Making Competence Visible: The Relationship Between Educators' Image of the Infant and Their Empowerment of Young Children as Active Decision Makers

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Prologue

I have been working as an Early Childhood Educator for the past fourteen years, the last twelve of which I have practiced emergent curriculum and Reggio-inspired philosophy. For most of this time I have worked with infants and young toddlers, from 4 months to 2 years of age, and have come to understand just how capable and competent these young explorers are. It seems to me that because babies are generally pre-verbal or have limited verbal language abilities, they are often viewed by adults as less aware, less intelligent, and less capable of independent thought and inquiry than older children. However, my observations of and interactions with infants, and the in-depth relationships I have built with so many of them over time, have given me a much different image of the diverse ways babies learn and develop.

Infants have many ways of expressing their thoughts, emotions, ideas, interests, needs, wants, and so much more. I believe that they are born ready to communicate and connect with others through vocalizations, gestures, facial expressions, eye contact, sign language, and many other methods. In turn, babies require adults to "listen" with so much more than just their ears.

By reflecting on my own experience and observing other educators, I have come to recognize the power adults can have in either supporting or stifling infants' self-perceptions and their ability to actively learn from their environments and the people within them.

At its core, my professional philosophy centres on the belief that infants, like all children, deserve adults' respect, trust, and support in realizing their full potential as competent, active learners. They have the right to be seen, heard, and included in their classrooms, schools, and communities. For young children to be active participants in their lives, they need to be allowed to make decisions for themselves related to their own well-being, fulfillment, and the ways they want and deserve to be treated by others. It is up to the adults in their lives to support their desire to make choices, experiment with options, evaluate outcomes, and reflect on future possibilities. Educators can act as guides and partners in exploration with infants by getting to know them and their ways of communicating, and providing as many developmentally appropriate opportunities

for autonomy and decision making as possible. By doing so, teachers not only become an advocate for the children in their care, but also help infants to find and project their own voices, and share these with others.

Chapter One

This section will provide a general overview of my proposed research and my reasons for pursuing the topic I have chosen. In later sections I will examine these ideas in greater detail. This section has been separated into subsections for organization and clarity.

Research Question

How does the 'image of an infant' held by Early Childhood Educators influence the decision-making opportunities made available for infants within an early learning environment?

Rationale

Over the last several decades, a great deal of research has examined the benefits of play-based curriculum in the early years and the influence of environment and relationships on young children's development. The majority of research into these and other relevant topics has focused on children aged two to five years. Comparatively, very little attention has been paid to the unique educational needs, rights, and experiences of infants.

At the same time, there is a growing body of research indicating that the first two years of life are a critical period for brain development and for an infant's ability to build secure attachment relationships with primary and secondary caregivers. Quality of attachment and social-emotional development in the early years is considered a significant predictor of mental and physical health across the lifespan (Humphreys, Zeanah, and Scheeringa, 2015).

There appears to be a wide disconnect between our current knowledge of infant brain development and the information and resources available to help educators support and scaffold infants' competence and confidence. Compared to preschoolers, infants have fewer spoken language abilities and a greater dependency on adults to help them meet their physical needs. As such, they often require unique responses and supports from teachers who recognize these

infants' competence and wish to help them realize and develop their own potential.

Therefore, this study will aim to explore the minimally-researched area of educators' potential to empower and support infants' as active protagonists of their own learning by building secure relationships based on mutual trust and respect with these youngest citizens. Each teacher's view of infants' care and educational needs and abilities will be linked to the variety and quality of opportunities they provide for these children to develop as active learners and decision-makers in the classroom.

This research will be helpful for infant educators of varying levels of experience who wish to support and scaffold babies' learning and development, but struggle with the lack of resources available to guide and inspire them in doing so. It may also provoke self-reflection for educators who have not previously had the opportunity to question their practices and beliefs around infant care and education. It may even provide a possible catalyst for adapting or evolving their philosophies and approaches as infant teachers.

