006). Reggio educators believe that pedagogy and the pedagogical environment need to be constructed with a view to stimulate children’s own activities and the possibilities for them to communicate their experiences to others. Through communication, children can discuss, make choices, argue for their choices, and become active participants in their own learning processes (Rinaldi, 2006).

Pedagogical work in Reggio Emilia has turned away from the modernist idea of unity in learning, which values systems, structures, centralization, hierarchy, coherence, and normalization. It has turned towards the postmodern idea of complexity and has recognized the great opportunities that arise from recognizing “difference, plurality, otherness and unpredictability” (Dahlberg et al., 1999). Exploring the context inspired by the pedagogical philosophy of the Reggio Emilia approach is worthwhile, since it suggests alternative perspectives of understanding and evaluating pedagogical work that accommodates diversity and multiple ways of teaching and learning (Dahlberg et al., 1999). Pedagogical inspirations from the Reggio Emilia approach are integral to my study and will be discussed in detail later in the chapter.

As mentioned, my study is also informed by the philosophical work of Deleuze and Guattari (1987, 1994). In the following section, I explore particular concepts that relate to the
emergent, complex, and unpredictable nature of children’s learning, clearly evident as I followed
the children through their daily interactions with each other and their teachers, as well as the
learning environments they encountered. When applied to early childhood education, the
concepts of rhizomatic thinking, assemblage of desire, affect, and transcendental empiricism
suggest an alternative way to standardized curriculum by providing spaces for creating something
new through connections, relations, and experimentation.

2.2. Philosophical Concepts of Deleuze and Guattari

Recently, the work of Deleuze and Guattari has received attention in the early childhood
education (Dahlberg & Moss, 2005; 2009). Of particular relevance to my study is Olsson’s work
(2009), wherein Deleuze and Guattari’s philosophical concepts account for movement and
experimentation in early childhood learning. For instance, Olsson’s recognition of the importance
of looking at children’s desire as a positive force for learning processes served to focus my
attention on my participants’ (the children’s) desires. Furthermore, in considering how to follow
and interpret children’s ideas and narratives in my study, I have employed five particular
concepts of Deleuze and Guattari. I discuss each of these in turn.

2.2.1. Nomadic Thinking.

Historically, thinking has been characterized by “stability, systematic construction,
linearity, and categorization, which produces life as organized, systemized, and marked by
habits” (Olsson, 2009, p. 25). According to Deleuze this image of thought has played a repressive
role in education; it actually stops us from thinking (Deleuze & Parnet, 1987, p. 13). Against such
limitations, Deleuze and Guattari put forward the idea of nomadic thinking, a notion that
challenges the belief that thought itself is recognition and representation and learning is
transmission and reproductive imitation of what is already known (Deleuze, 1994; Dahlberg &
Moss, 2005). According to Deleuze (1994), nomadic thinking is constructed through encounters and relations; it moves freely in an 'element of exteriority;' that is, it is constituted in the connections between, for example, the connections between a person and materials, and between person and a milieu, not within an individual mind. Roffe (2005) states that one of the inherent themes of Deleuze’s philosophy is a rejection of the value of ‘interiority,’ or what exists independently (Deleuze, 1991). The terms ‘outside’ and ‘exteriority’ play an important role in Deleuze’s philosophy. According to Massumi (1987), for Deleuze and Guattari, thought “does not repose on identity; it rides difference” (p. xii). Dahlberg and Moss (2005) also explain that for Deleuze and Guattari,

thought is the consequence of the provocation of an encounter, with the rhizome of thought shooting in all directions, without beginning or end, but always being in between. It is multiplicity, functioning by means of connections and heterogeneity. Thought then is a matter of experimentation and problematisation-lines of flight, an exploration of a becoming, being shaken up as we encounter something that does not fit with our habitual ways of seeing and understanding. (p. 117)

From this perspective, thought is continuously created through relations and encounters. The idea of experimentation here means working with unknown. Therefore, for Deleuze, “to think is to experiment, but experimentation is always that which is in the process of coming about—the new, remarkable, and interesting that replaces the appearance of true I would just take out” (Deleuze & Guattari, 1994, p. 111). For Deleuze, empirical understanding emerges through active engagement with the unknown; thought as created through encounter; and this accounts for the continuous production of thought in practice. It is the ongoing confrontation between examples from practice and the philosophical concepts we hold that bring something new forward in terms of understanding (Deleuze, 1989, 2001). Conceiving of thought that continually creates and renews itself through encounters and relations can be insightful to early childhood educators interested in regaining “vitality, movement and experimentation” into their practice (Olsson,
2009, p. 28). From this perspective, the concept of nomadic thinking plays an important role in understanding the movement of children’s ideas and inventions in relation with each other and the forest that serves as a setting for my study.

According to Olsson (2009), the complexity of Deleuze and Guattari’s philosophy explains dynamic thinking processes and changing relations between oneself and the world, both of which are part of the everyday experiences of young children. Deleuze and Guattari bring philosophical insight close to what we see happening in early childhood educational settings. Olsson (2009) was one of the first researchers to investigate the potential contribution of the thinking of Deleuze and Guattari to the field of early childhood education, constructing the problem of how to work with the concept of movement in thought as it relates to teaching practices with young children. Her study demonstrated that the subject is always in a process of becoming and that movement and transformation is learning. Dahlberg and Moss (2009) explained that, “Olsson and the teachers that she has been working with have tried to take care of this force and vitality, its mode of becoming, by directing attention to the process. The primary focus has not been to judge their final result. The focus has rather been to follow how the learning processes proceed” (p. xxii).

According to Dahlberg and Moss (2005), in Deleuze’s thinking, knowledge as commonly represented is a dull concept:

Almost deadly, leading nowhere; it is about the recognition of existing facts and solutions to known problems. Thought, by contrast, is life. Thought opens us up to change, innovation, and the invention of new possibilities. Thought is critical and creative with regard to new concepts, problems and learning. Thought respects singularity.” (p. 114)

Deleuze’s understanding of thought is important for my study because it offers an alternative interpretation of children’s experiences and experiments. Using the lens of Deleuze, children’s conversations are infused with nomadic and rhizomatic thought in contrast to reflecting more
classical images of thinking that is related to recognition and linearity.

2.2.2. The Concept of Rhizome.

For Deleuze and Guattari (1987) the rhizome suggests a particular way of thinking, what they call nomadic thinking, that challenges us to embrace the unpredictability and uncontrollability of life. They borrowed the notion of the rhizome from biology: “As a symbol for unlimited growth through the multitude of its own transformations, rhizome is contrasted with a tree that symbolizes the linear and sequential, ‘arborescent’ reasoning rooted in finite knowledge” (Semetsky, 2007, p. 198).

A rhizome spreads, such as mushroom or crabgrass, without a central root, a spot of origination. “This is very different from the tree or root, which plots a point, fixes an order” (Deleuze & Guattari, 1987, p. 7). Deleuze and Guattari (1987) argue that the tree is filiation, but the rhizome is alliance, uniquely alliance. The tree imposes the verb to be, but the fabric of the rhizome is the conjunction, and…and…and… This conjunction carries enough force to shake and uproot the verb to be. (p. 25)

The rhizome shows another way of travelling and moving: “proceeding from the middle, through the middle, coming and going rather than starting and finishing” (Deleuze & Guattari, 1987, p. 25). The central principles of the concept of rhizome are connection, heterogeneity, multiplicity, asignifying rupture, and cartography/multiple entryways:

There are only lines, producing multiplicities and making new connections. The principle of a signifying rupture means that “a rhizome may be broken, shattered at a given spot, but it will start up again on one of its old lines, or on new lines… That is why one can never posit a dualism or a dichotomy, even in the rudimentary form of the good and the bad.” (Deleuze & Guattari, 1987, p. 9)

Deleuze and Guattari (1987) further distinguish the tree and rhizome metaphors by contrasting notions of tracings (decalcomania) and maps (cartography):

A tracing is a reproduction of the world based on existing striated structures. In contrast, "the map is open and connectable in all of its dimensions; it is detachable, reversible,
susceptible to constant modification. It can be torn, reversed, adapted, to any kind of mounting, reworked by an individual, group, or social formation.” An essential characteristic of a map is that “it always has multiple entryways” (p. 12).

They use this symbol of rootlessness because it resists “the traditional, rational and logical approach to knowledge” (Duckworth, 2009, par.1). Often the traditional approach to knowledge is represented as growing from roots like a tree. On the other hand, Deleuze and Guattari (1987) explained that the rhizome “has neither beginning nor end, but always a middle (milieu) from which it grows and which it overspills” (p. 21). “A plateau is always in the middle, not at the beginning or the end. A rhizome is made of plateaus: a continuous, self-vibrating region of intensities whose development avoids any orientation toward a culmination point or external end” (p. 21–22). They employed a metaphor of rhizomes to conceptualize networks in knowledge creation, as dynamic entities. When applied to early childhood education, the concept of rhizome in teaching and learning suggests an alternative to models with predetermined outcomes and homogeneous assessments (Olsson, 2009). Olsson (2009) asserted that the child participation in curriculum making should be centered on children’s desires and thoughts. Furthermore, learning should be treated as “impossible to predict, plan, supervise or evaluate according to predefined standards” (Olsen, 2009, p. 117). In this regard, the rhizomatic way of thinking and learning as conceptualized by Deleuze and Guattari (1987) can be useful for reconceptualising curriculum for young children as emergent and relational. The rhizome metaphor contests traditional cause and effect relationships and creates a space for supporting and constructing new and shifting knowledge creation in early childhood learning environments (Olsson, 2009). Knowledge is part of a relational field. My study explores children’s learning by following children’s ideas, which are spontaneous, dynamic, and unpredictable. From this perspective, the concept of rhizome offers an alternative interpretation of children’s knowledge building. Through this lens,
knowledge building is understood as being constituted by constant connections and relations between different ideas: knowledge creates more possibilities for knowledge, and on it goes.

According to Dahlberg and Moss (2009), in standard models of early childhood education and child development, linearity and progression have been valued qualities. However, in the context of rhizomatic and nomadic thinking, there is a multiplicity of interconnected thoughts going off in all directions, so linearity and progression are no longer applicable or useful notions with any explanatory power. Thus, Dahlberg and Moss asserted that rhizome as metaphor offers the possibility of resisting normalizing practices. Instead, the metaphor opens our consciousness to new ways of relating to young children’s participation and learning, and these become both challenging and transformative. In short, the rhizome connects a point to any other point, but not in a predictable or straightforward fashion. “It is composed not of units but of dimensions, or rather directions in motion” (Delueze & Guattari, 1987, p.21). It operates by “variation, expansion, conquest, capture and offshoot” (p. 21). It has “multiple entryways” and thereby creates “its own lines of flight” (p. 21). For Deleuze and Guattari (1987), lines of flight means creation and invention:

This is how it should be done: Lodge yourself on a stratum, experiment with the opportunities it offers, find an advantageous place on it, find potential movements of deterritorialization, possible lines of flight, experience them, produce flow conjunctions here and there, try out continuaus of intensities segment by segment, have a small plot of new land at all times. It is through a meticulous relation with the strata that one succeeds in freeing lines of flight. (p. 161)

As such, a rhizome is a metaphor for multidirectional growth. It describes an open system of multiple intersections and connections on various planes as Deleuze and Guattari explained in their book, *A Thousand Plateaus* (1987). In terms of learning, rhizomes represent multiplicities of connections, whether these are connections between ideas, experiences, and encounters within the environment, perspectives, and so on. Rhizomes undergo continual metamorphosis. At first,
the rhizome is made only of lines. Lines of segmentarity and stratification are its only dimensions. “The rhizome is an anti-genealogy” (Deleuze & Guattari, 1987, p. 11). It is a short-term memory, even anti-memory. In contrast to centered systems with hierarchical modes of communication and pre-established paths, the rhizome is “an acentered, nonhierarchical, non-signifying system” (Deleuze & Guattari, 1987, p. 21).

There is no privileged point of view on a rhizome. No position can be privileged over any of the others. So there are no grand 'metapositions' that pretend to have access or insight into ultimate truth, which is a classical image of metaphysical thinking whereby one can look out to the terrain and develop an ultimate dogmatic point of view to which everything else is subordinated. The concept of rhizome then serves as a means to acknowledge different and diverse ways of children’s meaning making and experiences that create dynamic relations in teaching and learning and spaces for creative ideas, events, and stories—lines of flight, as is the case in the current study.

According to Deleuze and Guattari (1987), we are composed of bundles of lines because each kind of line is multiple:

We may be more interested in a certain line than in the others, and perhaps there is indeed one that is, not determining, but of greater importance ... if it is there. For some of these lines are imposed on us from outside, at least in part. Others sprout up somewhat by chance, from a trifle, why we will never know. Others can be invented, drawn, without a model and without chance: we must invent our lines of flight, if we are able, and the only way we can invent them is by effectively drawing them, in our lives. Aren't lines of flight the most difficult of all? Certain groups or people have none and never will. Certain groups or people lack a given kind of line, or have lost it. (p. 202)

Lines of flight are creative escapes from the standardization, oppression, and stratification of society. They are examples of inventive thinking and action.
2.2.3. Assemblage of Desire.

Assemblage is another key concept in the work of Deleuze and Guattari. Assemblage is the way that one multiplicity of ideas, perspectives, encounters, and so on connect to another, thereby forming larger assemblages. Assemblage (or *agencement* translated from French) means “the processes of arranging, organizing, and fitting together” (Livesey, 2005, p. 77). Assemblages are a complex arrangement of objects, bodies, expressions, qualities, and territories that come together for changing periods of time to create new ways of functioning (Livesey, 2005). Assemblages operate through desire as abstract machines, or arrangements, that are productive and have function; desire is the moving energy that produces connections.

According to Deleuze and Guattari (1987) desire is always assembled; it takes place between people. We never desire an object in itself; we desire the object in a complex network of relations. They define desired as a “process of production” (Deleuze & Guattari, 1987, p. 154). They acknowledge that desire is normally thought of as the feeling of the lack of a fantasized object. The psychoanalytic conception of desire as a lack (regulated by Oedipal law) is one of the main misunderstandings of desire that Deleuze attempts to reinterpret. According to Deleuze and Guattari (1987), desire has been condemned by psychoanalysis to signify repression under the law of lack. These fantasies have been imposed on already “predefined schemas, the most dominant being that of Oedipus. Within psychoanalysis the figure of Oedipus appears so that every experience is interpreted through the formula of desire as lack” (Olsson, 2009, p. 143).

According to Ross (2005), Deleuze is explicitly critical of the alliance between the three concepts of desire–pleasure–lack: “Whether desire is related to the law of lack or the norm of pleasure, it is still misunderstood when seen as regulated by lack or discharge” (p. 66). This “Oedipal figure of lack is not only prominent within the practice of psychoanalysis” (Olsson, 2009, p. 143); it is prevalent within the practices of early childhood education.
From the perspective of developmental psychology, children act upon the idea of lack. Olsson (2009) stated that “the needs that are attributed to very young children have been carefully constructed and defined by developmental psychology. These constructions and definitions repress and tame children’s desires into already defined schemas of development” (p. 143). According to Deleuze and Guattari (1984), within the logic of desire as lack, children become ‘needy’ because their desire is treated as signs of need and lack. Olsson (2009) asserted, “institutions working within the logic of desire as lack try to tame children’s desire, to predict, control, supervise and evaluate them to predefined standards” (p. 141). However, from the perspective of desire as a process of production (Deleuze & Guattari, 1987, p. 154), desire is acknowledged as something that is never “tamable.” “The concept of desiring-production prevents desire from being understood in terms of lack. Instead, desire is viewed not just as an experimental, productive force, but also as a force able to form connections and enhance the power of bodies in their connection” (Ross, 2005, p. 67).

In addition, Deleuze insisted that we should not confuse desire with the features of nature. For Deleuze and Guattari (1987), to desire is to construct an assemblage. You desire within an assemblage to construct new assemblages. Desire in this view functions as a machine. That ‘machined assemblage’ deals with “material processes of bodies and actions and serves to prevent us from thinking that desire is something biological, natural and essentially inherent in a person.” Thus, “desire never exists outside an assemblage” (Olsson, 2009, p. 149).

According to Deleuze and Guattari (1984), the construction of an assemblage does not take place in a rationally planned manner. There is nobody to push the button to turn on and off the machines of desire. The machine sets itself going. Assemblages emerge from the arrangement of heterogeneous elements into a productive (or mechanistic) entity that can be diagrammed, at least temporarily. “The diagram defines the relationships between a particular set of forces; a
diagram is the map of destiny” (Deleuze, 1988, p. 36). The diagram is the arrangement by which an assemblage operates, it is a map of the function of an assemblage; assemblages produce affects and effects. In short, for Deleuze and Guattari (1987), “desire has nothing to do with a natural or spontaneous determination; there is no desire but assembling, assembled, desire” (p. 399). “There are no internal drives in desire, only assemblages. Desire is always assembled” (p. 229). In Olsson’s study (2009), the concept of assemblage of desire was used in order to account for movement and experimentation in early childhood practice. The concept of assemblage applied to preschools “where children construct and produce their own questions and problems” (p. 148). The assemblage of desire is a valuable concept in my study. As I followed children’s ideas and narratives, I encountered their desires. The assemblage of desire explains how the children’s ideas evolve and are transformed as they work with ideas and inspirations while working as a group.

Knight (2011) also argues that education is assemblage: “Adults, children, environments operate as individuated series-of-assemblages; of sights, memories, imaginings, desires—clusters of components that constantly shift. These series-as-assemblages are immanent, always in a fluid state, never fixed or situated, but transient” (p. 10). I use the concept of assemblage of desire as a process of production in my study to explain how lines of flight were created as children work with their own ideas and desires in relationships with each other, materials, and environments.

2.2.4. Affect.

Deleuze’s approach to the term affect is different from that in psychology where affect is denoted as “emotional corporeal and psychological reactions, such as delusion, euphoria, sadness, grief, and trauma” (Colman, 2005, p.11). Deleuze thought of affect as a philosophical concept that indicates the result of the interaction of bodies. Affect indicates a body’s capacity to act.
Deleuze and Guattari took the concept ‘affect’ from Spinoza, drawing from Spinoza in defining affect as *what a body can do*. For Spinoza, affects are states of mind and body related to feelings and emotions. The term ‘affect’ is the change or variation produced in a body and mind by an interaction with another body. Deleuze and Guattari engaged Spinoza’s philosophical conceptions of affect to describe the processes of becoming, transformation through movement and over a period. However, according to Massumi (1987), Deleuze and Guattari distinguished between affect and a personal feeling. Affect does not denote a personal feeling. Feelings are personal and biographical, and affects are associated with the pre-personal process of ‘becoming.’ Affect is the change that occurs when bodies encounter. In an assemblage the involved bodies are either expanded or restricted in their capacity to act. “When something in an assemblage changes, the bodies involved are being affected or are affecting” (Olsson, 2009, p. 147-148). The affects of powers of a body are constantly increasing and decreasing depending on extent to which the other bodies we encounter ‘agree’ or ‘disagree’ with us, to what extent they bring us joy or sadness. Affect is not a ‘thing’ in Deleuze’s thinking; rather, affect is the term describing a particular kind of ‘encounter’ between bodies (Cull, 2013). For Deleuze (1988b), “a body can be anything. It can be an animal, a body of sounds, an idea; it can be a linguistic corpus, a social body, a collectivity” (p. 127).

Spinoza’s concept of the body makes us focus on the specific potentialities in every situation. Affects that produce joy and sadness will be different for everybody. Deleuze (as cited in Cull, 2013) noted, “a fly will perceive the sun in another fashion” (p.129). In short, for Deleuze and Guattari (1987), affects are becomings and transformation. They are encounters that ‘force us to think.’ They explain that, ‘becoming-animal,’ ‘becoming-woman,’ ‘becoming-minor’ necessarily involves affects. Becoming does not involve a process of imitation, identification, or reproduction of animals or women. They argue that becoming is never imitating; it is a creation
of the new rather than a repetition of the same. I use the concept of affect in my study in order to account for how children’s different ideas and experiences of the forest affect each other and their learning processes. The concept of affect as becoming and transformation explains children’s learning processes that are not predetermined, but take shape as children encounter different ideas, materials, and surroundings, and as they work in an assemblage of desire.

2.2.5. Transcendental Empiricism.

Deleuze (1994) considered thought as experimentation: “to think is to experiment, but experimentation is always that which is in the process of coming about—the new, remarkable, and interesting—which replace the appearance of truth and which are more demanding” (p. 111). According to Olsson (2009), “this brings philosophy very close to what takes place in everyday practices” (p. 27). Olsson suggested (2009) this point posits “a specific kind of empiricism that is different from the one referred to in most epistemological traditions” (p. 27). Olsson (2009) explained that this philosophy accounts for “the unstableness and continuous production of thought and practice,” and “accounts for thoughts as created through encounters and relations” (pp. 27-28). A thought that creates itself as it moves through encounters and relations, as suggested by Deleuze and Guattari, helps to explain how children’s new ideas, concepts, and stories can be created through connections with one another and the forest in my study.

Deleuze looked for a higher empiricism (Deleuze, 1994). “To experiment is to try new actions, methods, techniques and combinations, without aim or end” (Deleuze & Guattari, 1987, p. 371). Similarly, Baugh (2010) argued that “we experiment when we do not know what the result will be and have no preconceptions concerning what it should be. Thus, experiment is inseparable from innovation and discovery” (p. 93). Experimentation can be the process that seeks to explain how assemblages function by analyzing the elements that compose them.
Through experimentation we discover how something works by relations among the parts of assemblage—their structures, flows, and connections (Deleuze & Guattari, 1987). Experimentation is necessary to reveal “what a body or mind can do, in a given encounter, arrangement or combination of the affects a body is capable of” (Deleuze, 1988b, p. 125) and also to uncover the “effects of combinations or encounters will increase the powers of acting of the elements combined into a greater whole, or whether the combination will destroy the elements” (Baugh, 2010, p. 94). Deleuze and Guattari (1987) argued that the compatibility or incompatibility of different elements and bodies, and the effect of their combination, can only be verified through experience; we have no a priori knowledge of them through principles or axioms. In addition, they stated that experimentation proceeds ‘flow by flow,’ using different techniques and materials without any pre-established or set rules. One never knows in advance; if one did, it would not be an experiment.

According to Olsson (2009), Deleuze’s empiricism is connected to a new construction of subjectivity, “where the self is no longer attached to a specific identity, but rather subjectivity is considered a process of becoming” (p. 42). Deleuze (1994) introduced empiricism into an image of thought whereby “It [thought] no longer functions through recognition and representation but rather through encounter, connections and assemblages” (Olsson, 2009, p. 42). It is thinking that “constructs and experiments through making new connections in a pragmatic way” (Olsson, 2009, p. 43). From this perspective, teaching and learning are seen as a process of experimentation that constructs 'lines of flight' by affecting new and previously untried combinations of persons, forces and things (Deleuze, 1994).

Deleuze and Guattari (1987) argued that transcendental empiricism is not the same thing as transcendent; transcendence is that which attempts to go beyond or above what we can experience. They claimed that a thought that creates itself as it moves through encounters is
looking for that which is unfamiliar and unexpected (Deleuze & Guattari, 1994). Transcendental empiricism devalues consciousness’s capacity and aspirations to account for the world (Olsson, 2009). Instead, Deleuze and Guattari (1994) proposed a transcendental field, where consciousness no longer functions to establish the essential thinking subject. This field is also called the plane of immanence, which “concerns the self-creation of thought” (Olsson, 2009, p. 95). There is no longer any stable ground and there is no longer a subject capable of thinking of itself and the world as objects” (Olsson, 2009, p. 51). Deleuze (2000) stated that we are made up of relations. Events will make sense to us if we experience the difference that makes each event singularly important in practice. Semetsky (2007) argued that, for Deleuze, life is experimental; experience is what affects us and is therefore affective. Thinking enriched with affect is always experimental rather than focused on discovering an eternal Truth. For Deleuze (1988), we are never separated from the world: rhizomatic lines connect “the interior as a selected exterior and the exterior, a projected interior” (p. 125). The process of rhizomatic inquiry into an unknown is not based on any pre-conceived foundation, but is embedded in the experimentation of experience with all its unpredictable conditions. The creative process of learning is as much a method of invention (Deleuze, 1994).

Semetsky (2007) asserted that learning cannot take place as representation. This would be the reproduction of knowledge. Semetsky argued that for Deleuze, it is the difference embedded in real experience that prevents any prior recognition; the singularity of situation creates an experiment with the new and something unfamiliar. Transcendental empiricism features in my study as a way to explain the role of children’s ideas and narratives in the ongoing work of experimentation that is always taking place in early childhood practice. Transcendental empiricism accounts for its own inventiveness with practices taking place within a relationship of children, materials, surroundings, and experimentation.
The concepts I have selected from Deleuze and Guattari help to illuminate facets and processes of children’s thinking. These concepts may be more clearly understood in the context of the following example. One morning in the centre’s art studio, a young boy became fascinated with breaking sticks of charcoal that had been set out for drawing. Each time he broke a stick, the pieces jumped or turned to powder or made an audible pop. The boy then picked up a pair of scissors to cut the charcoal, which produced even more effects. Other children joined in, captivated by the results. The accidental encounter (breaking sticks of charcoal) became an intentional action when the boy picked up a pair of scissors. The scissors produced intense desire and it affected other children. Charcoal, being broken, popping sounds, scissors, and children became involved in assembled desires; they all got caught up with a new event. The teachers and I were overwhelmed by the intensity of the children’s event. But one teacher told the children, “if you cut up all the sticks of charcoals, we won’t have them for drawing.” Then, the children’s assembled desires started to disperse.

Afterwards, the teachers and I talked about this event. We all agreed that we needed to teach the children how to respect materials. However, we could not ignore their strong desire for cutting up charcoal sticks. The children’s desire affected us. We tried to find ways of respecting and supporting the children’s desire. Then, we remembered there were burnt trees in the forest nearby that have natural charcoal. The children, teachers, and I made a trip to the forest with each person bringing a bucket and a pair of scissors. The children were deeply engaged in cutting and collecting the natural charcoals. They continued working until their buckets were full of charcoals. When we respected the children’s desires, a new event was created. We took the children’s desire for cutting a stick of charcoal seriously and tried to create a way to work with their desire. This example illustrates ‘assemblage of desire.’ According to Olsson (2009), “We are made of many assemblages. We desire, never alone or in relation to a particular object; we
desire in a network of relation” (p. 55). When we tried to meet with children’s desire instead of taming it, desire became a powerful force for creating new ideas-lines of flight. The collected natural charcoals inspired the children; the children wanted to draw with them. The children wanted to make charcoal pieces, which they could use for drawing. Teachers recognized the children’s shifting desire from cutting charcoals to drawing with charcoals. We decided to conduct an experimentation with the children to make the natural charcoals usable for drawing without knowing if it would be successful or not and how to do it. This was how our transcendental experimentation was initiated starting with desire and ideas without knowing the end.

2.3. The Reggio Emilia Approach

Dahlberg and Moss (2009) connected Deleuze and Guattari’s notion of the ‘rhizome’ with project learning in Reggio Emilia preschools. According to these authors, project learning in Reggio Emilia starts from a different logic of knowledge, where there is no predefined progression toward a predestined end. From this perspective, learning is a process of meaning making and knowledge construction is described as “a tangle of spaghetti—with no beginning or end, no linear progression but always open to new possibilities” (Edward et al., 1998, p. 156). This metaphorical phrase is very similar to the concept of ‘rhizome.’ Both concepts, ‘a tangle of spaghetti’ and ‘rhizome,’ emphasize that learning does not proceed in a linear way, and both place encounters and relationships at the center of learning processes. Investigating the philosophical characteristics of the Reggio Emilia approach is important for my study, since the preschools in Reggio Emilia have put children’s ideas and interests at the center of their curriculum (Edwards, Gandini, & Forman, 1998), valuing children’s rights to be listened to and to be recognized social actors in the community (Dahlberg et al., 1999; Rinaldi, 2006).
principles and practices of the Reggio Emilia approach have been a source of inspiration for many schools in British Columbia and elsewhere in Canada, including the centre involved in my own study (BC Early Learning Framework, 2008).

The town of Reggio Emilia in Northern Italy represents a unique socio-cultural context that draws on centuries of tradition and history associated with the larger Italian culture as well as culture at the local and regional level (New, 1993). In particular, the value assigned to social responsibility for children and benefits of collaborative relationships in Reggio Emilia may also be found in both regional and national traditions in Italy. The collaborative model of early childhood education reflects and contributes to socio-cultural values and principles of the larger Italian setting. Rogoff’s (1990) interpretation of knowledge construction within such a situated context as Reggio Emilia is that it takes place through the child’s apprenticeship to the rites, routines, and possibilities inherent within a family, a classroom, or a society. In the following sections I discuss ideas that are central to Reggio Emilia practices.

2.3.1. The Image of the Child.

The image of the child is the starting point of the principles and practice of the preschools and infant toddler centres of schools of Reggio Emilia. During WWII, Mussolini and the fascists held that the government and the collective were more important than the individual (Horgan, 2010). As fascism failed, the first Reggio Emilia educators looked to the importance of the individual, more particularly, the child. They recognized that children were part of their community and capable of creative thought and communication. Foremost, these educators and mothers shared a deep belief that the child is capable and strong and that children should take a role in shaping their own education. They would become protagonists in their own learning (Edwards et, al., 1998). Reggio Emilia educators have made a choice to define children as
competent and rich, possessors of values and meanings, and holders of rights as citizens who
deserve to realize their potential. According to Malaguzzi, one's image of the child is where
teaching begins:

It’s necessary that we believe that the child is very intelligent, that the child is strong and
beautiful and has very ambitious desires and requests. This is the image of the child that
we need to hold. Those who have the image of the child as fragile, incomplete, weak,
made of glass, gain something from this belief only for themselves. We don’t need that
as an image of children. Instead of always giving children protection, we need to give the
recognition of their rights and of their strengths. (p. 61)

The image of the child in Reggio Emilia has evolved out of early childhood educators’ collective
experiences and of constant re-examining their understandings of different theories (Filippini,
1998). From early in life children are curious and seek to discover meanings, create relationships,
communicate with others, and negotiate with objects and ideas the culture brings to them through
their social and physical world. In addition to these core beliefs about what children are capable
of, educators in Reggio Emilia schools see children as moral agents who are active in the
construction and determination of their lives and actors in their own socialization and knowledge
building processes. Children’s actions can be understood as more than stock reactions to the
social environment; they should be considered as mental constructions developed by the child
through social interaction (Rinaldi, 2006). Reggio educators believe that because children are
innate and natural learners, they need to enjoy being in school, they need to love the interactions
that take place there. According to Malaguzzi (1994), both children and adults need to feel active
and important. Educators should create contexts in which children learn by themselves and use
their knowledge and resources autonomously so that children become the authors of their own
learning. In this way, children are far from being seen as passive subjects in social structures and
processes (Malaguzzi, 1998).
2.3.2. Progettazione.

In Reggio Emilia, the relationships between children become a context in which the co-construction of theories, interpretations, and understandings of reality can take place (Rinaldi, 1998; Rinaldi, 2006). Based on this idea, the Reggio educators created their own ways of planning curricula, in which the teachers lay out general educational objectives but do not formulate the specific goals for each project or each activity in advance (Edward et al., 1998; Rinaldi; 2006). Instead, teachers generate hypotheses about what might happen or emerge based on their knowledge of the children and of previous experiences. Educational objectives are flexible and are adapted to the needs and interests of the children. This type of planning is called Progettazione, the Italian term used by Reggio Emilia educators. Planning without a preconceived objective is connected to the relationships between teachers, children, and the social network (New, 1998; Rinaldi, 2006). In the English-speaking world, it is called “emergent curriculum, projected curriculum, or integrated curriculum to describe an overall way in which the Reggio teachers plan and work with children” (Rinaldi, 2006, p. xi). According to Rinaldi (2006), “progettazione is a strategy, a daily practice of observation–interpretation–documentation” (p. 206). The goal is to allow the child to make choices, communicate those choices, and receive feedback from others. Rinaldi (2006) stated that, “children who grow up together at school seek the opinions of their friends and stimulate their friends to express their own point of view” (p. 206). In this context, the role of the teacher is to support cognitive and social dynamics while they are in progress. The teacher always remains an attentive observer. “Instead of formal teaching of a predetermined curriculum (writing, reading, counting, etc.), to be evaluated using some testing procedure, both teachers and children document their own daily activities and learning in symbolic systems with which they are comfortable” (Rinaldi, 2006, p. 206). The teachers' observations and documentation are taken to colleagues for group reflection.
Teachers’ documentation stimulates teachers’ self-reflection and produces discussion and debate among the group of colleagues. Ideas among colleagues are as important as those that take place among the children. The group discussions serve to revise the teachers’ thoughts and hypotheses about the children and interaction with them. Therefore, “progettazione is a way of thinking, a strategy for creating relations” (Gandini & Kaminsky, 2000, p. 133).

Argument and conflict play a primary role in this system, as Progettazione brings out the important parts of individual thought and gives new meaning to the knowledge-building process. This is because knowledge develops much more within a context of diversity than homogeneity. In other words, the educational institution in Reggio Emilia is based on the premise that knowledge is a co-constructed and socially negotiated product, which occurs within a historical, cultural, and political context (Malaguzzi, 1998). It emphasizes the role of a child’s cultural, social, and physical environment in the development of an educational curriculum. All of these potentials are expressed and achieved within a group-learning context:

The construction of knowledge is a group process. Each individual is nurtured by the hypotheses and theories of others, and by conflicts with others, and advances by co-constructing pieces of knowledge with others through a process of confirmation and disagreement. Above all, conflict and disturbance force us to consistently revise our interpretive models and theories on reality, and this is true for both children and adults. (Gandini & Kaminsky, 2006, p. 132)

Thus, progettazione is carried out in dialogue between children and educators. This learning is different from “old stereotypes that derive from a pedagogy and practice . . . which attempted to pour ideas into teachers to shape them, so that they could, in turn, pour ideas into children” (Gandini & Kaminsky, 2000, p. 133).
2.3.3. Pedagogy of Relationships.

The emphasis in the educational approach of Reggio Emilia is placed on seeing each child in relation to other children, teachers, parents, his or her own history, and the societal and cultural surroundings. Working in a small group context is essential:

It is a reciprocal relationship that creates a strong sense of solidarity and fosters organisational dynamics from which difference can emerge, and these differences in turn generate extremely significant acts of negotiation and exchanges. The relationships between children become a context in which the co-construction of theories, interpretation and understandings of reality can take place. (Rinaldi, 2006, p. 127)

Relationships, communication, and interactions support this philosophical underpinning. Rinaldi (2006) argued that all knowledge emerges in the process of self and social construction. “The relationships between children offer opportunities to lend and borrow ideas, whether the teacher is directly present or not, and for cognitive conflict, imitation and generosity” (Rinaldi, 2006, p. 127). In addition, the teacher must establish a personal relationship with each child and ground this relationship in the social system of the school. Rinaldi also argued that “to understand the child is a long and difficult job that we can only learn by working along with children, and this also means understanding ourselves in a new and different way” (pp. 127-128). Thus, children in Reggio schools are placed within the same class group for three years, promoting the development of strong relationships among children, families, and teachers. It contributes to a sense of community within the larger school setting (Edwards et al., 1998). Children benefit directly when teachers utilize their knowledge of children’s home and family lives to inform their group discussions. The collaboration among members of the teaching staff and the active partnership role with parents provides children with a culturally harmonizing model of adult cooperation and school community (Edwards et al., 1998).
Cooperative learning and the commitment to a cordial and collegial classroom environment are characteristics of the Reggio Emilia approach (Edwards, 1998; Forman & Fyfe, 1998). Rinaldi (2006) argued that “children need to be appreciated and to live within an educational context that encourages research” (p. 128). Reciprocal interactions between children and the teachers in the course of constructing knowledge are valued and encouraged. The role of the teachers as partners and co-learners is presented when children and teachers engage in collaborative learning during a project. “The school must be a place where the symbolic and value systems of the culture and the society are experienced, interpreted, created, and recreated by children and adults together” (Rinaldi, 2006, p. 128). In this context, a teacher denies a passive approach to knowledge; instead, he or she welcomes children’s different theories and ideas, and helps them construct knowledge and research together.

2.3.4. Environment.

Reggio Emilia educators have always been attentive to the subject of spaces and to the essential role of the environment in education. In the Reggio context, the environment is considered as a third teacher in children’s learning (Gandini, 1998; Rinaldi, 1998). By seeing the environment as a teacher, people begin to notice how our surroundings can take on a life of their own that contributes to children’s learning (Strong-Wilson & Ellis, 2007). Malaguzzi’s idea of “atelier as a place of provocation (1998, p. 73)” has challenged many Reggio Emilia teachers to re-examine every detail of the environment. Malaguzzi (1998) wrote:

We would have constructed a new type of school made of spaces where the hand of children could be active for “messing about”. With no possibility of boredom, hands and minds would engage each other with great, liberating merriment in the way ordained by biology and evolution. (pp. 73-74)

This notion encourages teachers to pay attention to the varied ways that the environment can be made to speak and invite interaction (Cadwell, 2003). When teachers see the environment as
central to learning, children become more aware of their surroundings. Bruner (1998) described the schools of Reggio Emilia as a “special kind of place, one in which young children are invited to grow in mind, sensibility, and in belonging to a broader community” (p. 13). Tarr (2004) defined the classroom environment as a public statement about the educational values of the institution and the teacher. “Arrangement of space—including desks, tables, materials available, and what is displayed on the wall—conveys messages about the relationship between teaching and learning, the image of the child held by the teacher” (p. 89). Thus, preparing an environment that provokes thought and discovery is critical because it allows the child to be actively engaged in the process of learning. Based on this idea, the space in a Reggio Emilia classroom encourages investigation and experimentation, and promotes relationships and collaboration within the group. When children interact with the materials, they become deeply sensitive to the natural, physical, and social environments in which they live. This space also gives children a sense of value and respect for their community and culture (Fraser & Getswicki, 2000); it also creates a relationship that offers a sense of belonging and inspiration. It is a place of encounter and dialogue with others (Rinaldi, 2006).

2.3.5. The Role of Teacher.

Reggio Emilia teachers explored the ideas of American philosophers Dewey and Hawkins as they developed a pedagogy of collaborative inquiry involving children as well as adults. At the same time, they explored Italian traditions of documentation and discussion, in which teachers observe, record, share, analyze, and debate their emerging understandings of children’s ways of thinking and learning and then share these understandings with others (Edwards et al., 1998). To support teachers as they try to understand children’s ways of thinking, artists are hired to give different perspectives on children’s creative and communicative potential (Edwards et al., 1998;
According to Tarr (2001), “the strong role of the arts in Italian culture is clearly evident in the place of the atelier, mini ateliers adjacent to each classroom and the role the atelierista plays in supporting children and the teachers in their work” (section 3, par. 5). These artists-in-residence developed partnerships with classroom teachers to work together to promote children’s ability to symbolically represent their ideas with clay, constructions, drawings, and paintings. Over time these symbolic representations were re-conceptualized by Malaguzzi (as cited in Edwards, et al., 1998) as among the “hundred languages of children.” “Children in the Reggio schools are learning to value their rich visual heritage and to become perceptually aware through the support of the environment designed for multi-sensory learning” (Tarr, 2001, section 3, par. 2).

According to New (2007), as teachers reflect on transcripts of children’s conversations and detailed expressions of their developing understandings, they create documentation. Their documentation represents their understandings about children’s learning, their questions about their own teaching, and potentialities and possibilities found in the process of learning. Thus, documentation became integral to teaching and learning, presenting socially and culturally constructed discourses, interpretations, and meanings of a group of learners (Edwards et al., 1998; Dahlberg et al., 1999; Rinaldi, 2001; Rinaldi, 2006; Tarr, 2010).

Rinaldi (2003) wrote, “the young child is the first great researcher. Children are born searching for and, therefore, researching the meaning of life, the meaning of the self in relation to others and to the world” (p. 2). Rinaldi (2003) continued, saying, “they can transmit to us the joy of searching and researching, the value of research, as an openness toward others and toward everything new that is produced by the encounter with others” (p. 3). The ideas of teacher as researcher and of school as a place of research and participation are emphasized in a process of shared construction of meanings in the Reggio context. Rinaldi claims that children appreciate
that their teachers are side-by-side with them in the search for answers. In this way, each child feels her or his own sense of wonder and delight in discovery is respected. Thus, Rinaldi (2003) emphasized the concept of the teacher as a researcher among the many roles:

Idea of the teacher as researcher, of school as a place of research and cultural elaboration, a place of participation, in a process of shared construction of values and meanings. The school of research is a school of participation. (p. 3)

2.3.6. Inspirations of Reggio Emilia Approach on the Theory and Practice of Early Childhood Education.

The schools of Reggio Emilia have inspired early childhood educators all over the world to re-evaluate and revise their beliefs about young children and the nature of early experiences and learning that support children’s growth. Educators who have visited or studied the schools recognize the educational potential of the Reggio Emilia approach for children’s intellectual, creative, and social competence and for making strong links with parents, teachers, and the community. Educators have become intrigued with the Reggio Emilia philosophy because it seems like a natural extension of the philosophy already prevalent in many early childhood practices. For example, according to Goldhaber (2008), “it is perhaps ironic that we had to go cross the Atlantic to rediscover Dewey” (p. 179), who argued that good schooling based on inquiry and discovery is fundamental to the cultivation and maintenance of a democracy. Goldhaber (2008) argued that we need to recognize our own cultural history so we can question our values and recover “our own educational legacy” (p. 179). Reggio schools are constantly evolving in ways that continue to reflect their history, culture, and social values even as these are changing. The ideas of Reggio Emilia should inspire us to see our children’s competencies within light of our own values and our own hopes for the future.
The Reggio Emilia approach to early childhood education is not a recipe and not an easily convertible solution for school reform in any other country (Rinaldi, 2006; New, 2007). New (2007) asserted that there is not only danger in trying to imitate what we see in another cultural setting, but even more risk in believing that someone else can tell us what good teaching is all about. We have to discover this for ourselves. In a nutshell, the Reggio Emilia educational project is not a model; the pedagogy regarding teaching, learning, and development is rooted in a particular, even unique, context (New, 2007). The Reggio Emilia educational project itself is a provocation to early childhood educators and researchers elsewhere, a challenge for us to look upon our own cultural environments, our values, and our expectations in order to develop our own educational projects. Thus, what we are gaining from Reggio Emilia is passion for a process that acknowledges our need to engage in a cooperative learning journey with others, both children and adults. As a consequence, we need to think with great effort about our values and treasured beliefs, and reflect more critically on our practices in early childhood education and curriculum.

2.4. Conclusion

In this chapter, I explored some concepts of Deleuze and Guattari, which are especially relevant to my study. These concepts provide insight into children’s rhizomatic ways of thinking and learning. The concept of nomadic thinking can be insightful in describing how children’s ideas and narratives are continuously created and developed through relations and encounters. As well, the concept of rhizome interprets children’s learning processes as explorations of moving toward new understanding, shooting in all directions. Rhizome is a valuable concept for my study, since it explains children’s complex and dynamic ways of thinking and learning. It
challenges us to embrace the unpredictability and uncontrollability of children’s learning and helps us to follow children’s desires and interests.