Research Overview

My research will examine and connect three main ideas as they influence infants' decision making skills: the image of the child, adult-child relationships, and the learning environment in early childhood education settings. In Reggio Emilia, the image of the child pertains to children of all ages. For my research, I will focus specifically on infant educators' image of the infant. I want to understand more about the ways infant educators view the unique abilities, needs, and interests of the children in their care, and how their beliefs influence their practice. I will interview educators who work with children under the age of two years. I believe that "Educators have a responsibility to reflect on the ways their conceptions, subjectivities and practices might enable and constrain infants' capabilities, and to try to minimise that loss" (Salamon & Harrison, 2015, p. 286). I would like to explore the ways teachers who participate in my study engage (or do not engage) in this reflection process in their own work with infants.

My research will also explore the meaning of quality education and care within the context of teachers' images of infants as active or passive participants in the classroom. Using a critical ethnography framework, I will be advocating for the value of viewing infants as active participants in the classroom, deserving of nurturing care and child-directed, teacher guided learning. As I discussed in my rationale, there is currently a significant lack of research devoted to defining quality, child-centred infant education. I would like to use my research to help bridge this information gap, by sharing infant educators' professional philosophies and experiences, and advocating for an educational approach that helps to empower infants as active learners. There are some centres (like one I worked at for 10 years) where educators practice and advocate for emergent curriculum (which holds a core belief that children are capable, active learners from birth) but relatively few who do so with infants specifically. The numbers who do seem to be slowly growing, but the value of understanding and practicing emergent curriculum with children under two years of age is still not widely accepted or represented in the research and resources relevant to this profession.

Literature Review

This section will examine several topics related to the research question, and has been divided into the following sections. The first section will explore the concept that each infant educator holds a unique view or image of what infants are like and what they need from adults to grow and learn to their full potential. The second section will discuss the meaning of quality education and care for infants and their educators. The third section will explore the educational philosophies and frameworks that support and empower infants as active participants in the classroom. It has been divided into sub sections for clarity and organisation. The fourth section will examine the role of the learning environment in empowering children and adults. The final two sections will give an overview of the research on brain development and attachment in the first two years of life, and what these findings mean for infants and educators.

Image of the Infant

The phrase "Image of the Child" (Malaguzzi, 1993, p. 1) originated in Reggio Emilia,

Italy, and is a central concept to this city's world-renowned early childhood education philosophies and practices. Reggio Emilia's philosophies have inspired many similar approaches worldwide, including in North America, which will be discussed in a later section of this review.

An educator's image of the child relates to the ways he or she think of or views children, both individually and within groups. This image is influenced by the adult's own lived experience from his or her childhood onward, as well as the culture or cultures he or she identifies with (Rinaldi, 2001, p. 50). As such, each adult has their own unique image of the child. The founder of the Reggio approach, Loris Malaguzzi (1993), believed that:

> There are hundreds of different images of the child. Each one of you has inside yourself an image of the child that directs you as you begin to relate to a child…it orients you as you talk to the child, listen to the child, observe the child. It is very difficult for you to act contrary to this internal image. (p. 1)

An educator's style of teaching and of building relationships with young children is closely connected to his or her image of the child, and is "…reflected in the expectation that we have when we look at a child" (Rinaldi, 2001, p. 50). Because each adult's image is subjective, based on their own experiences, they may have either "positive or negative expectations, and construct a context that values or limits the qualities and potential that…[they] attribute to children" (Rinaldi, 2001, p. 50).

In Reggio Emilia, teachers "see the child as a natural collaborator always ready and excited to engage in social interactions and establish relationships" (McNally & Slutsky, 2017, p. 3) and as able to "generate ideas and theories that are important to examine" (McNally & Slutsky, 2017, p. 3). These educators believe that:

> All children have preparedness, potential, curiosity; they have interest in relationship, in constructing their own learning, and in negotiating with everything the environment brings to them. Children should be considered as active citizens with rights, as contributing members, with their families, of their local community. (Gandini, Etheridge,

& Hill, 2003, p. 1)

A teacher's own practice can be deeply affected by the image they hold of children. In Reggio Emilia, "A strong image of the child has to correspond to a strong image of the teacher. Teachers are not considered protective babysitters, teaching basic skills to children but, rather, they are seen as learners along with the children" (Gandini, Etheridge, & Hill, 2003, p. 1). According to McNally and Slutsky (2017), the educator in Reggio Emily is seen as a "protagonist" (p. 5), just as children are. These authors explain that "The teacher actively participates in the educational experience by creating and disseminating knowledge in partnership with children and colleagues. The teacher is an advocate, collaborator, researcher and facilitator" (McNally & Slutsky, 2017, p. 5). The educators' strong image of the child seems to lead them to also hold a strong, capable image of the educator who partners with and supports young children, rather than trying to control or dominate them.