I also explored how the concepts of assemblage of desire and affect explain the dynamics of small group working. They illuminate the social nature of children’s learning. The concept of transcendental empiricism accounts for collective experimentations in which children engage. The concept can be used to explain the role of children’s ideas and narratives as they weave in and out of early childhood curriculum. Children experiment through encounters with ideas, materials, and environments in unexpected ways, producing new relations and connections, and creating lines of flight.

In my work, the philosophical principles of the Reggio Emilia Approach bring theory and practice together. The children’s nomadic thinking and rhizomatic learning processes became visible to me through the pedagogical documentation I kept. After exploring the philosophical concepts of Deleuze and Guattarri, and the principles behind the Reggio Emilia approach, I recognize common elements in these two ways of thinking about learning. In both theories, knowledge is seen as becoming and transforming with unexpected connections and relations that can be viewed as rhizomes or a tangle of spaghetti. The pedagogy of listening in Reggio Emilia settings and Deleuze and Guattari’s preoccupation with following lines of flight demonstrate that both value encounters and otherness in learning. The pedagogy of relationships in Reggio philosophy, which emphasizes connections and relations in learning, is similar to the assemblage of desire put forward by Deleuze and Guattari.

In Chapter 3 I explain in detail how I employed a pedagogy of listening and also pedagogical documentation as methods for following children’s complex and dynamic ideas and narratives as they emerged through the children’s assembled desire. Using a pedagogy of listening I responded to the children’s interests and prepared materials and environments so
children were able to deeply engage with and extend their ideas. The children’s learning was enriched by social connections and intra-actions with materials and the environment. I used pedagogical documentation for interpretation, reflection, and sharing, making learning visible, and showing how the children’s understandings evolved as they worked with ideas through the assemblage of desire.
PROVOCATION 3: MINT STORY

Ella: We painted mints together.
The Mints story is about lots of mints flying into the house to hide from people who scare them away so that they fly away into the house and quickly hide.
If people found them, they go "ah" and they got scared and then, they fly away from the people and got lost and they don't know how to get out.
Then, they found the way home.
Do you know how they found the way home? They flew way up in the sky, and they found the way, and then they are back into the forest, find their way home.

Tera: There are big trees in a forest.
This is a really big, gigantic tree.
The big tree has a lot of branches.
Some trees are black because they got some ink.
There is a baby tree in the forest.
The baby tree has lots of leaves too.
Mints live in the forest. They live on the baby tree.
I saw green mints and purple mints in the forest.
They can fly up to the sky.
They are flying in the forest.
They fly and go into the people's houses.
They give their colours to people.
They are all the colours in the world.

Tina: Mints, they fly in the sky and flipped and they fall. They tripped in the sky and they fall. They go into the house and they stay inside.
Cadwell (2002) stated that children learn to enter into and enjoy an open dialogue both with their experience in the world and with a particular material. The provocation describes the movement of the children’s thoughts (thoughts were picked up, exchanged, and evolved) and stories about their unique experiences of the forest. Painting space has been transformed to story-making space. Thoughts were entangled and evolved through connections in the course of a collaborative painting. According to Deleuze and Guattari (1987), encountering with thoughts created interesting connections and new ideas. These connections create *lines of flight*.

Young children inhabit the space by continuously constructing places (imaginary and real) within the place in which they are situated. According to Ceppi and Zini (2003), just a few elements and objects are enough for creating a variety of situations and landscapes: artificial light sources, slide projectors, and overhead projectors. As such, teachers should take this into account to provide environments that meet children’s desires and help their abilities grow. Therefore, the quality of the space can be explained in terms of cultivating connections and relationships. The event of collaborative painting here has transformed the general conception of painting. It became a place for dialogue, transformation, and invention.
CHAPTER THREE

RESEARCH METHOD AND DESIGN

How can we help children find the meaning of what they do, what they encounter and what they experience? How can we do this for ourselves? These are questions about the search for meaning that influence the development of our identity. Why? How? What? I believe that these are the questions that children constantly ask themselves, both in school and outside of school. We don’t have to teach them to ask “why?” because inside each human being is the need to understand the reasons, the meaning of the world around us and the meaning of our life. We believe that it is important to try to reflect on the children’s questions and understand why they are asking why. What are their connections? What are their reflections? Why do they ask this why? Children ask “why?” not only when they speak directly but also through the hundred languages. There is a mix of practical and philosophical concerns in their questioning attitude, in their effort to understand the meaning of things and the meaning of life. (Rinaldi, 2004)

In my study, I explore the problem of how to work with children’s ideas and narratives in early childhood education practice and research. As a case study, I describe events with one group of children who attend a particular children’s centre. I investigate non-traditional approaches to children’s narratives in relation to thinking differently about early childhood education. I draw on data generated in a collaborative inquiry, in which I worked closely with the children and their teacher. In the case study, an understanding of the complexities of the children’s learning processes is built by exploring their ways of thinking, processing ideas, and making meaning.

Through my time at the children’s centre, I worked with four-year-old children: Sarah, Ella, Tina, Tera, Hailey, Venice, May, James, Jason, Chris, Brian, and Scott. In particular, Sarah, Ella, Tina, and Hailey were the main participants in my study and they have known each other since they were infants. Although, the children’s relationships and interactions were constantly changing in the dynamic classroom, the children spent the majority of their time with same-gender peers.
Over a period of 16 weeks, the children, the teacher, and I engaged in a co-inquiry regarding “forest.” We participated in experiments and exploration together. As the researcher, I paid special attention to the role the children’s ideas and narratives played in the process of learning and meaning making as the children encountered a forest. The children’s narratives became central to this study as they allowed me to see important possibilities for understanding how children make meaning. The narratives provided valuable insights into the children’s complex learning processes. I used photographs and other visual images also to understand that which is nonverbal and multidimensional in children’s interactions with each other and the environment. I observed activities and made field notes as well as audio recordings. From the data I collected, I then constructed pedagogical documentation (Dahlberg, Moss, & Pence, 1999).

I employed a qualitative research approach since my intention was to create a holistic picture of what was occurring in the particular setting. Qualitative research methodology, as I employed it, reflected the following elements: (a) a natural setting was used as the direct source of data; (b) participants influenced the interpretation of outcomes; and (c) findings were analyzed according to emergent events (Gall, Gall, & Borg, 2007). In particular, my primary method was that of participant-observation based on a case study, using 'pedagogy of listening' as a research tool. The design of this study was exploratory, descriptive, and interpretive in nature. According to Freebody (2004), “the goal of a case study, in its most general form, is to put in place an inquiry in which both researchers and educators can reflect upon particular instances of educational practice” (p. 81). Stake (1995) stated that observation is the principal method of data collection in case study and that observation continuously moves the researcher towards a greater understanding of the case.
Guided by my research questions, I explore in this case study the connections and relationships children created in the forest over the four-month period. I followed their ideas and narratives. I also explored the possibilities for listening as pedagogy. Using children’s own ideas and narratives as the essential pathways winding through their experiences with a project, I investigated children’s emerging understandings as they explored phenomena and interacted with each other. These are specific questions that guided this study:

1. What happens when researchers and teachers follow children’s ideas and narratives through the philosophical lens of Deleuze and Guattari?
2. How can a pedagogy of listening be understood as a way of co-constructing curriculum with children? What is the impact of a pedagogy of listening on early childhood curriculum and teaching?
3. How can a teacher support the creation of learning contexts that will enrich and extend children’s thinking and learning?

3.1. Participant Observation and Pedagogy of Listening

My rationale for becoming a participant in the exploration was that I wanted to interact with the children on a daily basis in order to understand what was happening in their lives at the centre; and second, I wanted to explore the collaborative meaning-making process and emerging understandings around the forest the children were investigating. The aim of “participant observation is to learn about the other by participating in his or her everyday life” (Warming, 2005, p. 51). According to Warming (2005), the participant observation method has great potential for listening well to children because it allows researchers to study children’s interactions with each other, and with their teachers and their physical surroundings. In contrast, “interviews would only allow me to study narratives about these interactions, producing a
construction of children’s cognitive perceptions contextualized by the interview process itself” (p. 54).

While participant observation is the dominant methodological tool in the study, it is not the only tool I used. I supplemented my observations with pedagogical documentation, as understood by followers of the Reggio Emilia approach to early childhood education (Dahlberg et al, 1999; Fraser, 2006; Olsson, 2009; Lenz Taguchi, 2010; Tarr, 2010). According to Tarr (2010), documentation “situates teachers in the position of researchers of themselves and of the children whose lives they share” (p. 10). Tarr (2010) also asserted that “the idea of documentation as beginning with curiosity opens up the purpose of the observation and moves it away from looking for the expected with a predetermined goal of how does this child or the learning demonstrated, fit with norms or expectations” (p. 11). In relation to the purpose of my study, I employed pedagogical documentation as a tool to ensure I was listening to the children’s ideas and narratives without setting a predetermined goal for the children’s learning. From this perspective, I used pedagogical documentation not only to make visible the processes of the children’s learning, but also to show how the teacher and I made choices and supported the children to enrich and broaden their understandings.

In this study, listening plays a significant role. There are different ways in which researchers employ listening as a method (Clark, Kjørholt, & Moss, 2005). Researchers use listening as a tool to learn about children and their culture. Researchers also use listening in order to give voice to children, part of the basic ethos of the childhood research paradigm (James et al., 1998; Christensen & James, 2000). “The democratic ethos of giving voice is a powerful
philosophy in social and pedagogical work with children in Europe” (Warming, 2005, p. 52), and listening carefully to children is at its heart. Warming (2005) pointed out the distinction:

That listening as a tool and listening as constituting a basic ethos of giving voice are not necessarily the same, and may even be in conflict with each other. Giving voice involves listening, whereas listening does not necessarily involve giving voice. Listening as a tool requires hearing and interpreting what you hear, whereas giving voice further requires ‘loyal’ facilitation and representation, making a common cause with the children. (p. 53)

These two different characteristics of listening play important roles in this study, firstly to understand and explicate young children’s perspectives and experiences, and secondly, to explore the role children’s thoughts and narratives play in children’s learning processes. By employing a “pedagogy of listening” (defined by Rinaldi, 2006, p. 65) in order to attend to young children’s ideas and narratives, I sought to understand the ways they generate hypotheses and build their theories, both critical processes in children’s learning. According to Rinaldi (2001),

understanding means being able to develop an interpretive theory, a narrative that gives meaning to the world around them . . . these theories are extremely important in revealing how children think, question and interpret reality, and their own relationships with reality and with us. (p. 2)

Dahlberg and Moss (2005) echoed this belief when they stated, “listening to thought is about being able to hear the ideas and the theories of the Other, and to treat them seriously and with respect, neither ignoring them nor dismissing them for not providing the right answer” (p. 99).

According to Rinaldi (2006), “listening is an active verb, which involves giving an interpretation, giving meaning to the message and value to those who are being listened to by others” (p. 65). Listening means being open to the other and recognizing the other’s differences from one’s own position and experiences. “It means listening to thought—the ideas and theories, questions and answers of children—and struggling to make meaning from what is said, without preconceived ideas of what is correct or valid or appropriate” (Dahlber & Moss, 2005, p. 100).

This perspective accords children their autonomy, and it does so by looking at them as the direct
and primary entity of study (Greene & Hogan, 2005). A pedagogy of listening is a “move away from monologic transmission as well as from the idea of just paying attention to determining the conditions for the child’s reception of teacher’s transmission, which is so common on the school agenda today” (Dahlberg & Moss, 2005, p. 101). I used a pedagogy of listening to welcome and respect alterity in children’s thinking, paying particular attention to how to relate to children in a responsive and respectful way. Thus, a pedagogy of listening guided me to capture the complexity in children’s ideas and opened up for new possibilities for seeing how they created lines of flight.

3.2. Pedagogical Documentation as Visible Listening and Assessment

3.2.1. Pedagogical Documentation As Visible Listening.

Documentation is an integral part of the learning and teaching process of the children and teachers in the children’s centre context. Pedagogical documentation, originally used in the early childhood programs of Reggio Emilia in Northern Italy, is one method used to capture children’s learning experiences (Cadwell, 2003). The Reggio Emilia process of documentation involves the use of concrete artifacts, examples of the children’s work, and uses collaborative re-visitation, interpretation, and negotiation by children, teachers, and parents to promote dialogue and reflection (MacDonald, 2007). Although it originated in Italy, many contemporary early childhood practitioners use pedagogical documentation to record understandings about children’s thinking and learning (Dahlberg, Moss, & Pence, 1999; Grieshaber & Hatch, 2003) and many educators throughout the world discuss the uses of pedagogical documentation. In this study, documentation is a tool for visible listening that makes visible the children’s learning path and process (Dahlberg et al., 1999; Giudici, Rinaldi, & Krechevsky, 2001; Rinaldi, 2006; Olsson, 2009; Lenz Taguchi, 2010; Tarr, 2010; Fraser, 2006).
Rinaldi (2006) stated about the purposes of documentation in early childhood research and practice,

To ensure listening and being listened to is one of the primary tasks of documentation . . . as well as to ensure that the group and each individual child have the possibility to observe themselves from an external point of view while they are learning (both during and after the process). A broad range of documentation (video, tape recordings, written notes, and so on) produced and used in process (that is, during the experience) offers the following advantages: It makes visible the nature of the learning processes and strategies used by each child, and makes the subjective and intersubjective processes a common patrimony. It enables reading, revisiting and assessment in time and in space, and these actions become an integral part of the knowledge-building process. (p. 68)

Reggio educators have been described as philosophers of childhood, collectively creating a framework for theory and practice based on deep respect for and sensitivity to the capacities and interests of young children (Kennedy, 1996). Educators in Reggio Emilia see themselves as building knowledge through careful documentation of children’s experiences. They are collectively engaged in an ongoing process of posing hypotheses and gathering data through careful observation, documentation, and interpretation. In this way, they use practice to create theory (Krechevsky & Stork, 2000). The practice of documentation is based on social constructivist theories that frame children as creators of knowledge who have powerful potential for theorizing and conceptualizing (Malaguzzi, 1998).

In many modern perspectives, teachers and researchers observe a child through the lens of developmental theory and cognitive and social growth, explained in terms of scientific concepts and classifications. In this view, learning involves the transmission of knowledge, leading the child to preordained outcomes (Dahlberg et al., 1999). In contrast, Reggio educators treat children as co-constructors of their own knowledge, as critical and imaginative thinkers, and as decision makers. In this regard, documenting children’s learning processes is valuable since it respects the subjectivity of the learner, which is important in terms of articulating one’s values and one’s relationship to social policy and culture (Rinaldi, 2006).
Moreover, documentation makes visible children’s search for meaning. Rinaldi stated, “the search for the meaning of life and of the self in life is born with the child and is desired by the child. This is why we talk about a child who is competent and strong” (p. 64). Therefore, documentation is “so powerful in revealing the ways in which children think, question, and interpret reality and their own relationships with reality” (Rinaldi, 2006, p. 48). Given this fact, documentation does not mean a final report. It is a process of making visible how children explore and learn and how they make sense of the world. In short, “the experience itself is distinguished by its strongly research-oriented nature and by its observation and documentation of children’s thinking and work” (Rinaldi & Piccinini, 2012, p. 358). Thus, the forms and methods of documentation are constantly reshaped depending on the learning context.

### 3.2.2. Pedagogical Documentation as a Tool for Assessment.

Documentation as visible listening offers the act of reflection, creating a community based on inquiry (Gandini & Kaminsky, 2004; Rinaldi, 2001). Documentation as a pedagogical tool allows for an expansion of the role that assessment plays in understanding children’s learning, particularly young children whose understandings are less easily captured by standardized tools. According to Rinaldi (2006), “assessment is an intrinsic part of documentation” (p. 72), a visible trace and procedure that supports learning and teaching. Knowledge is the construction of meaning, and learning is the process of construction based on relationships and listening. Learning is made visible and supported through the process of pedagogical documentation. Rinaldi (2006) argued that “recognizing documentation as a possible tool for assessment/evaluation gives us a strong ‘antibody’ to a proliferation of assessment/evaluation tools which are more and more anonymous, decontextualized” (p. 62), and designed to be objective.
Digital images enable teachers to look and listen for differences and possibilities (Rinaldi, 2001). When teachers take time to look closely at a child’s process of learning, then they are able to reflect on their teaching. Photographic material can serve as an important source of data “worthy of analysis” rather than just for descriptive purposes (Ball & Smith, 1992, p. 14). The camera becomes an instrument for collecting information and gives evidence of the observations made by the researchers (Harper, 2000). Careful analysis of photographs deepens understanding among the viewers, stimulates “a dialogue with multiple interpretations, raise[s] questions, and position[s] teachers to reconsider their approach” (Moran & Tegano, 2005, p. 2). Documentation allows educators to see, revisit, and go back to moments (Gandini & Kaminsky, 2006; Hong & Trepanier-Street, 2004).

Rinaldi (2006) argued that “documentation not only lends itself to interpretation but also is itself interpretation. It is a narrative form . . . because it offers those who document and those who read the documentation an opportunity for reflection and learning” (p. 53), consisting of the richness of questions, doubts, and reflections that underlie the collection of data. Therefore, pedagogical documentation is about what is going on in the pedagogical work and what the child is capable of without specific criteria relating to standardized expectations and norms.

Thus, pedagogical documentation can be used for supporting critical and reflective practice. Dahlberg et al. (1999) stated that “through documentation we can more easily see, and ask questions about, which image of the child and which discourse we have embodied and produced, and what voice, and rights and position the child has got in our early childhood institutions” (p. 153). They (1999) continued by saying that documentation represents a choice: “when we document we are co-constructors of children’s lives, and we also embody our implied thoughts of what we think are valuable actions in a pedagogical practice” (p. 147).
Finally, the use of documentation involves a re-evaluation of practice and philosophical commitments. In my study, the teacher and I revisited the ongoing documentation with the children so that they could review their previous ideas and what they did before. This helped the children engage with their own ideas deeply and became inspirations for further learning. Teachers need to focus on the process of learning as well as the outcomes (Gandini & Kaminsky, 2004). For these characteristics of documentation, I created and used the pedagogical documentation as a visual listening to the children’s thoughts and narratives for my study. Through the documentation, the teacher and I were able to share our reflection on the children’s learning and follow their meaning making processes.

3.3. Research Context, Participants, and Representation

The philosophy of the childcare centre is inspired by the Reggio Emilia Approach. The centre is located in a university as a part of lab school in the Lower Mainland of British Columbia. The decision to carry out the study in a classroom of a Canadian childcare centre was based on an invitation from one of the faculty members who works in early childhood education and research, so I knew there was already interest in research of the kind I proposed, as well as project-based curriculum. I, in my case study, explore the children’s ideas and narratives and examine the teachers’ roles in the learning processes. Along with the teachers, I was committed to examining children’s emerging understandings and artistic experiences while they engage in a project around and within a forest.

The forest project began with teachers noticing that the children had created special connections and relationships to some places in the nearby forest. These encounters within the forest became a starting point for the project. The children and teachers explored the forest and created interesting ideas and concepts, and beautiful stories that became the focus of my study.
Four girls are the main participants in my study. The main teacher with whom I had worked during the study is very familiar with Reggio-inspired emergent curriculum. She has been using pedagogical documentation as a method for teaching and learning in her classroom practice for years. This classroom teacher worked with me as a co-researcher in the children’s learning processes, and since we worked as partners throughout the project, on many occasions I decided to use ‘we’ in representations here.

The children participated in this study during their regular hours at the childcare centre. Pedagogical documentation was already a part of the regular pedagogical practice at this childcare centre. The elements of observation, interpretation, and documentation are strongly connected. Rinaldi (2004) stated,

> It is impossible to observe without interpreting because observation is subjective. It is impossible to document without interpreting, and it is impossible to interpret without reflecting and observing. When you choose something to document, when you take a photograph or videotape an experience, you are making a choice. That means that you are giving value or evaluating this experience as meaningful for the children’s learning processes and for your learning processes as well. When you document, you are sharing the children’s learning and your own learning . . . what you understand, your perspective and also what you value as meaningful. Within the word “evaluation,” there is the word “value.” Valuing means giving value to this learning context, and to certain experiences and interactions within that context. This is what we offer to the learning processes of the children and to those of our colleagues. (p. 4)

Therefore, what I have documented shows not only the children’s thoughts, narratives, and learning processes, but also the choices the teacher and I made, my values, and hers. Within this study, as a collaborative inquiry, we enacted methodologically through pedagogical documentation in an effort to create opportunities where the researcher and the teacher become participants in children’s learning processes. During the project, the teacher and I constantly discussed the children’s learning processes; together we reflected on the children’s thoughts and ideas, and we thought about how we could help the children to find meaning in those complex moments.
For the study, I visited the childcare classroom four days a week during the project, *Forest*. My observations focused on the interactions that occurred between the teacher and children, between the children and myself, and between the children. I also recorded the children encountering the forest and interacting with materials in and outside of the classroom. The combination of field notes, and audio recordings of conversations added to these descriptions of both verbal and non-verbal interactions and details on all the dialogues between the teacher and children and among the children themselves. The teacher and I had a brief meeting every morning to discuss the events and experiences from the previous day that might shape what was to come. We constantly shared and exchanged our ideas and reflections during the day. Mainly we talked about children’s ideas and stories that we found especially interesting and discussed how we could better support and facilitate children’s learning. The teacher and I also met once weekly with a pedagogista and an artelierista who work with the teachers and the children to discuss and share reflections on their learning. These individuals offered another set of perspectives on what we were seeing in the classroom. The pedagogista directed our attention to the scaffolds we needed to build between children’s present understandings and future discoveries, while the atelierista led us to more clearly see the aesthetic dimensions of children’s interactions with each other and their intra-actions with materials and the environment.

The teacher and I were involved in an analysis of the events of practice. For example, we prepared materials and environments where children’s multiple ideas could come to life. I used my documentation (e.g., photographs and notes) as a way to revisit particular moments with the children and the teacher.

I selected the research participants through convenience sampling based on inclusion criteria. Convenience sampling is widely used in educational qualitative studies, and helps researchers find appropriate participants in a timely manner (Gall, Gall, & Borg, 2007). The
The inclusion criteria for the sample were (a) children in a class of four-year olds (b) children whose parents submitted consent forms for participation; and (c) children’s assent.

I organized daily field notes chronologically and collected the teacher’s notes. I audiotaped children’s verbal communications of ideas and took pictures of their graphic representations as a visual record of the setting, artworks, and participants through the processes of learning. I documented the children’s thoughts and narratives in order to follow their interests and desires. I believe that children have things to tell one another and adults, and that children can best express themselves in a context where they feel welcomed and respected. When the children know we respect their ideas, they also share with us what they have done and what they want to do next. I believe that teaching and learning should start by respecting children’s intentions and being open to many possibilities. I tried to make the children feel respected and safe, so that they would be willing to share ideas with us. One of the methods I employed to help the children feel more comfortable sharing was the choice of a 'snowball' microphone, which had instant appeal. The children immediately wanted to express their ideas, stories, and songs to the 'snowball.'

I reflected on my field notes and photographs after every visit, organizing them for data analysis and planning for ways to use them for further learning. The teacher and I shared our reflections with each other and we discussed how best to support the children. On many occasions, we shared our reflections with the children too. To revisit moments of practice, we used pedagogical documentation of the children’s work that included drawings, paintings, and constructions along with their ideas and stories. Because documentation makes children’s learning visible, the teacher, researcher, and the children were able to reflect upon the learning process together. ‘Documentation’ gave the children opportunities to revisit their previous ideas. The process of recalling prior moments with the children helped us to recognize, and respond to
It helped us to pay attention to what the children were interested in and how they interacted with each other and 'intra-acted' with materials and their surroundings. According to Olsson (2009), a line of flight can be created through pedagogical documentation. “Through the documentation new ideas and actions may take form. This differs from rigid line of observing children through the lens of normality or spying on them with the ambition to check that they are following a normal trajectory” (pp. 73-74). Collecting data, creating documentation based on reflection, and sharing the documentation with the teacher and the children assisted me in understanding what the children were trying to learn and discover. In this way, I was able to respond to the children by building on their interests and ideas instead of imposing my own aims on them. This was especially the case with the forest project, which was carried out following the children’s ideas and narratives, and without formulating specific goals in advance. Thus, using documentation during the learning process was significant for my study because it guided my observation and my preparation for further encounters.

3.4. Background of the Study

At the outset of the study, I visited the childcare centre to meet with the teacher and the children to get some sense of regular classroom routines and have a chance to introduce myself to the children. The teacher told me that the children had been working on a forest project since September, and it was still going on in January. She also explained to me how the forest project was initiated. There is a forest nearby the children’s centre, which the children visited regularly. This project began when the teachers in the centre realized that the children had created special connections and relationships with the forest as they spent greater amounts of time exploring. So the forest project was being carried out in all the classrooms in the childcare centre. Due to the
pedagogical documentation created by the teacher, I was able to view some of the children’s previous explorations and learning as they encountered the forest.

Personally, the forest was an unfamiliar setting and a somewhat mysterious place. While I was observing the documentation, I tried to think about my own images of ‘forest’: many trees, narrow paths, birds, rocks, green vegetation, fresh air, shallow streams, and small animals. I also thought of my feelings about being in the forest: refreshing but unfamiliar, dark, and somewhat scary and unsettling. I began to wonder about how the children thought about being in the forest and how their experiences there had shaped their understandings of wild places or natural landscapes. My desire to know about the project and the children’s experiences grew as I read the teacher’s reflection on the project, which was displayed on the wall in the hallway. The teacher’s narrative, written on a documentation panel, helped me understand the background of the project and connect more vividly to the forest as the children and the teacher experienced it:

**In Dialogue with nature**

*What does it mean to be in dialogue with nature? What do we look for? We ask ourselves this question as we take regular trips to the forest.*

*As the children along with the teachers spend greater amounts of time in the forest exploring, we as educators are curious to engage with what they visit over and over again, hoping to get a better understanding of what it means to be in dialogue. After observing them for about two months we realize that the children have created special connections and relationships with three spaces in the forest—their workshop where they work with sticks, sawing, drumming, poking and so on. “I’m sawing”, “I’m doing my work”, “These are my hammers”, say the children as they are in their forest workshop. Secondly, the rainbow tree which is set further into the forest and the children have secret pathways to get to it and only they know how to get to it!” “This is the path, follow us,” “we are almost there,” “this is the rainbow tree, we found it!” When asked why it was called the rainbow tree, they excitedly reply, “Because it’s shaped like a rainbow, see!” Thirdly, the climbing tree which invites the children to climb up to the top. As the children explore this tree they engage with the idea of transformation. The tree invites them to swing from the branches and turn into banana eating monkeys. “We want to be monkey’s and we want to swing from branches.” “This is our forest and we can climb up the trees.” As they climb up the tree, “I’m a monkey, oo, oo, ah, ah. I’m swinging from trees; this is
fun! I’m going to get some bananas.” The climbing tree encourages the children to investigate the relationship between their bodies, the tree branches and the other children in the trees!
This makes us think of the forest as a place of many possibilities, a place that invites fantasy and imagination.

The teacher’s reflection and commentary on the project along with steps in the children’s learning process and photographs of their activities were presented on a carefully designed wall. Through the teacher’s documentation, I noticed that the children had created special connections and relationships with places in the forest. The place itself invited their fantasies and imaginative play. The teachers also viewed the forest as place of many possibilities. I started to wonder about the children’s dynamic relationships with the forest. This question soon became the motivation for my study. After reading the documentation, I came up with many questions: What understandings and perceptions have developed for the children, what stories have been created from their experiences, what phenomena and relationships have the children discovered, and what kinds of connections have they made with the forest? Finally, what do selected and named places like the rainbow tree or the climbing tree mean to the children? I wanted to know more about the children’s wondrous forest experiences. And I could not wait for my journey to begin.

By using a pedagogy of listening and pedagogical documentation (Rinaldi, 2006), I explored the children's nomadic thinking processes around a forest project and made visible their perspectives, ideas, and theories developed during the process of learning. The teacher and I worked as co-researchers exploring how the children worked with their own ideas as a group. We supported the children’s learning through a pedagogy of listening to enrich and broaden their understandings as they encountered a forest.
3.5. Classroom Environment

The main teacher I worked with for my research has been using pedagogy of listening and pedagogical documentation as everyday practice and draws on theories from the Reggio approach. As such, the teacher saw one of her roles among many in the Reggio Emilia approach is a “teacher as a researcher” (Rinaldi, 2006). The teacher saw herself as a researcher in terms of searching for children’s ideas and interests and used them in planning and preparing materials and environments. This enabled us to build a pedagogy that built relationships and shared understanding on teaching and learning. Thus, the teacher and I worked together as researchers, giving the children opportunities to explore the forest, work with their own ideas, and make meanings from what they were interested in.

In this classroom, the daily routine included group time, free play, snack time, and outside play. There was no rigid schedule that was followed every single day. The routine was flexible and adapted itself to children’s attention spans and interests. Projects were ongoing throughout the year. The moment I walked into the classroom, I felt like I was in the middle of a miniature forest. There were many natural materials available for the children to use. The environment was set up in a way to enrich children’s exploration of a forest. The environment supported the children’s ongoing project on a forest by having natural and art materials available for the children at their level so they were able to get the materials they needed. There was a small room inside the classroom stocked with a vast assortment of materials and recycled items to support the children’s inventiveness and creativity. The materials were readily available and could be used at any time. Teachers rarely used pre-cut shapes or ready-made drawings (or their own) as models or templates. Instead, the main teacher told me she wanted to help children to reflect on their thinking and find resources for themselves. The natural materials from the forest were brought into the classroom and the teacher encouraged the children to use them to express their ideas. She
placed value on having many natural materials visible and accessible such as pinecones, sticks, leaves, rocks, tree stumps, branches, and clay. The materials were kept in glass jars or woven baskets that sat on the shelves. Most materials for drawing and painting were available on the table in the classroom.

The classroom walls were filled with documentation of the children’s explorations, such as children’s drawings and paintings of different kinds of trees and leaves. This helped remind the children of their past ideas and theories and helped them build on more ideas through further explorations. The room itself provided visual stories of what the children had worked on. In this way, the ideas and exploration of the forest stayed with the children in the classroom. Clay structures of trees and rocks created by the children were displayed on the shelves and tables in the classroom. According to the teacher, the teacher put out clay everyday because almost all the children liked working with it regularly. The layout of the room and the placement of materials allowed children to have access to drawing and painting throughout the day. Also, the water table was set up with some different materials every day including leaves, rocks, and flowers, as well as some food coloring to add to the water. Photographs, in Figure 3.1, illustrate the way natural materials were presented in the classroom.
3.6. Analysis

I triangulated the data to secure the reliability of this study by using diverse kinds of data and by sharing data with the teacher and the children. I analyzed data using an interpretational analysis taken from Gall, Gall, and Borg (2007). As they define it, “an interpretational analysis is the process of examining data closely in order to find constructs, themes, and patterns that can be used to describe and explain the phenomenon being studied” (Gall, Gall, & Borg, 2007, p. 453). Such an approach is, in my view, the most appropriate for exploring children’s ideas and narratives and for understanding their perspectives and experiences, and how a teacher and researcher can support and provide a learning context to enrich children’s learning. Further, an interpretational analysis of this kind supports the close investigation of children’s ‘rhizomatic’ thinking, in which I wanted to engage. It allowed me to bring forward multiple illustrations of the
'lines of flight' that children created through their diverse and dynamic learning processes. In order to present the children’s rhizomatic learning processes, I analyzed the data as a series of “events,” one of the concepts of Deleuze (2004, p. 5). According to Olsson (2009), Deleuze introduced “the ideas of how to put to work the concept ‘event’ as another alternative and affirmative scientific method capable of accounting for movement” (p. 53). In the book, *The Logic of Sense*, his concept of the event is clarified. According to Deleuze (2004), the world is made of events. Events are happenings and becomings rather than things. Events are processes rather than substances. In my study, the children’s learning is made of a series of events. Their learning evolved through encounters with ideas, materials, and surroundings rather than pre-planned activities. Thus, it was becoming rather than completion of activities.

The following protocols guided the data analysis. First, I transcribed children’s verbal and nonverbal interactions during activities. Second, I examined children’s graphic representations (e.g., writings, drawings, paintings, sculptures, etc.) along with their own interpretations of what they had created and why. Third, I also analyzed the teacher’s reflections and my own reflections, as well as our documentation on children’s learning processes. Finally, I added my own narrative explanations to describe what the children said and did, and the reasons they offered for their actions and goals. According to McCadden (1998), academics often try to fit qualitative research into a scientific method structure rather than a more comfortable narrative structure. Stake (1995) also noted that a rich and thick narrative approach can provide information that will allow the reader to make his/her own interpretations and triangulations in case studies. Like McCadden (1998), I view qualitative research as a form of story rather than as a form of science. I believe that using the structure of story is appropriate for my study, for story seeks to make connections of experience between humans as subjects (Noddings, 1984; Coles, 1989; Siebers, 1992).
In addition, I attempted to write rhizomatically for research purposes. Stake (1995) asserted, “each researcher needs, through experience and reflection, to find the forms of analysis that work for him or her” (p. 77). As I mentioned earlier in Chapter 1, my research explores young children’s ideas and narratives that emerge within a learning group. My premise is that these ideas are not confined to one child but move between the children of the pair or group, shooting in all directions like a 'rhizome' and continuing to make connections and developing in multiple ways (Deleuze & Guattari, 1987). Thus, the figuration of a rhizome used to explore multiplicities in children’s thinking and learning was also used in my writings of following the children’s rhizomatic thinking, which involves making ceaseless and ongoing connections. These connections involve following ‘lines of flight,’ another figuration used by Deleuze and Guattari (1987). Following lines of flight means making connections between different ideas and fleeting moments. This kind of rhizomatic thinking includes following lines of flight by listening to emerging children’s ideas and narratives and is central to my study. Through examples, what I call events, my study shows how lines of flight have sometimes been created.

Thus, I want readers to read my data as stories reflecting children’s rhizomatic thoughts and narratives. It will help the readers follow the children’s ‘lines of flight’ (Deleuze & Guattari 1987), which were created in the processes of learning. I offer ‘lines of flight’ as a way to account for the power of connection and collaboration in children’s thoughts and narratives throughout the project about (and in) the forest.

In this chapter, I explained the methodology I employed to carry out my study, framing my methodological choices in terms of my philosophical commitments to illuminating children's rhizomatic thinking as described in Chapter 2. Attending to a pedagogy of listening as I joined these children in the forest ensured it would become a fascinating journey. The journey would be all the more wonderful when analyzed as a living example of following children's lines of flight.
My beliefs about children's capacities, and my image of them as competent, creative learners and theory builders, are complemented by the theoretical work of philosophers Deleuze and Guattari, and by the pedagogical approaches of Reggio Emilia educators. In Chapter 4, I chronicle the encounters, experiences, and insights that emerged when my young participants, their teacher, and I walked into the forest.
PROVOCATION 4: A TEACHER MONSTER AND HER HOUSE

Sarah: This is the tree and the tree became the flower. These are blue bugs and red bugs. This tree is a monster's house. This monster is a teacher monster because she is pointing something with her finger.

*Figure 3.2. Sarah’s painting: a teacher monster (on the left) and her house (on the right).*

Sarah painted a monster that lives in the forest. Tina, Tera, and Ella were watching what Sarah had been doing and they told Sarah that the monster needed friends, houses of its own, pets, mountains, and some snow. The girls had asked if they could join in painting with her. Sarah’s creation became a catalyst for more ideas and an inviting space for these girls to engage with each other’s ideas, ideas inspired by Sarah’s work. Sarah was excited about having her friends engage in her work process and produce additions to her original conception, a good example of the concept of ‘affect’ put forward by Deleuze and Guattari (1987).
Ella: This is a baby bug's mountain, and this is a sister monster's mountain, and this is a mommy monster's mountain.
Tina: This is other world and this is a north pole. It is big and this is a mountain.
Sarah: You have to draw snow falling down in the North Pole. North Pole is so cold that snow falling down. Snow, snow, snow. You have to draw some snow.
Tina: Snowing coming down (as she was drawing snow)
I am drawing my house. This is my house. This is your house, Ella. And it is snowing.
Ella: Is that North Pole?
Tina: Yes. I live in the North Pole.
Tina: No you don't.
Ella: I have snow at my house.
Tina: Yes, I have snow at my house.
Ella: Yes, I know, sometime at your house and sometime at my house. But my snow comes more often than your snow, ok?
Tina: This is my house and this is your house and Sarah lives here.
Ella: Why do I live so far from you?
Ella: In real, my house is near mountain and has lots of snow. My house has more snow than yours.
Tina: My house has lots of snow, but when I opened the Christmas present, it wasn’t snow. And our school is way up in the mountain.

Sarah’s painting inspired other children and invited them into the process of joint construction of meanings, sharing of ideas, creating stories, and painting together. The children and their
thoughts met around the painting and it worked as a place where thoughts were connected, transformed, and visualized. This painting event started from Sarah and was carried out in a dialogical way. In particular, drawing and painting as a collaborative event were utilized as a means for developing ideas and relationships. It invited the children naturally into relational space, allowing movements and dynamics of ideas and stories. Sarah’s painting activity became an event in which the children participated as performers and spectators. Through such connections the children have constructed a deeper and artistic relationship with forest, materials, and surroundings than individually.

Thus, the collaborative painting event became an event where stories evolved in the constant flow of interactions taking place. It entailed a transformation of thinking as thought encountered with other thoughts. In this regard, learning was not considered as an individual cognitive process confined within an individual child, but as a collaborative process of meaning making and inventing ideas. This learning context brought different forces into pedagogical work as it entailed the pleasure of working together, of feeling part of a learning event, and of building close relationships with other children. In early childhood practice, teachers often create boundaries around children’s work and ideas. However, if you see the children’s drawing, painting, and artworks as ways of communicating ideas, teachers should be attentive to create space where children can share their perspectives. Sarah’s painting in this event became an invitation to interaction rather than a mere expression of her ideas.
CHAPTER FOUR

CHILDREN’S SPECIAL RELATIONS WITH THE FOREST AND THEIR IMAGINARY STORIES

Children never stop talking about what they are doing or trying to do: exploring milieus, by means of dynamic trajectories, and drawing up maps of them. The maps of these trajectories are essential to psychic activity . . . As usual, however, Freud refers everything back to the father-mother. It is as if parents had primary places or functions that exist independently of milieus. But a milieu is made up of qualities, substances, powers, and events: the street, for example, with its materials (paving stones), its noises (the cries of merchants), its animals (harnessed horses) or its dramas (a horse slips, a horse falls down, a horse is beaten). The trajectory merges not only with the subjectivity of those who travel through a milieu, but also with the subjectivity of the milieu itself, insofar as it is reflected in those who travel through it. The map expresses the identity of the journey and what one journeys through. It merges with its object, when the object itself is movement. (Deleuze, 1998, p. 61)

In this chapter, I examine the spontaneous and unpredictable learning that took place between the children while they were engaged in a forest project as subjects “exploring milieus,” in the words of Deleuze (1998, p. 61). I draw on several concepts that figure in the work of Deleuze and Guattari, bringing theory and practice together in my analysis. Various narratives will be presented: children’s storytelling, storybooks, graphic narratives (drawings, paintings, and structures), and my reflections on the children’s stories. These stories, which illuminate the children’s rhizomatic learning processes, show dynamic relationships with forest and materials. I selected classroom events selected from my work with the children because they illustrate in powerful ways the children’s relations and encounters with milieu and each other. Deleuze observed that the adults in young children’s lives have special roles to play as children move through milieus (he spoke of parents but I would extend his insights to include teachers). “There is never a moment,” he wrote, “when children are not already plunged into an actual milieu in
which they are moving about, and in which the parents as persons simply play the roles of openers or closers of doors, guardians of thresholds, connectors or disconnectors of zones” (Deleuze, 1998, p. 61). Through a pedagogy of listening, I became one of those who opened doors and connected zones.

4.1. Forest Project Works as Rhizomes

In my study, Deleuze and Guattari’s concept of ‘rhizome’ is brought to bear on the children’s project in and with the ‘forest.’ The children carried out the project as a collective process in which lines of flight were created between the children, the teachers, and the researcher; lines of flight that permitted a creative approach to learning as we worked with children’s ideas and narratives. The teacher, children, and researcher used pedagogical documentation as a kind of constructed memory of these collective processes. We worked with children’s emerging ideas and narratives throughout the forest project and provided the children with a space where they could work with ideas and theories through continuous experimentation and invention. Throughout the study, the teacher and I worked together with the potentialities that are already inherent in a classroom.

The project on the forest can be seen to move through the philosophical notion of the ‘rhizome,’ where there is no predefined curricular progression. Interpreting the children’s experience through the lens of ‘rhizome’ offers the possibility for understanding children’s thinking in order to construct teaching practices that are open, complex, and transformative. With the help of pedagogical documentation, the children’s thoughts and pedagogical work were represented visually for themselves and their teachers. As the researcher, I tried to search for what the children intended, and together with the teacher we engaged in as well as observed the children’s rhizomatic learning processes. Thus, this chapter is composed of examples from practice developed through connections that the children and I made with the forest, materials,
thoughts, and each other. I closely examine three events that occurred. The events illuminate a number of different concepts that have been defined by Delueze and Guattari. Although I have chosen to highlight one or two concepts in analyzing each event, I appreciate that these concepts are interrelated, and that overlap and intersections between them are inevitable. The following are the events and the central units of analysis I employed:

- Rhizomatic thinking and a multiplicity of ideas: Mystery girls
- Desire and an assemblage of Desire: Road making
- Transcendental Empiricism: Leaf explorations

4.2. Encounters with the Forest: Working with Possibilities and Potentials

It was a snowy day in January, opening day for my research with the children and the teacher. The children and the teacher warmly greeted me. Some of the children recognized me and instantly invited me into their play. The classroom was full of warm energy from the children’s busy play. The teacher and I had a brief conversation about a plan for the day, beginning with a walk into the forest. These children had made many trips to the forest since September. Yet, they had not been back to the forest since the Christmas holiday, so they were excited to go. I tried to imagine the forest in January and wondered how the children might react to the winter forest. They rushed to the cubby area, quickly dressing in their winter gear. Each child joined a partner and held hands. They beckoned me to follow them as we left the centre and walked for about 10 minutes. At the entrance to the forest, I found a campus map. The children excitedly explained to me where we were, pointing out the location of their centre relative to the forest. The teacher told me talking about places and names of buildings on the map had become an important part of any trip to the forest.
Figure 4.1. The children are excitedly exploring the campus map on the way to the forest.

It was beautiful scenery due to the snow that was glittering in the trees. The children separated from their partners immediately. They could easily walk through the trees, bending around branches and through narrow spaces. The children seemed to have no problem but the teacher and I had a hard time following; navigating those small spaces between the hanging branches prevented us from catching up with the children. The children excitedly shouted to us and the teacher advised the children to stay in sight. They quickly agreed among themselves to visit 'the rainbow tree' first. It seemed to me they knew this forest very well; and everyone seemed to have their own path to the rainbow tree. The children’s excitement posed a question for me: Why is this particular tree so special to them? In Deleuze and Guattari’s (1987) language, I felt my own desire towards the rainbow tree emerge. Their desire became my own. I was walking fast now, longing to see the tree, wondering why I had never desired a tree before. It was a pleasure to be guided by the children, to be a foreigner in this unknown place. Then, I heard one
of the children shouting, “Rainbow tree! This is our rainbow tree!” I came to a full stop in front of the tree. I was amazed by how beautifully the branches made an arch that curved just like a rainbow, as if someone intentionally made it like this. With all the leaves gone, and with the children’s excitement, the structure of the rainbow tree was vividly revealed.