In North America, in contrast to Italy, adults are more likely to view children "from a much more protective and possibly restricted vantage…we often discuss 'meeting children's needs' and 'strengthening their weaknesses'" (Hendrick, 2004, p. 40). In my own practice with children from three months to five years, I have encountered similar attitudes among many adults, including some educators. There seems to be a widespread belief in North American society that young children should be taught according to the adult's schedule and plans, rather than based on the child's own interests, abilities, and inquiries. Children are often seen as passive recipients of knowledge, and as dependent on the adult to be told what to think and feel. There is an idea that children are born as "blank slates" (Lally, 2009, p. 70) and are "devoid of a learning agenda of their own" (Lally, 2009, p. 70). It has been my experience that the younger children are the more prevalent this belief is in relation to them. Infant educators are largely viewed simply as basic caregivers who change diapers, feed babies, put them to sleep, and keep them safe and happy while their parents are at work. Their role is oversimplified and seen by many as a job not requiring specialized training or skills of any kind. As Australian researchers Redman, Harrison, and Djonov (2021) state "The notion of caring for young children as a job

that ‘anyone can do’ has contributed to the low status afforded infant and toddler educators” (p. 4). Few people seem to think about what it means for infants to be safe, happy, and well cared for on a deeper level. I have been told many times by people outside (and occasionally inside) my profession that I am not a teacher, because infants are too young to require an education. They seem to believe in the “traditional discourse of infants and toddlers being cared for whilst ‘waiting to learn’” (Redman, Harrison, & Dionov, 2021, p. 4). However, when people say this, they do not understand the full meaning that education can have and that “learning begins from birth, with high-quality experiences and interactions” (Redman, Harrison, & Donov, 2021, p. 4). I did not always see this truth either. It was not until I began working with infants myself that I realized how capable they are of exploring, discovering, asking questions, developing and testing theories, communicating, and seeking connections with others. They may not be able to communicate their ideas verbally, but can do so in so many other ways, if only adults can find a way to understand and appreciate them and scaffold their inquiries. This is what education should mean for infants and their teachers.

A study conducted by Cynthia Lim (2019) into Singaporean educators’ image of the infant and their role in supporting infants’ learning and development found that participating educators who held an “image of the infant child to be that of an active and curious inquirer, who was physically and cognitively competent…described their practice in ways that supported the physical, socioemotional, and cognitive development of the child” (p. 15). These educators “tended to see their role to include educating the infants (on top of providing physical care)” (Lim, 2019, p. 15). Conversely, this study suggested that infant educators who:

> viewed the infants as noncapable babies tended to focus their efforts on the physical care of the infants and appeared to have a narrower view of infant learning largely confined to achieving physical milestones…[and were] more focused on the custodial care of infants. (Lim, 2019, p. 15)

Lim’s (2019) results also suggest that when infant educators experience opportunities to reflect on their practice and their role in supporting infants, this may help them develop a stronger, more

capable image of the infant. She explains that "The act of reviewing their thinking…could be the first step towards engaging in the reflective process resulting in a possible shift in…[educators'] perspectives in time to come" (Lim, 2019, p. 16).

My own image of the infant involves a child "who experiences the world, who feels a part of the world right from birth…a child who is full of desire to and ability to communicate from the start of his or her life" (Rinaldi, 2001, p. 50-51). I view infants as intelligent, competent, ready and eager to learn from and with adults, peers, and their environment, and to share their discoveries, joys, and challenges with others. I see them as being empowered by adults who value and respect their desire to learn and create, and as thriving on the process of building relationships based on mutual trust and respect. I agree with Malaguzzi (1993), that "Those who have the image of the child as fragile, incomplete…gain something from this belief only for themselves….Instead of always giving children protection, we need to give them the recognition of their rights and of their strength" (p. 5).

Quality in Infant Education and Care

This section will explore the unique meaning of the word quality in relation to infant education, as opposed to that of older children. Brownlee, Berthelsen, & Segaran (2009) state that "Quality is conceptualised as features of the child's experiences within programs that are presumed to be beneficial to their well-being and thus their learning and development" (p. 3). These authors also point out that "How quality infant care programs are provided is open to many interpretations across social and cultural contexts" (Brownlee, Berthelsen, & Segaran, 2009, p. 4).