![Rainbow Tree](image)

*Figure 4.2. The rainbow tree I encountered in the forest*

After some time with the rainbow tree, the children told me they wanted to show me a climbing tree located close by. Each child seemed to know her or his own way to get to it. I followed one of the children. Then I saw it. All the children climbed up the tree so easily. The shape of the climbing tree was inviting for the children to climb. Some of its thick branches grew parallel to the ground. Once in the tree, all the children quickly transformed themselves into monkeys. The forest was also transformed; it became a place for the monkeys to play, sing, dance, and eat. The climbing tree held the power to transform the children and the surroundings.
After the children played for perhaps 10 minutes, they moved to what they called the ‘tree tent,’ a place to find shelter and again engage in fanciful play, this time pretending they lived inside.

The teacher told me these three sites—the rainbow tree, climbing tree, and tree tent—were the places where the children had built strong relationships within the forest; visiting these places had become a ritual each time they came here. It was evident to me that this was so. After visiting the rainbow tree, climbing tree, and tree tent, the children freely wandered and explored other places in the forest. The children were allowed to travel by themselves as long as they could see the teacher. This encounter with the forest helped me to understand the children’s experiences, what the children had desired, and the connections they had made. Now, it was our turn; how could the teacher and I facilitate the children making connections and meaning around and within the forest? This first encounter with the forest provoked me to think more about my role as a researcher. I shared this reflection and question with the teacher.

Figure 4.3. The children transformed into monkeys, played on the climbing tree, and made some food at the tree tent.
On the way back to the centre, the children continuously interacted with each other and the surroundings. Some children showed great interest in branches and sticks on the ground. The teacher noted that the sticks and branches were not visible when the forest was full of leaves. The children started to collect sticks from the ground. In particular, Hailey was determined to collect as many sticks as she could. She had collected a big pile of sticks, remarking that “sticks are beautiful and these small sticks are so soft. Sticks are my favourite.”

**4.2.1. Becoming a Child.**

Hailey’s comments on the sticks were new and unfamiliar to me. I have never thought sticks could be beautiful and appealing. I have considered sticks as hard and potentially dangerous for young children’s play. However, after observing the intra-action between the children and the sticks, my preconceptions of sticks changed. The other children also started picking up sticks with excitement and joy. They were clearly drawn to the sticks, not viewing sticks as adults do, as objects that could harm. Instead, the sticks gave them certain powers, power to transform things and each other. The children’s diverse intra-actions showed me that sticks hold many potentialities, and for the first time I acknowledged the agency of sticks. I started to see what these sticks could do, how children perceived them as more than inanimate objects, and how these sticks actually invited the children into processes of learning. What I realized I had observed in the forest was the agency of materials, in particular sticks and trees. Through encounters in the forest, I was reminded of the concept of becoming as Deleuze and Guattari (1987) understand it. In *A Thousand Plateaus*, Deleuze and Guattari (1987) wrote rather poetically, “on the near side, we encounter becomings-woman, becomings-child . . .On the far side, we find becomings-elementary, -cellular, -molecular, and even becomings-imperceptible” (p. 248). As I interpret it, *becoming* presents ideas about what we are and what we can be,
potentialities that go beyond the categories that ordinarily contain us. *Becoming* gestures beyond the boundaries separating human beings from animals, man from woman, child from adult, micro from macro, and even the understandable from the incomprehensible.

Sotirin (2005) clarified Deleuze and Guattari’s concept of *becoming*: “Becoming moves beyond our need to know (the true, what is real, what make us human); beyond our determination to control (life, nature, and the universe) . . . For Deleuze, “becomings” are about passages, propagations and expansions” (p. 99). The focus of *becoming* is about changes in ourselves. *Becoming* is always about the “in the middle and in-between” (Deleuze & Guattari, 1987, p. 323). May and Semetsky (2008) and Taguchi (2010) also worked with Deleuze’s and Guattari’s concept of *becoming*. These authors saw becoming as a way to think about bringing the other into ourselves or becoming transformed through encounter. *Becoming*-child means that I am still an adult but change my viewpoint because of being with a child. Thus, I became a child through the encounter with the children who intra-acted with sticks. I had never thought that sticks could be beautiful and soft, or that they had much potential to enrich children’s learning. I started to wonder about sticks and the possibilities of sticks. I recognized my changed perception of sticks and started to see them differently. I saw myself changing as an effect of the encounter with the children and the sticks. Sticks became an inspiration for me, a catalyst for seeing potential and possibilities in other materials. I became more aware of the environment and materials, as well as their value within pedagogical spaces. The following photograph shows how quickly a stick was transformed from a cane to a drawing tool when a child found a frosty picnic table in the forest.
On that first day in the forest with the children, all the children held at least one stick in their hands. They used them for walking in the forest and drawing on the frosty snow on the picnic table. Holding a stick in the forest seemed to give great power to them. I carried a long slinky stick, to which I was attracted. It changed my attitude towards the forest. I didn’t feel like a stranger in the forest anymore. I became a part of this world just by holding a stick. Once I held a stick in my hand, the stick was not separate from me; it became an extension of me. And my own sense of myself was transformed by having the stick. I became something more than my ordinary self. The children’s perspectives of their sticks and their intra-actions with them transformed my perspectives on the sticks. I became a child.

This encounter made me realize how much I have limited my perceptions of experience because of my preconceptions of the world. According to Sotirin (2005), the immanence of becoming is the most critical aspect of our identities. When we think in terms of becomings,
multiplicities, lines, and intensities rather than essential forms, predetermined subjects, functions, or transcendental values, we are transformed. The encounter with forest provoked me to see things out of the usual framework in which I confine myself. It changed my conception of sticks, so that I began to see their many possibilities and potentialities. This experience made me realize that researching and learning with children means not only listening to children but also bringing ourselves into the process of learning, a process of becoming. It is not just listening and standing back. We need to be working in a dialogical way with children and materials.

After the first visit to the forest, I revisited the question that I had in the beginning: How could the teacher and I facilitate the learning for the children to make connections and meaning around and within the forest? Do our perceptions (e.g., considering a stick as something dangerous to play with) hinder the children from discovering values and possibilities in materials and surroundings? Through this encounter, I recognized the importance of a pedagogy of listening. I found my own perceptions and ideas were limited. I recognized that in order to carry out the project with the children we (the teacher and I) needed to put our assumptions aside, be willing to transform our ordinary perceptions, and look forward to seeing the changes in ourselves. We had to be faithful to the fact that we have become part of a learning community. As a team of researchers (the teacher and I), we were then open to looking for particular ways in which these children make connections with one another, with the surroundings, with materials, and with us. Lenz Taguchi (2010) wrote that this means we have to see ourselves in a constant and mutual state of responsibility for what happens in the multiple intra-actions that emerge in the learning process, because we affect and are being affected by everything else.

4.3. Event 1. Rhizomatic Thinking and a Multiplicity of Ideas: Mystery Girls

On one of my next visits to the centre, I saw that many natural materials—leaves, sticks,
pine cones, stones, dried flowers, acorns, etc.—that had been collected by the children and the teacher were displayed throughout the room. The children freely touched them and used them in play throughout the day. In the painting area, where leaves were beautifully presented in a glass jar on a mirror, Sarah, Tina, and Ella were collaboratively painting a forest. A book featuring Emily Carr’s paintings of northwest coastal forests was displayed on the table. The children had shown great interest in Emily Carr’s paintings during a visit to the Vancouver Art Gallery. Together we had seen the exhibition on *Shore, Forest, and Beyond Art from the Audain Collection*.

![Figure 4.5](image.png)

*Figure 4.5. The three girls are painting a forest after looking at the painting book together.*

As the three girls were painting a forest, they shared stories about their own experiences. I joined the table to listen to the stories, being curious about their feeling and thoughts about and within a forest. As I listened to the dialogue as they painted the forest, I realized the children had been constantly building and rebuilding theories about phenomena and experiences around/within
the forest. At first, the girls talked about trees in the forest as they were painting. They moved on to talk about animals, such as birds, bears, and bugs that live in the trees, and they remarked on what the weather in the forest would be that day. They also discussed the many different pathways through the forest. The forest had become a familiar and intimate place for the girls. Then, I heard something interesting, a notion that was not familiar to me. One of the girls initiated a topic, which instantly transformed the forest to an imaginary world. As the girls conversed, Sarah brought up mystery girls. According to her story, she met the mystery girls in the forest. Her story attracted my attention right away because it was the first time I heard an imaginary idea emerge from conversation about the forest.

Ella and Tina showed a great interest in Sarah’s story and promptly joined the conversation about mystery girls. They were quickly immersed in Sarah’s story, creating and adding more stories about mystery girls. Then, Sarah suggested playing mystery girls. The three girls quickly wrapped up their paintings and moved on to play mystery girls. The children were transformed to mystery girls and the classroom became the forest in which they lived. Hailey and Mini eagerly joined their play. I became very curious about the mystery girls. How did Sarah come up with this story, and who are the mystery girls? I wanted to hear more.

### 4.3.1. Who are the Mystery Girls?

The teacher and I asked these girls to come to the carpet and told them we were wondering about the mystery girls. We started with a simple question: Who are the mystery girls? When the teacher asked, the children laughed but they seemed excited to share their story with us. Sarah went first:

- It is a kind of girl that is invisible and can sneak into the house and when people are all out, she makes snack in the house and cleans all the stuff.
- Hailey: It is a girl who cleans all the dirty stuff.
Tina: The girl is invisible and cleans the dirt on the floor. She’s got cleaning sticks. They are branches. 10 inch branches.
Mini: They can sneak into the forest, too.
Sarah: These girls want no one to see them because they just want to be invisible. But their cousins can see them. Only their cousins can see them.
Mini: Then, they can sneak into the forest and they can go up there and up to the trees.
Sarah: They live in the forest.
Teacher: How do you know they live in the forest if they are invisible?
Sarah: Because we are cousins of the invisible girls. So we can see them. They have invisible eyes. So they can see each other, too.
Teacher: Then, Bosun and I can't see the mystery girls?
Sarah: No. Because you are not mystery girls and you are not cousins of mystery girls. Can we go to the forest now? We want to play with the mystery girls.

Figure 4.6. The children explained about mystery girls as they drew them. They also drew the house of mystery girls in the forest that they made out of wood.

This conversation led the girls, the teacher, and I to the forest again the next day. When we arrived, the children rushed to the climbing tree and the rainbow tree first. They seemed to never tire of these trees. After playing for some time, Sarah volunteered to guide us to where the mystery girls live. The children followed her. After a brief walk, Sarah exclaimed, “This is where the mystery girls are living.”
This place was a small clearing surrounded by some burnt trees, fallen logs, and many tree stumps. In the middle, there was a small hill that the girls could climb on, and on one of its sloped sides was a hole. Sarah said the hole is the door leading into the mystery girls’ house. As soon as we had all arrived, the children transformed themselves into mystery girls. They began by saying they had just come back from cleaning up the school and wanted to take some rest at home. The children played mystery girls for a while and then Sarah said,

I wish we had a tree house at the school too. Then, we can rest there when we are tired. Tina: We need a hiding place at the school too in case people see us. We don’t want people to find us. The girls appeared so excited about having a tree house inside school. The children’s story evolved collaboratively as they shared their ideas. Their collective story then induced another event: building a tree house inside the classroom. The girls exclaimed that they would make a tree house as soon as they returned to the centre. On the way back from the forest, the girls talked
about the shapes and colors of the tree house that they wanted to build. The teacher suggested the girls draw pictures as a way to show each other their ideas.

4.3.2. Building a Tree House for the Mystery Girls.

Back in the classroom, the girls were still excited about making a house for the mystery girls. First, they wanted to design the tree house. They sat around a table in the drawing area, bringing all the art materials needed for the design. As they drew, they shared their ideas about an ideal house. First they drew what they called their ‘wish tree house.’ They wanted to make a colourful tree house with many decorations on its walls. The following photos show the girls' desire for using colors for the house.

![Figure 4.8. A tree house for mystery girls, designed by Sarah, Tina, and Tera.](image)

Next, Sarah and Tina ran into a small room interior to the classroom that is used as an art studio for small group work. There were a lot of materials in the room including various sizes and types of paper, coloured pencils, markers, and natural materials, such as sticks, leaves, dried fruit
peels, and pine cones collected in the forest. When the girls saw the sticks, they wanted to use them for the house as well as a big wooden frame leaning on the wall. However, the room was too obviously tiny to make the tree house they had designed. The girls faced a problem and they looked genuinely perplexed. I asked the children if they needed a bigger space. Sarah looked around the room again and said she had changed her mind. According to Sarah, the mystery girls did not want to have a big house because they don’t want people to notice them. She proposed making a tree tent instead and the others immediately agreed it was the right solution.

It was interesting to see how Sarah dealt with the problem. Not having enough space for the tree house made the girls pause, and caused Sarah to produce an alternative. Instead of relocating to a bigger space (I was going to suggest they build it in the backyard), Sarah tried to find a solution consistent with her story; that is, she tried to find a solution based on the mystery girls’ desires. Sarah and other girls had already claimed that mystery girls did not want to be noticed by people. They worked with their own theories and decided to change their original plan. It was an ‘aha’ moment for me. I have been talking about the importance of listening to children. Yet, I was looking at making a tree house as an activity without thinking about why it was so important to the girls. I know that problems are provocations for learning and that children are capable of thinking through them. However, when I saw the girls faced with a problem, I worried that it might discourage them, so instead of listening I imposed my own view (if it’s too small a space, go elsewhere). After listening to Sarah, I was glad she had persisted in her own problem solving. She recognized the problem and generated a solution that fit the circumstances.

Next, the girls started to negotiate making a tree tent. They discussed size and shape. They wanted it to be small so that no one would notice but the mystery girls. They decided to make a secret door that would be less noticeable to those walking by, but would lead the mystery
girls to the house inside. Their imagination and thoughtfulness for the mystery girls created something they had not anticipated in their original design. But now they had a new problem: If they made a secret door to the tree tent, how could they let the mystery girls know what it was and that it led to it a tree tent especially for them? Another problem produced more ideas. The children decided that the mystery girls needed clues in order to find the tent door:

Sarah: I am cutting these leaves because these are the first clue.
Tina: These paper hearts are the second clue. I will put some hearts on the door.
Tera: These sticks are the third clue.

The children used a wooden frame for the door of the tent. Then, they added some sticks to the frame and decorated the door with paper hearts and small leaves. The children hoped that these clues would help the mystery girls find the door. The children’s imaginary characters became alive as we adults listened to them and encouraged connections between their thoughts and the world; we participated in the process of learning together. The children’s initial plan was changed as they encountered the challenge of too small a space. Then they were faced with the challenge of communicating the whereabouts of a secret door without giving the secret away to others. Their ideas were transformed in one encounter after another with the demands of the situation. The practice of thinking, discovering, and inventing was not an individual enterprise but a social one, one that required all of us to closely attend.
4.3.3. Rhizomatic Thinking and Multiplicity of Ideas.

Working with children’s ideas was an inventive process among participants, including teachers and in this case a researcher. It created reciprocity in learning. Children created the mystery girls through encounters with a forest and opened an imaginary world that all of us could enter. The children had opportunities to invent and experiment. The very idea of mystery girls shifted my own understanding of teaching and learning. Sarah’s creation of mystery girls reflected her experience of the forest and her thoughts evolved when other children added details. The process continued when their teacher and I valued their inventions and asked questions about them. We provided the children with space so they could share and work with their own ideas. Their ideas were provisional and developed in relation with each other and with problems that arose.

Figure 4.9. The door of tree tent that leads to the inside of the tent decorated with clues for mystery girls.
For Deleuze, thought occurs not ‘naturally,’ but when we are forced or provoked to think. The girls deliberated together to solve problems. In a way, I became part of the children’s rhizomatic thinking processes when I asked questions to lead them forward; but when I saw space as a problem I focused on the original plan and could have thwarted any further growth of ideas. Sarah seemed to see the issue more broadly and sought to build a structure that fit the space and considered what mystery girls really want. For the girls, the size limitation became a provocation that forced them to think deeply about what mystery girls really want and to change their plan. I realized that my way of thinking was too rigid and linear compared to these girls’ way of thinking.

Their evolving plan consisted of multiplicities of ideas: the idea of providing a resting place for the mystery girls in the classroom, the idea of the mystery girls’ desire not to be noticed, the idea of making the secret door, and so on. This event reminded me of the characteristics of rhizomatic thinking. The rhizome lacks an established, fixed, or stable identity; it is always in the process of becoming. Rhizomes are multiplicities. The rhizomatic thinking process was evident as the children played *mystery girls*. Their identities kept changing as they played. Their identities were not fixed, but flowed. First they were the children we recognized, the young students in an early childhood centre, then mystery girls, then the cousins of mystery girls. They freely transformed themselves with their stories and their constructions, moving back and forth across their lines of flight.

According to Colebrook (2002), “we have a tendency to assume that there is a common sense or agreed upon way of thinking. Against this, Deleuze wanted to open life up to diverse modes of thinking” (p. 11). For example, for the sake of consistency and in line with our common-sense notions of identity, we might ask the students, “You said you are the cousins of mystery girls, then how can you be the mystery girls when you are here in the forest?” Or, “If
you are mystery girls, then how can you make a tree house for them? Are you the mystery girls, the cousins of mystery girls, or something else?” Against this kind of pre-determined order, Deleuze wanted to open life up to diverse modes of thinking. Mystery girls, for example, are not based on representing or expressing some common world view. The children’s experience in the forest, their different ways of thinking, and their imaginative constructions disrupted my own thoughts about identifications. I recognized that children’s thinking processes are far more flexible than mine. For the children, there was no clear or rigid distinction regarding who they could be. This event made me think about our ways of teaching in early childhood settings. Are we confining children’s free thoughts by trying to put them into our own categories and structures? Or are we respecting their singularities and making room for their unique ways of seeing and being in the world?

When Sarah refused my solution, she kept the thinking among the children fluid and dynamic, open to novel alternatives. In line with this, “Deleuze looks at philosophy as a power, a permanent challenge to think differently by creating problems” (Colebrook, 2002, p. 12). For Deleuze, thinking philosophically means to think against the normal or recognized cases of thinking and to free thought from any restricting images. Colebrook (2002) explained that for Deleuze the world is not something simply there waiting to be represented through our thinking, but the world creates concepts that “open us up to new powers of thinking” (p. 26). The stories of Mystery girls tell us that thought is productive, generative, creative. Their encounter with the forest gave them the power to produce the story of ‘mystery girls’ and forced invention and new learning.

The concept of mystery girls reflects Deleuze’s concept of philosophy as the creation of new concepts. Thought creates its own worlds. Sarah initially created the story of the mystery girls from her encounter with the forest. Other children’s thoughts deepened and enriched the
story and it began to unfold as a collective creation. Because of the multiple ways in which these young children encountered the same landscape and environment, the forest could no longer be represented as a single dynamic entity. The creation of mystery girls transformed the forest. The forest became simultaneously a landscape to travel through, a space full of rainbow trees and climbing trees, and a place where mystery girls were living. And these various understandings of forest created further and diverse learning experiences for each of the children.

According to Colebrook (2002), “if we limit thought to simple acts of representation and cognition, for example, ‘this is a chair’, ‘this is a table’, then we impose all sorts of dogmas and rules upon thinking” (p. 14). There are different styles of thinking and learning that go beyond representation of the world. Deleuze and Guattari (1994) talked about the universal power of philosophy. They were not speaking of the power of generalisation or some common feature that all beings share. Thinking universally demands that we go beyond all the beings that we ordinarily perceive and instead think about how any being might be possible. Deleuze and Guattari (1994) stated that “you will know nothing through concepts unless you have first created them . . . To create concepts is, at the very least, to make something” (p. 7). The children’s learning in this context was not focused on common sense and ordinary representation but on creating and connecting thoughts through their own kind of logic. It was a creative process rather than one that features the representation and transmission of pre-existing knowledge. The process itself created new ways of thinking and learning. The encounter with forest allowed the children to think of many stories and thoughts that were not yet known to the world and gave the children power to move beyond what we already know about a forest. Their experiences and deliberations transformed the shape of the learning journey, creating new paths for thinking. Deleuze would say that thought created its own world.
For these reasons, I assert that adults have to listen to children carefully so we can understand them through the logic they communicate to us. The story of mystery girls provoked the children to continue to make connections with the forest and work intensely with their own ideas. It was the creation of a way of thinking and a way of seeing differently. The *story of the mystery girls* is just one of the children’s responses to the forest, an active response to their experience.

4.4. Event 2. Desire and an Assemblage of Desire: Road Making

The painting area is always open to the children in this classroom. Different colors of paint and various brushes and papers are carefully laid out. Access to these materials encourages interaction by the children. Because of the easy access, children are comfortable using the painting area. They easily work with their own ideas and different purposes.

Jason loves to play with mini cars. One day, he was painting a road in the forest for his mini car. He painted a road through a forest and rolled his car over the paintings. When other boys saw him playing, they wanted to roll their cars on the paintings, too. Two boys wanted to paint their own roads. Soon after, they found that rolling the mini car on the wet paint left paint on the wheels. This event excited the boys and led to further experimentation. With the paint on the wheels, the children rolled the car on other paper to make wheel marks. They made all sorts of wheel traces on the paintings. Other boys with mini cars came to the table and rolled their mini car on the painted roads, expressing great enthusiasm for this new adventure. The following photos show how Jason made marks of his mini car on his painting and wheel traces on the painting.
The teacher and I reflected on this event. It was obvious to both of us that the boys would be excited to have more roads on which they could roll cars. The teacher and I discussed how we could help the children to extend the moment of intense interest. We did not want this desire to fade away. It reminded me of Rinaldi’s (2006) claim that “listening is an active verb” (p. 65). The teacher and I wondered together how we could rekindle their interest and support them to work with their desire. Instead of asking the children to make a road, we decided to create an environment where the children could naturally engage with the desire they had expressed. The teacher and I talked about which materials would be helpful for developing their ideas about the road and the teacher suggested clay might work. She told me that expressing their ideas through clay and producing clay figures and objects were regular activities and very natural to the children in this classroom.
The next day we put out a big chunk of clay on the table. We asked Jason if he wanted to make a road using clay. Jason looked excited about the idea, and two other boys joined him. Instead of making an individual road, we suggested the children try to make a road together. We asked the children how they might do this and the children came up with many ideas. First, they wanted some elevation so they could roll the car down quickly. One of the children brought a plank of wood from the art area and attached it to the chair to get elevation. Once the plank was secured to the chair, the children started to make a clay road. They made a round ball of clay and then pressed it down onto the plank. From time to time, the boys checked the road with their mini cars to see if cars could move well on the clay road. When the road reached the ground from the wooden plank, the children wanted to make it longer. As the road got longer, other children in the classroom became involved in the event, including several girls. The children’s desire to make a longer road surfaced throughout the process of making a road. As the road reached the ground, they wanted to extend it to the door of the classroom, then they wanted the road to go out of the classroom and through the hallway until it reached the main door of the children’s centre. The children were intensely engaged in the road-making event. As the road got longer, it attracted more children to join the process. Some joined the others to help make a road and some joined as spectators. When the road reached the hallway outside the classroom, some children wanted to make bus stops, street lamps, and traffic signs. The road drew attention from the people passing by in the hallway. Soon the road-making event connected the children and adults. The children’s desire kept growing. They wanted the road to meet the main street outside the centre. Everyone in the classroom was looking forward to it. It became everyone’s desire. We all patiently anticipated together. When the road reached to the door, someone shouted to open the door. Jason and James together pressed the button and the clay road met with the main street that comes up to the door.
of the childcare centre. This was a moment of joy and satisfaction for everyone who was involved.

The following are the children’s own words and narratives produced during the road-making event, describing the exciting moment when it merged with a real asphalt street:

We are going to make a road in the forest.
I am going to make mountain in the forest.
I am going to make river in the forest.
Someone in the forest cut the tree to make a house.
This is a stump and this is a tree.
And I will make the person.
Let’s make a road quickly.
Where will it go?
All the way out.
All the way out of our classroom?
All the way out of our school?
It is raining outside.
In the rain?
Mud puddle!
What do you think it will happen if we make the road all the way outside?
Cars will come. Cars will come to the classroom.
There is a huge bump.
We need to build a sidewalk.
This is a bus stop.
I want all the bus stops here.
I want to make bus loop.
Bus stop 1, bus stop 2, bus stop 3, bus stop 4, and bus stop 5.
There are a lot of bus stops.
There are 8 bus stops now.
We need a street lamp.
That's the light bulb.
We need a sign.
We are almost there.
I need your help.
I got lots of clay.
Guys! Lots of clay.
Who’s going to open the door?
I want to open the door.
I want to open the door.
Guys! It is not ready yet. Don't open the door.
It is almost to the door.
Can you help me? We are almost there.
Open the door; open the door now.
Tada!! We made it.
Figure 4.11. The children making a road with clay in the classroom and in the hallway until it reaches to the main door of childcare centre.
This event shows how the desire of the children was instigated and how the assemblage of desire worked in practice. Deleuze (1984) defined desire as the production of reality. Colebrook (2002) explained that for Deleuze, “desire is positive and productive, and this allows for a radically new approach to politics” (p. 91). In the road-making event, desire allowed for a new approach to learning. Deleuze and Guattari (1984) stated that desire begins from connection and is enhanced by connecting with other desires. Desire in this event was enhanced as the children wanted to make the road longer, add more things like traffic signs and street lamps, and reach the main gate of the childcare centre. These connections and productions formed an assemblage of desire, which was creative and productive through the children’s learning process. It gave rise to further action. As we can see from the documentation above, the teacher and I carefully listened to what the children intended and used their desire as a foundation for this learning process. It resulted in interesting and transforming experimentations between the children, clay, classroom, hallway, and the main gate.

When the teacher and I planned this event, we did not know how the learning process and the activity would evolve. We did not expect the children to make such a long road that eventually went out of the classroom, crossed the hallway, and reached to the main gate of the centre. We did not expect almost all the children in the classroom would participate in this event. Some were involved from the beginning to the end and some were only partly engaged. It was the characteristics of the material that made constructing a road through this space possible. The features of clay (its plasticity, its density, etc.) that made it possible for children to continue working with their desire.

Adults were also connected to children’s desire to make a road. The teacher thoughtfully selected clay as a material appropriate to the task of constructing a curving or straight stretch of road that could easily be pounded to the right thickness. Some might point out that the teacher
chose the material instead of the children, so the choice was not an authentic one. However, we began by recognizing and valuing a genuine interest. The teacher and I saw the boys’ interest in making a road. We noticed their excitement when they rolled their mini cars on the roads they painted on paper. We supported the children’s desires by creating an environment where they could continue to be connected to and work with their intentions.

The need to listen to children is often emphasized in early childhood practice and in discussions about emergent curriculum. Yet, there is still a need to explore what listening to children means in practice. We need to find ways to make closer connections between what we hear and what might be learned. Setting out clay for the road making was our response after listening to children’s desires. The teacher and researchers took on the role of collaborators and co-learners. We became part of assemblage of desire. The process was a collaboration and a kind of learning conversation between children and adults. Malaguzzi (1993) described the back and forth exchanges that ought to happen between young children and their teachers as a ping-pong match. In this way, the children and adults became co-constructors of an event.

The process of learning was not pre-planned but took shape as the children made new connections between ideas, materials, and surroundings. The whole process of learning followed the flow of the children’s desires. Learning was not focused on the individual child; rather, it was carried out collectively with the children’s emerging ideas, narratives, and actions coming together as the clay road reached its end.

4.4.1. Desire as Positive Production.

One morning, when I came into the classroom, Chris exclaimed, “Bosun, come and see this; this is our mud track. This is really cool.” I didn’t even have time to drop off my bag in the
I ran to the table. The boys, Chris, James, and Scott, were painting the ‘mud track’ on the big piece of paper together. Chris explained to me:

This is our mud racetrack in the forest.
Every time you get mud on your wheel, you get a point.

How do you know if you got mud on the wheel?

This mud has colour: green, red, and brown. It is the colour mud. (The children used brown coloured paint as mud).

![Children painting mud track](image)

*Figure 4.12. The children painting mud track for their mini cars and playing a game with the track.*

Painting a mud track quickly transformed into playing a novel game. The rule was to get points; mini cars have to get the colour mud on all their wheels. Then, Chris thought it was too easy for them to play without further requirements. He wanted to make it harder for himself and his friends to acquire points:

Chris: I want to attach this on the track.
Chris brought a long thin wooden block from the block area and attached it to the track. At the bottom of the wooden block, he placed a basket: “If the car goes into the basket from the track, you get another point.” Chris’s idea of adding a narrow wooden block to the track got Brian’s attention who was playing by himself with his own car in the block area. Brian wanted to join this game. Chris explained to Brian how to play this game:

> You have to follow the mud track, and if you get your wheel get the mud, you get points. Then, you have to roll your car from track to this basket, and then you get another point.

After the children rolled down their cars several times from the track to the basket, they wanted to change the angle so that they would have some more challenges. This time, Brian brought a long white rack from block area. They attached the rack to the mud track at the opposite angle from the previous one, from the top of the rack down to the track. When the children rolled the car down from the top of the rack, the car raced to the ground. Scott quickly put the chair close to the track. At this point, when the car bumped onto the chair at high speed, it fell to the ground. Scott explained his plan to his peers. He said the car should go through the hole in the chair. His plan brought huge excitement and challenge to these boys. They tried to find the right speed and direction so the car would go through the hole. This experimentation was intense; everything happened and changed so quickly. They tried many different elevated angles by changing the positions of the chair. The chair played a critical role in making this experiment more exciting. The chair was not a regular chair anymore. It had been transformed to an object that created dynamism and variety in this experimentation.
The children constantly added different materials to challenge the previous construction and to make the play more interesting. They found out that rolling the car in an upward direction...

*Figure 4.13. The children’s collaborative experimentation (making tracks for mini cars).*
first makes the car fly even higher than it did in the descending direction. Yet, you have to make sure you put a lot of power into it and the right speed to roll the car in the beginning. If you apply insufficient force, the car cannot go forward; it slips down backwards. It required the children to think about speed, power, direction, elevation angle, and the right timing. This experimentation was carried out with intensity created by the children’s desire, desire that constantly changed as the children interacted with various challenges and variations. According to Olsson (2009), educators have to be attentive to the conditions under which something new is produced and arrange environments that give conditions for experimentation and for making unforeseen and complex connections. Pedagogical work does more than reflect the narrative of children’s intentions and meaning making; it helps create intensity, movement and energy.

This event was carried out with the children’s provisional ideas and desires. Diverse ways of making tracks for different directions and speed were the main foci of this event. The teacher and I were also immersed in the process of learning. We were caught up in the excitement of anticipating what would happen when the children changed the angle of descent or when they added a new feature (like the chair). We supported the children to further investigate by offering the materials they needed at the moment they needed them. Every transition was accompanied by the desire to try something new and to challenge the previous action. “It functioned like a sort of contagion that people got involved in” (Dahlberg & Moss, 2009, p. xxiii).

When we were fully attentive to the children’s desire, we supported their collective and intense experimentation and then stepped back to become enthusiastic spectators as the process unfolded between children, materials, and forces of gravity. The event evolved through ‘collective assemblages of desire,’ the concept put forward by Deleuze and Guattari (1987). According to Olsson (2009), it is important for teachers to “hook onto” the children’s experimentation and learning by positioning themselves where the event is happening (p. 50).
The event recalled here is not typical of what happens in early childhood practice. In many cases, a classroom is divided into well-defined areas: the art area, block area, reading area, dress-up area, and so on. Children are asked to clean up the previous playing area before they move to other spaces. There are rigid borderlines between areas. Also, there are both explicit and implicit rules to follow. For example, “you can play with blocks but make sure you only build something lower than your shoulder.” “You are not supposed to put markers in the water. Markers are for drawing on paper, not for dipping in the water.” “Put the chair back to where it was before. A chair is not for playing, it is for sitting.” “Could you move the blocks away from the painting table? Blocks should stay in carpet area.”

Of course there are rules that children should follow in the classroom for safety reasons, but many more are arbitrary or exist for the sake of classroom management. Children’s play and work are often confined by adults’ predeterminations of what should be allowed and disallowed. Adults’ categories and perceptions can often prevent children from working with their own ideas. The collaborative experiment described here was carried out in singular ways as children encountered new problems and followed through with inventive solutions. The right materials were added so the children could continue to explore. In the beginning, the boys painted a mud track for their mini cars and then created a game and played. As another boy joined the game, a new idea was added along with a material, a wooden block. The children continued to add other materials, such as a basket, a white rack, and a chair as they added more ideas and plans to the game. As the adults, we allowed borderless environments for the children to work with their ideas and desire because we were both attentive to what was happening at the scene. We did not disrupt their experimentation with our standard of what is allowed and what is not allowed. We recognized the value of the materials the children were using for their work. We were able to acknowledge their intention and desire because we were also part of the event. Our roles were not
limited as supervisors or observers who stayed outside children’s experience. We were physically and emotionally engaged with what the children were doing, and provided environments for experimentation and connections. The children conducted their experimentation with constantly changing ideas and plans as they encountered new desires.

Desire is a “force that creates new compositions. A collective assemblage of desire indicates a certain kind of ‘non-personal individuation’ always assembled, and one which cannot be reduced to personal feelings or as events that take place in between people” (Dahlberg & Moss, 2009, p. xxiii). According to Deleuze and Guattari (1984), desire is never conscious. It is like machinery that is put into motion. This particular event with cars shows how an assemblage of desire was created and transformed through connections children discovered. In addition, the event shows the community of learners experimenting together through listening and dialogue. The children became partners in a process of experimentation by inventing problems and challenges, and by participating in an assemblage of desire. In this process, the teacher also became a co-inquirer by listening to the children and being responsive to the desire of the children. Deleuze would say that this is evidence of rhizomatic learning, which is never finished and always becoming through crossovers between offshoots and, through expansions of one form, growing into another. From a rhizomatic perspective, learning can never be fixed or final; instead, learning is always becoming. Thus, the experience of learning is placed in transition and in motion toward previously unknown ways of thinking (Ellsworth, 2005).

4.5. Event 3. Transcendental Empiricism: Leaf Explorations

4.5.1. Children’s Stories about Leaves.

One morning, Sylvia, a university teacher educator and artist brought different kinds of leaves that were preserved in a thick phone book. Sylvia works closely with pre-service teachers
as well as the teachers and the children at the childcare centre. She has created an art studio inside the University Early Childhood Education classroom to provide rich environments for teachers and the children. The children regularly visit this space and Sylvia also comes to the classroom to work with them. That morning Sylvia presented the leaves on the table, along with white paper, coloured pencils, and pens, in the small interior room of the classroom that is used as an art studio for small group work so that whoever was interested in exploring leaves freely could approach the table and explore leaves with her. Some children spent time touching, smelling, and examining the leaves and sharing their ideas. While the children were exploring leaves, Sylvia asked the children to tell us more about their thoughts. The following drawings and stories disclose the children’s perspectives.

Sarah: Leaves grow into another tree. Little tiny tree came out from somebody’s house. Tiny leaf came out and flew. There is a tree house playing music for the leaves. When leaves falling down, the music comes from the tree house. It is a magic forest. The music comes from the tree house. This magic tree has flowers. This is the flower plays music for leaves. When music comes out, leaves dance. These are monster leaves. They are dancing monster leaves. They are nice green monster leaves.

Figure 4.14. Sarah’s drawing and story about leaves.
Ella: This is a tree and these are dancing leaves. These leaves are falling down to the ground. But they don't get hurt because they don't have skin. When things fall down, they get hurt or broken. When leaves fall, they are beautiful.

Figure 4.15. Ella’s drawing and story about leaves.

Hailey: These are maple leaves. I love maple tree. There are lots of maple leaves at my house. Leaf has sound. You can hear the sound if you tap on the leaf. Leaf sounds like a bell, rainbow, woodpeckers, and someone knocking on the door. Leaf makes different sound. The sound is like a song. The bird can hear leaves and leaves can hear bird. Tree can hear leaves song and other leaves can hear the song. Only woodpecker can hear leaves. And leaves think about flying on the bird.

Figure 4.16. Hailey’s drawing and story about leaves.
According to Cadwell (2002), the use of metaphors to transform reality and create other realities through processes of allusion, substitution, and imaginative metamorphosis is a basic element of the creative process, and is at the same time one of the strategies that young children use to explore the world. Such allusion, imagination, and creativity are evident in the children’s stories related to leaves. In addition, I noticed that they made connections between their imaginative ideas about leaves and their lived experiences in the forest. These connections helped children’s imaginary stories unfold. Leaves provided opportunities for them to explore and express the world. For us, their drawings opened doors to the complexity of the children’s encounters within the forest. In particular, Sarah and Ella’s ideas about falling leaves caught our attention and we wanted to know more. We arranged another demonstration lesson with Sylvia in the studio.
The children observed and drew some of leaves that were displayed on the table. Then, Sarah picked one of the leaves and observed it for a few minutes and said:

Look at my leaf.
My leaf is spreading out.
A leaf grows on the tree and roots grow too. So the leaf is attached to the tree.
A leaf has roots attached to the tree and when it is fall, the leaf falls down from the tree.
These are the roots spreading out and attached to the tree.

Hailey explained about her drawing too:

All the leaves are bunch together, holding hands and falling down all together. They are exercising together.

4.5.2. Flights of Leaves.

In their stories, Ella and Sarah had theorized about falling leaves. Ella described them as dancing. Sarah added that “when music comes out, leaves dance.” Venice illustrated that “when
there is music, a prince leaf and a princess leaf dance together.” Hailey adapted the notion, saying, “leaves are falling down all together because they are exercising together.” Hailey held a leaf high and dropped it, then repeated her action with another leaf. She then dropped a small group at the same time. The leaves made beautiful lines when they were falling. The other children got excited and wanted to join Hailey’s experiment. Soon, the children figured out the leaves fell down too quickly to see their movements. Hailey wanted to climb onto the table so that she could see more. The other children were excited about the idea so they took turns. The children tried dropping every leaf from their perch on the table, excited about various lines of flight the different leaves made:

This one twirls. Did you see that?
That was really neat.
I want to see how this one goes.

This one moves like this (using the finger to express the movement)
Can you try this one? I will try this one.

Did you see how that one goes?
It went like dadadadada . . .

I am having fun . . .
The children expressed the flights of leaves with words and gestures. Sylvia suggested the children draw the movements on white paper she tacked to the wall. First, the children drew the lines of the flight with black pencils but realized they couldn’t represent the paths of multiple leaves so they asked for different colors.
Figure 4.20. The children sharing their ideas on movements of leaves by drawing them on the big piece of paper.

When Ella suggested they needed even more height from the ground to follow a leaf’s path, the children found the highest table in the studio from which to drop leaves. Sylvia, the teacher, and I decided we should move the experiments outside. A high wall formed a perfect backdrop for the falling leaves to create shadows as they fell and a breeze added to their motion. The children were entranced watching the leaves flying, twirling, fluttering, flipping, falling, and landing:

Ella: We are ready, go!
Sarah: It is beautiful.
Tina: It is so lovely.

Hailey: Are you ready for this?
Are you ready for this small one?

Ella: Are you ready for this funny one?
Are you ready for this skinny one?
Ready steady go. Watch!
(They flew the leaves one by one, and they flew a bunch of them together)

Ella: Ready steady go.
Hailey: Ready steady go.
Ella: Ready steady go . . .

Sarah: I am in the leaf rain. (Sarah stood at the bottom of the wall covered with leaves)
Tina: We want more leaf rain.

(Giggling . . .)

Sarah: We are in the leaf rain.

Tina: I see the leaf shadow.
Sarah: Can you catch the shadow?
Tina: Yes, I can catch the shadow. Look at this. I am holding a leaf and my shadow caught the shadow of leaf. Hahaha!!!
Figure 4.21. The children’s experiments with flights of leaves outside the studio.

Watching flights of leaves became a game to play, and a song to sing. The children and adults got caught up in the desire for flying and falling leaves. The white wall that people pass by daily without notice became a stimulating place. It created unanticipated connections between the children, the children and the teachers, the children and the leaves, light and shadow, and leaves and wind. This space suddenly became alive, inviting us to interact with it. We were all protagonists in the event, entangled in the process of learning.

When we encouraged the children to closely observe and explore materials and their surroundings, the children inspired us to see leaves in a different way, in ways we could not if we relied on our own perspectives. The children produced relations between the world and ourselves, making connections between each leaf and the height of a fall, its weight, speed, shape, and its interaction with the wind. Learning became a collaborative process between the children and the line of flight of each leaf, with questions arising in the event. Learning was not reduced to
following linear paths in a standardized and pre-planned curriculum. The children worked with their own curiosities and desires and were intrigued by each other’s questions. The experiments carried on until the teacher realized that it was almost lunchtime.

Deleuze’s concept of transcendental empiricism provides an interesting way to view this event. According to Colebrook (2002), Deleuze

seeks freedom from any single ground or origin, precisely because he strives to think of life as becoming rather than being. Transcendental empiricism uses the concept of empiricism to think of an experience, life or becoming that has no ground outside itself. (p. 69)

The 'flight of leaves' experiment demonstrates the importance of providing space where children can develop their own ideas, experiment with emerging questions, and invent new ways of thinking. The children discovered each leaf made a unique line of flight and they became curious about how height would influence these patterns. Their desire to see more movement led us to conduct the experiment outside the studio. The children discovered that wind could change lines of flight. I became more attentive to our surroundings as one of the adults who could enrich children’s learning through support of their ideas, rather than transmission of my own. I found the values of openness and spontaneity through the experience: If we allow children to lead us with their own ideas and curiosities, we are also able to discover new ways of learning. In the 'flight of leaves' event, learning was a process of working with problems and discovering something new.

According to Colebrook (2002), Deleuze did not see experience as the “experience of some being or some ultimate subject. Rather there is a flow or multiplicity of experiences from which any being or idea is effected” (p. 87). He described Deleuze’s particular form of empiricism, “as a ‘radical empiricism’ or ‘transcendental empiricism’” (Colebrook, 2002, p. 87). Deleuze’s transcendental empiricism brings forward a new conception of subjectivity; instead of
seeing subjectivity attached to a specific identity, subjectivity is viewed as a process of becoming. Through watching the leaves, I saw myself changing through a process of learning. I saw the children transforming my experience. The experiments affected the children and they responded with more experimentation. According to Colebrook (2002), Deleuze’s transcendental empiricism helps us see this kind of interaction as part of the flow of experience:

If we accept that all life is a flow of becoming and interaction, then philosophy will have to be a commitment to experience. Philosophy will be empiricism. Philosophy can be a transcendental empiricism if it does not set up some foundation outside experience. Experience cannot be grounded on man, the subject, culture or language. There is just an immanent flow of experience from which distinct beings, such as human subjects, are formed. Western thought has tended to take one of these beings as ground for all experience; this is the illusion of transcendence. Deleuze’s method works against this dogma and strives to think experience well beyond its human and fixed images. (p. 89)

Deleuze’s emphasis on experience that is not grounded in a privileged subject provides us with new ways of understanding learning. Learning is about the process of becoming through experience. In my study, the children experimented based on ideas that emerged from their observations of falling leaves (dancing leaves and exercising leaves). Their learning came through production of the *intra-actions* (defined by Barad, 2008) that took place through experiments. From the perspective of Deleuze, we should focus on the learning event with materials and surroundings that intra-act with the children. Learning does not end at a certain point. It keeps evolving with new connections and new ideas. Learning is becoming, rather than recognizing and representing recycled knowledge over and over again. Learning creates possibilities for new transformations, new *lines of flight*.

4.5.3. A Leaf Book.

Things and places in the forest have intrigued the children in different ways. Especially, the children have noticed and remarked about leaves from the beginning of the project. As shown previously, the children’s interest in leaves were presented in various ways, such as their
experiments with flight of leaves, which motivated some children to think in new ways about leaves. The connections the children made with leaves became stronger over time. The following event shows how one particular leaf inspired one child to make a book about a leaf, which inspired other children to make their own.

One morning, May was drawing leaves on the paper in the art area. There were different kinds of leaves in a small basket. May picked one of the leaves and said she liked this particular leaf and started to draw it. Then, she said she was going to make a book about this particular leaf because this leaf became special to her and she made a story about this leaf. She drew pictures first and asked the teacher to write down her story on the book. The special leaf gave her motivation to create her own story about the leaf.

1. Little tiny leaf broke into pieces. May fixed him up and he broke to pieces.

2. Jingle came along and fixed him and he did not break.
Leaves appeared to inspire these children, and in turn, they expressed their engagement with leaves through many forms: drawing, painting, making stories, and conversations. For instance, May’s book about a leaf shows connections she made through her words and pictures. The teacher decided to read May’s book to a small group of the children since they love to listen to their peers’ stories. The children really enjoyed the story and started to talk about their own favourite leaves and finally decided to make their own books about their special leaves. First, the children drew their stories and then asked the teacher to write down their story as they verbally told their stories to the teacher and other children. The followings are Tina and Ella’s stories and drawing about a leaf:
1. The leaves are falling down from the tree.

2. This is a person leaf walking around. He is walking to buy groceries.

3. This leaf is hanging on the tree. He is thinking ‘maybe I need to buy some groceries at the grocery store.’

4. This is a grocery store for leaves.
5. The leaf wants to buy groceries at the store. But he couldn’t buy them because he was stuck on the tree and fall was past.

6. The tree was lonely and he didn’t have any family.

Figure 4.23. The story about the lonely leaf by Tina.

1. Ella fixed the leaf and then it broke again. The leaf was very old, and it breaks easily. And then, Marshall came along and fixed the leaf.

2. Then, Fleetwood came along and fixed the leaf. He fixed it with his paws.
3. Sera came along and fixed the leaf. Then, it did not break anymore.

4. Then, the leaf went back home. It lives on a tree. The tree is gold and silver and no other tree has been that color that the leaf has seen in his life.

5. Then, the leaf was lonely because the leaf family that he lived with was not there. The leaf family was buying some groceries.

6. This is the leaf store. It has lots of leaves.

Figure 4.24. Book bout a leaf by Ella

The teacher read each story created by the children. For me, the most interesting thing about them was how children’s ideas affected each other. The children loved to listen to their own stories and asked the teacher to read the stories over and over again. The children’s desire to
be connected with the world and each other became a force for further creation. In particular, May’s concept of a leaf, being broken then fixed, intrigued other children and influenced their own stories. Also, May’s idea of “leaf is looking around for eating some grass” seemed to influence other children’s ideas about “grocery store.” The children wanted to share their books with others, so the teacher read them one by one to the large group. In doing so, the teacher provided further provocation for the children to reconnect with leaves. As might be expected, the children who hadn’t made a book wanted to make one. In Deleuze and Guattari’s (1987) words, the desire to make a book was contagious. This time, the teacher suggested the class make a collaborative story. All 10 children wanted to participate in this new event.

To decide who would start, the children picked numbers out of a hat and the child who picked number 1 began, “Once upon a time, there was a tower that was ruined.” Everyone’s attention was immediately engaged. I did not expect a story about a tower. In fact, the teacher and I hadn’t suggested a topic assuming that the children would make a story about a leaf. But now we were curious as to how the story would unfold with a new idea, a ruined tower. The following is the children’s collaborative story about a castle.
Figure 4.25. The children making a collaborative story about a castle.

1. Once upon a time, there was a tower that was ruined. Sarah was so sad and she was a princess.

2. Andrew was the prince with a sword and a horse. The prince was saving the princess from the bad guys.

3. The prince had the sword and the horse and he was giddying up to save the princess from the ruined tower.

4. The tower broke into 100 pieces.

5. The tower was fixed by the princess and then was broken again because the bad guys came again and followed the maze to the castle, the newborn castle.

6. The doggy barked the bad guys away. Then, the doggy hammered the castle back together. The doggy got stuck in one of the nails and then the kitty rescued the doggy. The kitty put a band aid on the doggy.

7. All the bad guys came back and ruined the castle again.

8. Sarah went down and said, stop, stop, don’t ruin our castle, we only want it high and fixed, and not broken,

9. The castle fell down on the dog. He got hurt and kitty put another band aid on him.
The kitty came and asked the princess to come and help to fix the castle.

10. And doggy came to help and everybody helped to fix the castle together.

Figure 4.26. The children drawing their collaborative story, a castle, together.

The children seemed very excited about their collaborative process, and they asked the teacher to read their stories over and over again. Tina and Ella wanted to illustrate it and together drew a castle, a princess, a prince, a dog, and a cat. Making a story together demanded the children listen to each other, respect other’s contributions, and connect the previous storyline with their own. Initially, one child’s book about a leaf inspired others to make their own books. This desire became a new event, making a collaborative story about a castle. Throughout, the concept of being broken and being fixed continuously affected the plot though the subject was no longer a leaf. The children’s collaboration made me realize that adults can unconsciously hinder children from working with their own desire by directing learning in more rigid ways. Although the teacher and I had recognized that the children were captivated with the idea of being broken
and being fixed, we assumed that the topic would be a leaf and were puzzled by the shift. The event helped me to see the ceaseless connections children create with each other, materials, and ideas, and how an assemblage of desire is created.

According to Wise (2005),

An assemblage is not a set of predetermined parts that are then put together in order. Nor is an assemblage a random collection of things, since there is a sense that an assemblage is a whole of some sort that expresses some identity and claims a territory. (p. 77)

An assemblage is a collection of diverse elements. The children’s story brought together particular relations and elements: a castle, a princess, a prince, bad guys, destruction, renewal, so on. The elements comprised the effects of the assemblage. Wise (2005) explained of Deleuze and Guattari’s assemblage, “we do not know what an assemblage is until we find out what it can do . . . An assemblage selects elements from the milieus (surroundings, the context, the mediums in which the assemblage works) and brings them together in a particular way” (p. 78).

The story started from the ruined tower. The tower became fixed through the continual attempts to repair it. Being hammered, receiving a bandage, being rebuilt, and becoming a 'newborn' castle are the traits that constitute an assemblage in this story. The children continued to develop the plot based on the ideas of being broken and being fixed. The two ideas worked as a force for pushing the story forward. These concepts circulated and transformed within the assemblage. According to Wise (2005), “we can enter into an assemblage through a process of taking up or taking on the particular relation of speed, slowness, effectivity and language which makes it up” (p. 80). Throughout the story the children worked with a problem, being broken. When the tower was ruined, everyone appeared to be sad and disappointed. Confronting the “bad guys” who were breaking the castle became motivation to continue to engage. Following Deleuze (2004), making a collaborative story was a form of construction, emotional engagement, and
participation rooted in the body of experience; it was a complex set of “actions and passions, actions and reactions, multi-sensorial complexes” (pp. 58–59).

4.5.4. Leaf-Wing.

One morning after the collaborative story-making, Sylvia, the teacher, and I met to share our reflections on children’s learning through their encounters with leaves. Sylvia mentioned a leaf-wing exploration in her studio prior to my involvement. The children had observed different kinds of leaves, then drawn and cut out leaves and attached them to their shoulders or held them like extended wings. The children called them leaf-wings and pretended to fly with them. My interest in the leaf-wing concept led me to consider revisiting the experience. When we showed them photographs of their prior leaf-wing creations, the children’s reflections on their experience became a new context for learning.

Figure 4.27. The girls who spontaneously created leaf-wings are revisiting their leaf-wing exploration documentation.
Figure 4.28. Leaf-wing exploration in October.

Sarah: Wing is the kind of thing that bird uses to fly on.

Ella: No, wings and feather make them fly.

Teacher: How about a leaf?
Sarah: A leaf that thing fall off from the tree and only when it is winter.

Ella: No, leaves fall off from the tree when fall comes and when spring comes, the leaves turn green on the tree. When spring comes back, the leaves come back nice and green.

Sarah: When the leaves fall down from the tree, that means it is fall, and then mommy will put you jacket on because it is cold and close to Halloween and when there is snowfall, that means it is really winter time and then when you go to sleep, Santa comes and then, next day you see lots of presents and you open the present. In the summer time, the leaves go back to the tree, and then they turn green.

Ella: No, in the spring they turn green. But some of leaves are red.

Teacher: What is a leaf-wing?

Sarah: A leaf-wing is a kind of wing that fairy has on her back and they fly and they go flap, flap, flap, and they fly like this and then leaf back on the tree. Then, when the fairy wants to fly again, the leaf-wing goes to her back.

Ella: When the leaves are green, they are really, really, nice. And they are soft and when they fall off from trees, they are look like that. A leaf-wing is when you have a leaf on your hand, when you tape the leaf on your hand, and you try to fly. But, if you really want to fly, you have to put lots of feathers, not leaves. So leaf-wing is not for real flying. It is for becoming a fairy. If you want to be a fairy, you have to have a leaf-wing.

Tina: If you want to be a fairy, you need to have a leaf-wing. Then, you can fly with other fairies. When you are not flying, leaf-wing goes back on the tree.

The children’s thoughts unfolded in unexpected ways evidenced by their dialogue about leaf-wings and fairies. Before we listened to the children, we had assumed that leaf-wings would remain in their thoughts as flying aids. However, a leaf-wing was more. A leaf-wing could transform a mortal into a fairy. The concept was not fixed; it reflected several theories. For Sarah and Tina, a fairy uses a leaf-wing for flying. When a fairy is not flying, the leaf-wing goes back to a tree where it lives as a leaf. However for Ella, a leaf-wing is used if one wants to transform into a fairy. If you want to become a fairy you need to find a leaf-wing. The children’s theories behind the concept showed their creativity as they encountered the forest, leaves, and ideas.
According to Deleuze and Guattari (1994), philosophy creates concepts, and concepts produce a direction for thinking. A concept in this philosophical sense is different from an everyday concept. For Deleuze, our daily use of concepts follows the model of representation, where we assume that there is a present world that we re-present through shared concepts. But Deleuze and Guattari refused to see the everyday or common form of something as its essence. For them, concepts are creative rather than representational. A concept in the philosophical sense moves beyond any example or model, in fact it moves beyond what we presently know. Deleuze and Guattari (as cited in Olsson, 2009) described this movement as nomadic thinking “that has no sedentary and stable place within which to perform its activity. This thinking not only deconstructs codes and habits but actually connects them together in “new and unexpected ways” (p. 25). The multiplicity and complexity of leaf-wings show concepts as Deleuze imagines. For example, leaf-wing is not a fixed image. It reflects on their ideas and experiences.

According to Deleuze (1994), philosophical concepts should not be examined in isolation. Instead we have to understand them through the new connections that are made through experience. If we stop trying to fix the meaning in one form, language can create new concepts. When we first heard about leaf-wing, we organised the word into our fixed perspective and assumed that the children were substituting 'wing' for flying. However, children held different theories about the purpose of leaf-wings that changed our perceptions. The leaf-wing was presented as a creation, not as a representation. “A concept provokes us, dislodges us from our ways of thinking and opens experience up to new ‘intensities’: a way of seeing differently” (Colebrook, p. 20). Colebrook (2002) stated,

for Deleuze, a concept is not a word; it is the creation of a way of thinking . . . The formation of a language responds to a way of approaching the world, so that language is an action, or a constant question and creation in response to experience. (p. 20)
Metaphorically speaking, a leaf-wing is about transforming our ways of thinking to embrace children’s ways of approaching the world. A leaf-wing created a possibility for thinking beyond what was assumed, something different from everyday understanding.

Providing a space where the children can deeply engage with ideas provokes them to follow new thoughts, create new lines of flight, as the children did with leaf-wings. Semetsky (2007) asserted, “Deleuze’s potential contribution to education theory is specified in terms of the pedagogy of the concept. The creation of a concept is a function of experience and is inseparable from affects and percept” (p. 197). Deleuze (1994) stated that:

We learn nothing from those who say: ‘Do as I do’. Our only teachers are those who tell us to ‘do with me’, and are able to emit signs to be developed in heterogeneity rather than propose gestures for us to reproduce. (p. 23 as cited in Semetsky, 2007)

As teachers, we did not propose that the children reproduce knowledge or take a pre-determined path to learning. The journey began with a line of flight made by a single falling leaf and it unfolded for us in a myriad of unexpected ways. Making stories with a leaf as protagonist gave the children new forms for visualizing their thoughts and creating their own language to express them. Collaborative story construction brought individual stories together with more concepts and shared interpretations of experiences. Revisiting their previous studio explorations of 'leaf-wings' provided the children with further opportunity to work with their own theories and helped them to make even more connections with what they encountered, creating new meanings and understandings.

In Chapter 5, I revisit my three research questions in order to consider the ways in which the events of Chapter 4 have addressed these. I also discuss the implications of my study for early childhood education.
CHAPTER FIVE

CONCLUSIONS AND IMPLICATIONS

While walking in the forest with children, I encountered trees and places that had no names and meanings until the children identified them. The forest became special to the children because they connected with it in rich and complex ways through their stories and their imaginative play. Thus, the trees, rocks, holes, branches, sticks, leaves, birds, sky, and pathways we explored together were infused with the significance children gave them; they became unique, unlike objects in any other forest. The children developed strong relationships with two special trees, a rainbow tree and a climbing tree. Initially, there were no paths to these two trees. Over a period of time, as the children made regular trips, they made their own tracks through the forest and created their own pathways. Working with their own ideas and narratives also gave children opportunities to make their own tracks, authentic pathways to learning that were not imposed upon by our adult ideas. In the process, we adults became co-learners with the children.

Following their ideas and narratives was similar to the experience of being guided through the forest by the children.

In this Chapter, I will revisit my three research questions in order to consider the ways in which the events of Chapter 4 have addressed these. I also discuss the implications of my study for early childhood education. My first question was: What happens when researchers and teachers follow children’s ideas and narratives through the philosophical lens of Deleuze and Guattari? The answer that resonated most for me is that in a sense, through this project, the teacher and I became as children again, open to discovery and wonder. We learned to see through their eyes the multiplicity of connections the forest provided, the endless paths to learning.
Throughout my dissertation, Deleuze and Guattari’s concept of rhizomatic thinking provided an original way to interpret the children’s learning. This interpretation differs from more traditional views on the development of children’s thought that is seen as moving from simple to complex, or from instinctive to logical. Seeing children’s narratives, conversations, and deliberations as evidence of rhizomatic thinking meant that I learned to be more open to children’s multiple encounters with each other, with materials, and with the environment. I could understand children’s responses to the forest and their narratives about experience as generative, creative, and connected, not simply random or irrational.

My focus on the events described in Chapter 4 was on the ideas, stories, and experiments that emerged through assemblages, transformations, and encounters. The teacher and I took the children’s ideas seriously; we considered them to have pedagogical value. To work with children’s ideas and narratives meant to work with the possibilities and potentials expressed through our young students’ communication with us. Thus, learning resulted from the dialogue and reflections that emerged through children’s experiences, not from our reliance on predetermined lesson plans. In this respect, ideas and narratives produced new concepts and new events that moved the learning forward, creating additional lines of flight.

The teacher and I continued to ask questions as we moved through the events. What were the children exploring in the group? Which ideas and concepts have they created? What stories have developed? What has been collectively produced through intra-action with materials? How do children’s ideas and narratives function as social cohesion for the group? In this context, learning took place in between children in a relational situation and it was transformed through dynamic interactions. As we saw earlier, Deleuze (1995) believed thoughts were events. The event is always an element of becoming, and the process of becoming is itself unlimited. Therefore, working with children’s ideas and narratives opened us up to the unpredictable, the
spontaneous, and the dynamic.

The events that emerged in the forest project, as shared in Chapter 4, describe a form of investigative learning with children that used the children’s ideas and narratives as pathways or clues to follow. For example, the mystery girls event shows how we supported the children’s imaginations to flourish by giving them the opportunity to build a treehouse in the classroom. Through their story of mystery girls the children made even more connections with the forest and worked intensely with their own ideas. The story created reciprocity in learning and opened an imaginary world. The children had opportunities to invent and experiment and their ideas were developed in relations with each other and with problems that arose. The stories of mystery girls provide an illustration of such generative, creative thought. The creation of mystery girls transformed the forest for the children. This event might make us think differently about our ways of teaching in early childhood settings. The children’s learning in this context was not focused on ordinary representation but on creating and connecting ideas through their own theories. It was a meaning making process rather than the transmission of pre-existing knowledge. The story of mystery girls was evidence that given the opportunity and the stimuli, children can create novel ways of thinking and seeing. Through their fanciful engagement with imaginary characters, the children began to see the forest differently; their enchantment was contagious and other children joined in, instantly able to suspend disbelief.

The road making event shows how children’s initial desire and the emerging assemblage of desire that grows with each discovery and interaction can be a positive production in the learning process. The children’s desire to make a road prompted the introduction of clay, leading to productive intra-action between the children and materials. In addition, this event shows a community of learners working together on a shared venture through dialogue and experimentation. The children became a collective by working with ideas, inventing challenges,
and setting a goal to reach the door with their road. In the process, the teacher and researcher became co-inquirers by listening to the children and being continually responsive to the desire expressed by the children. The event demonstrates that an assemblage of desire can lead to inventive collaboration in learning. At the beginning of this event, the teacher and I did not know how this would evolve. Rather, this event unfolded with the children’s provisional ideas and desires at the centre of the learning process. The teacher and I were also immersed in the process of learning. We supported their collective and intense experimentation by offering appropriate materials, time, and space. The event evolved through ‘collective assemblages of desire,’ the concept put forward by Deleuze and Guattari.

The collaborative experiment with mini cars was carried out in singular ways as children encountered new problems and followed through with inventive solutions. New materials were added so the boys could continue to explore. The children spent a great deal of time discussing and changing the physical layout to make their game more interesting. The teachers facilitated borderless environments, sufficient freedom, and opportunity for the children to work with their ideas and desire and negotiate with each other. Through interaction and experimentation, the boys shared ideas, dealt with issues, and learned new things about gravity, force, and speed. The experiment demonstrated the power of a community of learners experimenting and inventing together. An assemblage of desire was created and continued to evolve through the process of children’s learning.

The flight of leaves event helps us to understand children’s learning as continual engagement with phenomena and people. We saw children’s unique perspectives on the world as they communicated their delight and wonderment about flight and movement. Ella told us, “When things fall down, they get hurt or broken. When leaves fall, they are beautiful.” The children’s poetic descriptions of falling leaves made me curious about movement of falling
leaves, too. Their ideas also influenced Hailey, who dropped a leaf in the air to see its movement. This gesture led us to conduct leaf experiments. The learning began with a line of flight made by a single falling leaf and it unfolded for us in unexpected ways.

The 'flight of leaves' experience presents the importance of providing space where children can experiment with emerging questions and invent new ways of thinking. The children discovered that each leaf made a unique line of flight. Through this event, I became convinced of the value of working with children’s curiosity and spontaneity. If we are curious about what children are interested in, it leads adults to their wonderful ideas and inventions. In the 'flight of leaves' event, following children's curiosity is likely divergent discoveries rather than convergent ones.

The events explored in Chapter 4 also reinforced the belief that learning is creative rather than representational. The children’s ideas about leaf-wings reflected their experiences and understandings of the forest. The concept of the leaf-wing was presented as an invention, and the ideas about it traveled from child to child. Collaborative story construction brought individual stories together with more concepts and shared interpretations of experiences. Through story making children’ ideas were viewed as resources for each other’s learning. The event helps us to see the multiple connections children create with each other, with materials and with ideas, and how an assemblage of desire is created. The children’s collaboration in the form of a story showed us that when adults do not intervene with their own logic, children’s creative flow of ideas takes prominence. Throughout the story of the ruined tower, the children worked with the idea of being broken and ruined and being fixed and hammered. These two concepts worked to move the story forward so that constructing a collaborative story emerged as a form of becoming for all involved. What the philosophical lens of Deleuze and Guattari offers then is a means to
value the authenticity of children’s learning for its own sake rather than trying to shape it into more rational thought.

My next questions for this study were the following: How can a pedagogy of listening be understood as a way of co-constructing curriculum with children? What is the impact of a pedagogy of listening on early childhood curriculum and teaching? To create learning environments where children can work with their own individual and collective ideas, it is clearly important for teachers to understand and recognize children’s interests and desires. The teacher and I welcomed children’s contributions as essential to an emergent curriculum. All the learning events in the forest started from the flow of children’s ideas and evolved into deeper collective engagement with phenomena. Through listening to the children I was invited into their imaginary stories and inventive ideas, such as mystery girls, leaf-wings, falling leaves, end of the world, and so on. Their fantasies took on greater significance when adults listened to them and made them visible through pedagogical documentation. According to Dahlberg and Moss (2005), a pedagogy of listening is “an approach to pedagogy that is inscribed with the ethics of an encounter” (p. 97) and it foregrounds the importance of otherness. My study was premised on the belief that children often develop interesting ideas and stories that can give us insight into their inner lives. These ideas and stories might well be revealed when children play with their peers, whether or not adults are listening to them. However, when adults welcome their ideas and provide space where children can work with their ideas, learning is not reduced to the passive transmission of knowledge. It instead becomes generative and interactive, communication and meaning making that happens through relationships and surprising, provocative moments. According to Dahlberg and Moss (2005), “what children say surprises us, and helps us to interrupt predetermined meanings and totalizing practices” (p. 101). In my study, children’s rhizomatic ideas and narratives were involved in building complex and diverse learning journeys. Understanding and
perception were produced through listening and dialogue. We deconstructed and reconstructed meanings and ideas, and challenged the concept of knowledge as something representational. As we followed the children’s rhizomatic thinking, learning became transformational and inventive, truly a living curriculum.

The pedagogy of listening played a significant role in my study, showing me that teaching is far more than transmitting and demonstrating what I know. Teaching begins by paying close attention. Rinaldi (2006) described,

Learning is determined by the "learning subject" and takes shape in his her mind through action and reflection . . . Listening, therefore, as "a listening context", where one learns to listen and narrate, where individuals feel legitimated to represent their theories and offer their interpretations of particular question. (p. 66)

Thus, listening can be used as a way of respecting children’s ideas so that the children feel their ideas are valued by teachers and the researcher. Paley (1986) wrote,

It is curiosity, not answers that we model. As we seek to know more about a child, we demonstrate the acts of observing, listening, questioning and wondering. When we are curious about a child’s words and our responses to those words, the child feels respected. The child is respected. “What are the ideas that I have that are so interesting to the teacher? I must be somebody with good ideas.” (p.127)

My study drew out the meaning making processes of children and explored their emerging understandings of the forest and the connections they created through encounters with ideas and surroundings. Listening to children’s own narratives was akin to following pathways that wound through their experiences with the forest. In particular, new concepts, ideas, and stories were created through conversational narratives among the children and intra-action with materials and their surroundings.

By listening to the children, the teacher and I shifted our perspectives on materials and became aware of how materials act upon thoughts and create concepts. We found that the forest was full of materials to touch, discover, and explore. Mystery girls, leaf-wings, and road making
are examples of inventive learning that was sparked by engagement with materials in the forest. In this respect, materials played critical roles in my study. The teachers and the researcher became co-inquirers with the children, being aware of intra-activities taking place in learning events between children and materials. Through these intra-actions with materials and surroundings, children were able to take their thinking further and express themselves in unanticipated ways. This perspective has implications for education as a generative practice and requires a reconceptualization of both teaching and learning.

From my own experience with pre-service and in-service teachers, I have noticed instances when teachers miss opportunities to listen to children’s ideas and theories, because they unconsciously or consciously view the child as an empty vessel or a blank slate instead of someone with ideas and theories worth hearing. Recently, I went to a classroom of four-year olds to visit a student whom I was supervising on practicum. My student was talking to a boy at the water table she had set up for her activity for the day. I sat nearby to observe. A girl who was playing on the carpet with dolls ran to my student and exclaimed excitedly, “Look at my gloves!” The girl was wearing her socks on her hands and eagerly held them out to my student. I was curious about the girl’s idea of gloves and what she would have to say. Unfortunately, as soon as my student heard the girl, she responded, “Don’t you remember? Socks are for feet, not for hands.” The girl returned to the carpet without saying anything.

I was disappointed that my student had not seen the potential sparked by the young girl’s actions. The moment could have been a catalyst for a conversation about different ways people keep warm, about what socks and gloves might have in common, about why mittens might have thumbs, and so on. In early childhood education classes, we emphasize the image of the child as a competent child and full of potential. However, what I have observed in much current practice is that children are still viewed as lacking, needing to be filled with information and skills. I believe
that if we truly believe children to be competent and intellectually rich, we will be genuinely curious about their ideas and we will pay attention to what they say and do. Just as importantly, we will want to know the reasons they provide for their actions. We will want to ask why. Rinaldi (2006) claimed that

If we believe that children possess their own theories, interpretations and questions, and are co-protagonists in the knowledge-building processes, then the most important verbs in educational practice are no longer ‘to talk’, ‘to explain’, or ‘to transmit’—but ‘to listen’. Listening means being open to others and what they have to say, listening to the hundred (and more) languages, with all our senses. To listen is an active verb, because it means not just recording a message but also interpreting it, and this message acquires meaning at the moment at which the listener receives it and evaluates it. To listen is also a reciprocal verb. Listening legitimates the other person, because communication is one of the fundamental means of giving form to thought. (pp. 125-126)

Creating environments where children can freely express, communicate, and exchange their thoughts is worth doing because it helps children bring thoughts and language into being.

My third question related to the role of the teacher in children’s learning: How can a teacher support the creation of learning contexts that will enrich and extend children’s thinking and learning? The teachers and I supported the children by offering arrangements of natural materials in the classroom that might produce more connections to the forest. Sticks, leaves, trees, seedpods, dried flowers, and rocks along with clay and paints became inspirations for these children. They enlisted them to create new concepts and imaginary stories in the classroom as well as in the forest. We critically reflected on each learning event so we could create even more opportunities for the children to engage with materials. Observing how the children worked with the materials helped the teachers and the researcher to rediscover the richness, the beauty, and potentiality of materials. Reggio educators speak of the language of material,

as children use their minds and hands to act on a material using gestures and tools and begin to acquire skills, experience, strategies, and rules, structures are developed within the child that can be considered a sort of alphabet or grammar. (Gandini, 2005, p. 13)

Children develop language through their interactions with materials. “It is during the construction
of that relationship that the possibilities of modification, transformation, and structuring of the materials present themselves, so that the transformed material can become a conduit for expression that communicates the child’s thoughts and feelings” (Gandini, 2005, p.13). In my study, shared experimentation with, and conversations about, materials set the groundwork for children’s developing understandings of the forest. It was through the co-exploration of materials such as leaves, clay, sticks, or plasticine, etc., that children engaged in the transformational process of meaning making. Meaning making became a process of co-construction of knowledge (Vygotsky, 1978).

Reggio educators also speak of the languages that are developed when children engage in the active exploration and construction of materials. By encouraging engagement with a variety of materials, educators foster the development of the children’s vocabularies and modes of expression (Gandini, 2005).

Searching for and discovering how a particular material presents itself and is transformed helps the child acquire knowledge about the material itself—about texture, form, shape, color, exterior and interior appearance. The child gradually learns that a material can be used in many different ways. Children acquire a large spectrum of knowledge about materials, and this gives them the chance to use different alphabets in their individual process of representation and give shape to their own ideas. (Gandini, 2005, p. 14)

In this view, materials are vehicles for expressing and communicating ideas and are intrinsic parts of children’s learning (Schwall, 2005). In my study, the children modified, transformed, and restructured their ideas and stories as they intra-acted with materials. The materials became the means for children to engage in meaningful, imaginative explorations.

In addition, the teacher and I facilitated the children’s learning by using a pedagogical documentation as a tool for reflection and assessment. The events in my study were conceived within a framework of listening. Pedagogical documentation revealed the content of what we listened to. Documentation helped us capture the complexities of thinking, stories, actions,
reactions, and emotions of the participants. It also helped us to return to previous events that we found interesting. The photographs and narratives we collected and displayed gave opportunities to engage with ideas and concepts once again. So, documentation became a relational field that connected past and present, and children and adults. According to Dahlberg and Bloch (2006), the use of pedagogical documentation is a way to move away from the domain of recognition, representation, and regulation expressed in practice through observing, assessing, and normalizing children. With help of documentation, my study presents learning driven by encounters with the forest, materials, and ideas; lines of flights were created in the process of learning.

In my study, I questioned the traditional view of knowledge as representation and reproduction of what we already recognize and called into question the practice of transmission in early childhood teaching practices (Dahlberg et al, 1999). Through the events of Chapter 4, I demonstrated the promise in following children’s emergent ideas to extend possibilities for learning. The learning journey with the children was like sailing on a limitless sea of children’s thoughts and imaginary stories without knowing what is on the opposite shore. Throughout the project, there were many moments in which we had to make decisions within our uncertainty. Because we did not know what would happen next, we had to trust the children and ourselves. Listening “means to be open to doubts and uncertainty. This listening accepts frustration” (Rinaldi, 2004, p. 3). Sometimes we struggled when we had to make a decision because there was no recipe to follow. But this struggle led us back to the children’s interests and curiosities as catalysts for new questions to ask. In order to carefully listen to their perspectives, the teachers and I created spaces where children could freely express their thoughts, generate narratives, and listen to those of others. Children’s ideas became contagious and new understandings were created between them.
The study continues to transform the ways I think about teaching and learning. The teachers and I actively engaged with children to consider their perspectives on learning and promote their participation. It was a process of transforming ourselves to create our own pathways of learning through experimentation. It was also about allowing ourselves to become aware of spaces, materials, and environments that we encounter in everyday life and recognize the potential these have to impact our learning. According to Deleuze and Guattari (1987), experimentation entails mapping and creating rather than tracing and representing:

What distinguishes the map from the tracing is that it is entirely oriented toward experimentation in contact with the real. The map does not reproduce . . . it constructs . . . it fosters connections . . . The map is open and connectable in all of its dimensions; it is detachable, reversible, and susceptible to constant modification . . . It can be drawn on a wall, conceived of as a work of art, constructed as a political action, or as meditation . . . A map has multiple entryways, as opposed to the tracing, which always comes back to the same. (p. 12)

In my study, young children’s learning is reminiscent of what Deleuze and Guattari conceived as map making (1987). Map-making reveals children’s thinking to us; it lets us follow their journey; it allows us to see their lines of flight. The particular learning journey of these children cannot be reproduced in other contexts or with other participants because it was created through intimate connections and relations between these individuals and this forest. The children created their own map of their learning journey. There was no prefabricated map for them to follow. One final event, forest map making, serves as an overarching concept to talk about what a pedagogy of listening can reveal about children’s learning. The forest maps created by these children helped me to understand their thinking and learning processes as they evolved and transformed through their encounters.
5. 1. Forest Map Making: Presenting the Children’s Learning Journey

Through the course of the project, the forest had become a rich resource for making connections and meanings, creating stories, and inventing ideas. There was a sense of wonder in each visit. Lines of flight were created through repeated trips. The children made special connections to places in the forest and their imaginations came alive through engaging with these places. For the teacher and myself, the forest project represented a journey to help children make sense of the world. At the conclusion of the forest project, we asked the children to draw a map of the forest as a way to help visualize the children’s conceptions of the forest and their experiences there. During the map drawing, an interesting idea emerged, ‘the end of the world.’

The following is the children’s explanation:

Sarah: ‘End of the world’ is when you see the crack right at the end of the side of the world and you see the ocean.

Teacher: So, end of the world is where the ocean is? If we go down to the ocean, do you think that will be end of the ocean?

Hailey: I think she means that at the end of the world there is space. But, my end of the world there is a waterfall and we can go big slide down to the waterfall. So, at the end of the waterfall would be end of the world.

Sarah: No, I need to tell you something; the bottom of the waterfall is not the end of the world. I mean the top of the waterfall is the end of the world. Then you go down the waterslide to get to the sea end of the world.

Tina: There are lots of planets there.

The idea of ‘end of the world’ developed through the map-drawing event. The other children picked up Sarah’s idea and transformed it. Map making produced theories, made connections, and created lines of flight we could all trace. The maps made visible the children’s rhizomatic ways of thinking, illustrating the view that a thought creates itself as it goes on (Deleuze & Guattari, 1987), leading to the birth of a new critical and creative language. The map does not
seek to faithfully represent the children’s knowledge, rather it serves to make visible connections with children’s experience and to help us understand the relationships they created through their journeys in the forest. “Maps have multiple entryways and are oriented to experimentation and adoption” (Deleuze & Guattari, 1987, p. 21). The maps children drew revealed unpredictable articulations of connections and encounters.

In Sylvia’s art studio, natural materials, things like stones, sticks, acorns, leaves, and plasticine were beautifully displayed in small baskets and children were welcome to intra-act with them. One girl, Venice, showed a great interest in natural materials and asked us if she could make a map with them. Thus drawing flat maps shifted to making a three-dimensional forest map, which became an exciting event for the other children, too. After deciding who was going to make what part of the map, the children had to decide where the school and the forest should be located. First, Tina made a school with clay and placed it on the map. Then, Hailey made the pathway with clay starting from the school to the forest. Hailey’s pathway helped the other children to locate their parts of the forest:

Ella: These are prickly bushes and rainbow tree. I want to make lots of bushes so that forest looks forestry.

Sarah: At the end of the world there are lots of X and this one is the X on the tree showing end of the world starts here. So we know this is the end of the world. I am making a prickly bush to protect the X. If the bush pricks you, you get deadish magic. And only kid hunters can touch it, nobody else.

Ella: At the end of the world, let’s have some soup. I am making a flower soup.
Tina: I am making lots of planets. At the end of the world, there are lots of planets and flowers.
Figure 5.1. The children’s collaborative 3D map with clay.

During the process, the children were immersed in telling fantasy stories and the map became a means of graphically presenting their imaginary encounters. It was fascinating to see how ideas moved around the map-making event and traveled between the children, a living example of the value of the small group learning. Working as a group made it possible for ideas to evolve as children attended to what others were saying and doing. The materials also became inspirations to the children as they created and worked with emerging ideas. As Deleuze and Guattari would interpret it, materials, maps, imaginations, and children were immersed in the process of becoming and transforming.
The educators in Reggio Emilia have called the environment ‘the third teacher’ with reference to its strong agency in the events of learning (Edwards et al., 1998; Rinaldi, 2006). In other words, materials have force and power to transform our thinking. Lenz Taguchi (2010) wrote:

Learning does not simply take place inside the child but is the phenomena that are produced in the intra-activity taking place in between the child, its body, its discursive inscriptions, the discursive conditions in the space of learning, the materials available, the time-space relations in a specific room of situated organisms, where people are only one such material organism among others. (p. 36)

She argued, “all these organisms and matter in the event of learning must be understood as being performative agents. They are intra-acting with each other differently, with different intensities and force, depending on the different potentialities of each organism” (Lenz Taguchi, 2010, p. 36). Making a three-dimensional map using various materials was a dynamic process of intra-
activity. It illustrates an ongoing flow of agency focused on the “in-between of intra-activity, as well as on the interdependent and intertwined nature of the relationship between discourses, things, matter and organism” (Lenz Taguchi, 2010, p. 29). The children’s map contained not only locations and topographic features but also their experiences and imagination. While the teacher and I were reflecting on the map-making process, we thought it would be interesting to ask the children about their definition of a map.

Sarah: It shows where to go.
Maybe, we can go to forest today.
Before we go we can make a humongous map and then you can hold the map and it tells us where to go and we can go to the end of the world where you have never been before. I have been to the end of the world and nobody else does. So I will lead you guys there. To go to end of the world, we need a map.

Teacher: In the map, what do you want to include?

Sarah: We need ice in case we get hurt.
We need binoculars to see things far away.
Hailey: We can bring some supplies that we can dig and rake.
We need shovel.
Ella: We need sunglasses if it’s sunny.
We need hats and hoods if it’s raining and snowing.
Hailey: We need trees.
Sarah: We need bears.
We need lots of people so we can be all kinds of animal catchers. And I am going to be one of the creatures that are going to be caught by Ella and Hailey. You guys have to put me in the animal cage.

Teacher: So, does a map tell you who you can be?

Sarah: Yes, I am going to be the puppy-lion.
Ella: Then, I am the puppy hunter.
Hailey: I will be the guard.
Sarah: Let’s go and make a gigantic map.
According to the children, a map of the forest shows us things that are in the forest, like a rainbow tree, climbing tree, workshop, tree house, and the tree where mystery girls play. A map also tells you what to bring to the forest like supplies. In addition, a map tells you who you can be in the forest and where the imaginary world begins. The teacher and I decided not to bring our own knowledge about maps into the learning. Instead, we wanted to start from the children’s conceptions and make those central to the learning process. As the children created the map, they were connected to the forest again and created new ideas and stories. We never knew what to expect as they proceeded.

Throughout my study, I discovered the multiplicity and complexity of children’s ideas and began to see their potential for an emergent curriculum that is rich, nuanced, and exciting. Although children’s participation in decision making and in curriculum development is valued by researchers and some policy makers, it becomes difficult for teachers to make room for children’s
perspectives in a prefabricated curriculum that is designed to apply to all young children, regardless of diverse contexts and interests. In contrast, my study presents practical and theoretical possibilities for using children’s ideas and desires to create curriculum by presenting exemplars. These exemplars are the events described in Chapter 4 and interpreted through the conceptual frames of Deleuze and Guattari. They can be understood as inspiring instances of an emergent curriculum with children at its heart. The provocations that I provided at the beginning of Chapter 2, 3, and 4 also function as exemplars. They are powerful illustrations of children’s unique ways of viewing the world. Each conversation, discovery or interaction provokes teachers (and researchers) to view children as active meaning-makers in their own right. My findings show competent children who can construct theories, produce creative concepts and stories, and deliberate together about ends and means.

My study also shows how children’s learning flourished when adults took their ideas and enthusiasms seriously. The teacher and I created spaces for children’s desire to generate new experiences and understandings. In this way, the children became part of the process of creating curriculum with the adults who were supporting them. The metaphor of a rhizome provided a valuable framework for re-conceptualizing teaching and learning in early childhood education. Following children’s thinking led to rhizomatic learning that constantly created new lines of flight. These lines of flight are significant because they challenge our assumptions about the best ways to engage young children in learning.

My study presents learning as a journey, a journey of discoveries, relationships, and connections. Everyone has different experiences in life, because each of us selects different things that are compelling, and follows his or her unique pathway, creating different meanings during the journey. Every setting has unique characteristics and every relationship is unique. Each relationship is based on different motivations, inventions, and discoveries. Therefore, it is
important to see this dissertation itself is not a recipe to follow but is a provocation and an inspiration. It is a way of leading a reader to open a door on his or her own work. For anyone who wants to do research with young children and listen to children deeply, you who need to attend to the uniqueness of context. Your questions will be different than my questions. Even the participants in my study did not step into the same forest twice. As such, someone who takes children to the same forest will experience a very different place than I did. Like entering the forest as a newcomer with open eyes, I hope we can honour and acknowledge the variety of experiences, perceptions, approaches, and experimentations in early childhood learning.

The BC Early Learning Framework (Government of British Columbia, 2008) speaks of young children “as capable and full of potential; as persons with complex identities, grounded in their individual strengths and capacities, and their unique social, linguistic, and cultural heritage” (p. 4). This image of the child also appears in policy and curricular documents elsewhere in Canada. If this image is the one we want to hold to in early childhood education, it should be reflected in our teaching practices and in the environments we construct for young learners. Malaguzzi (1993) stated that a child is connected and linked to his or her reality of the world: “She has relationships and experiences. We cannot separate this child from a particular reality. She brings these experiences, feelings, and relationships into school with her” (p. 9). Malaguzzi’s (1993) beliefs have led me to embrace a notion of learning based on privileging children’s perspectives. Though a pedagogy of listening, the teacher and I brought the children’s particular realities and experiences into learning. It led us to deeply engage with the children’s endless construction of stories and theories. These became the foundation of our curriculum, one that reflected an assemblage of desire in which we can see curiosity, experiences, experimentation, concepts, stories, problems, otherness, complexity, and multiplicity.
Occasionally, the teacher and I felt uncomfortable venturing into new and unfamiliar territory without the reassurance of a pre-formed curriculum or a more predictable lesson plan. When moments of doubt about our uncertain path occurred, the following quote from Malaguzzi (1993) helped to restore confidence:

> We need to be open to what takes place and able to change our plans and go with what might grow at that very moment both inside the child and inside ourselves. The educator needs to be able to play with the things that are coming out of the world of children. Each one of us needs to have curiosity, and we need to be able to try something new based on the ideas that we collect from the children as they go along. As life flows with the thoughts of the children, we need to be open, we need to change our ideas; we need to be comfortable with unknown. (p. 10)

My own research journey also wound through the forest project in unexpected ways; I did not imagine I would become so deeply immersed in the children’s discoveries and explanations that I, too, would be enchanted by encounters with leaves, sticks, and rainbow trees. Following children’s lines of flight required me to be open to possibilities and connections they brought into their own learning, and to be willing to transform myself as a learner and a researcher throughout the process. Rinaldi (2006) stated that listening requires “a deep awareness and at the same time a suspension of our judgements and above all our prejudices; it requires openness to change. It demands that we have clearly in mind the value of the unknown” (p. 65). I also believe that if we value the unknown and welcome unpredictability and spontaneity in learning, children will reveal to us their unique ways of approaching the world. My study confirms this is so. Throughout the forest project, this group of young children searched for meanings and created understandings based on their continual discoveries and interactions. The teachers and I followed their tracks as best we could by listening, watching, and providing space for new and productive interactions. Together with the children we created new lines of flight.
EPILOGUE

Sharing my life with my little daughter has led me see the world like a child again. Her questions around her everyday experience fall on my ears, eyes, and heart, inviting me to be present in her living inquiries.

One late afternoon, I rushed to daycare to pick up my daughter. After gathering her stuff—lunchbox, water bottle, drawings, and her bike—we were set to go. Then, she exclaimed, “Who did that to the sky?” She appeared to be surprised by what happened to the sky. I turned around and looked up. The sky was lit up with the glow of the setting sun. At that moment I did not know how to answer her question. It was complex. Where would I begin? Then, my daughter answered, “Mommy, I know who did it.” I was anxious to hear her because I truly did not know how to answer ‘who’ made the glow. She said, “It is the same guy who makes rainbow in the sky. This guy is really good at making colours in the sky.” I was impressed by how she made connections in her theory to what she had observed.

I have found many possibilities of life and being through my daughter’s personal exploration of the world around her. She shows me multifaceted dimensions of her experiences. All that is required is to place myself beside her and listen. I hope she continues to discover possibilities of life and that she finds her own singularity in thinking. I hope her teachers will be curious about her experiences of the world and are willing to think, marvel, and dialogue with her, rather than simply answer. She is not necessarily asking for explanations or facts. She is looking for a story that makes sense to her. She wonders about everything. I believe that meaningful learning starts from wonder.
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