Brownlee, Berthelsen, & Segaran (2009) interviewed early childhood educators and child care centre directors about their views on what constitutes quality infant education and care. The authors found that both "Childcare workers and centre directors thought that quality care in infant programs was related predominantly to supporting infants emotionally" (Brownlee, Berthelsen, & Segaran, 2009, p. 9). Though some participants discussed the importance of program as well as care in supporting infants' development, their answers did not generally

reflect that they placed the same strong values on education that they did on loving care (Brownlee, Berthelsen, & Segaran, 2009). The authors related this result to apparent societal values on this topic, noting that "These more publicly held images of quality infant care do not support a conception of quality that focuses on education as well as care" (Brownlee, Berthelsen, & Segaran, 2009, p. 17). Although these findings come from Australia, my experience in the early childhood field in Nova Scotia, Canada, has shown me that this practice of valuing physical and emotional care over education that empowers infants as active learners and explorers is quite common here as well. This approach unfortunately misses the whole picture in terms of what infants need and deserve in their child care experience. As Lally and Mangione (2006) point out, "Loving care is an important base for learning but only half of what is needed" (p. 4). Brownlee, Berthelsen, and Segaran (2009) assert that "…quality practice in infant care is underpinned by critically reflective practitioners who are also well informed" (p. 6). They envision an educator who "constructs knowledge in relationships with others and draws on theories from a variety of perspectives….[to ensure that] infants and toddlers are respected for their competence and their participation is encouraged" (Brownlee, Berthelsen, & Segaran, 2009, p. 6).

It is not to say that quality care and attention to infants' physical and emotional needs and rights is less important than education. According to Brownlee, Berthelsen, and Segaran (2009), because infants are often "less able to negotiate the physical and social environment… [they are] more dependent on the adults in their care environment…they are more vulnerable to negative effects of poor quality care" (p. 5). It seems that perhaps true quality in infant education and care involves a balance of the two, where they co-exist in harmony, according to the needs and desires of each child. Carol Garboden Murray (2021) argues that responsive care and education cannot be separated from another in quality early childhood programs. She states that often "responsive care is neglected as an intentional teaching practice" (Garboden Murray, 2021, p. 9-10). She defines responsive care as "the process of tuning in to young children and responding in a respectful, sensitive way" (Garboden Murray, 2021, p. 15) and explains that:

Responsive care leads to secure attachment which affords children a host of positive

> outcomes. Children who have experienced responsive care learn to trust…children who learn to trust have a greater sense of independence as well as stronger language, cognitive, and social skills. Within the model of responsive care, we see individuals working with infants, toddlers, and young children as teachers. Responsive care is a perfect demonstration of the inseparability of learning and care. (Garboden Murray, 2021, p. 15)

A study conducted by Bratsch-Hines, Zgourou, Vernon-Feagans, Carr, & Willoughby (2020), also indicates the importance of meaningful relationships and interactions between infants and educators, stating that "Caregivers who engage in reciprocal, supportive, and adaptive caregiving behaviors help children gain important early language and social skills". The authors argue that "An important feature of child-care quality is children's access to a responsive caregiver with whom children are more likely to engage in back-and-forth interactions" (Bratsch-Hines, Zgourou, Vernon-Feagans, Carr, & Willoughby, 2020) which can support infants' learning and development in many ways. Responsive and mutually respectful relationships between educators and children should be evident throughout the classroom environment and the events that happen there. Helping an infant fall asleep at nap time or changing their diaper, setting up a provocation based on observations of the children and their interests, and engaging with the children while they feed themselves or lead their own play are all times when teachers can build mutual trust and understanding between themselves and the children. Care and education are not opposite or conflicting goals for infant educators. Children learn through every experience they share with their educators, during care routines and play, and responsive relationships teach infants that they are cared for while they learn. It is when educators focus only on meeting the most basic custodial care needs of infants without engaging in more meaningful responsive caregiving that they miss out on opportunities to support infants' learning and development. Lim (2019) also discusses this important point, explaining that:

> Functions of care and education represented by responsive caregiving and quality early

> opportunities for learning provided to infants and toddlers are critical to the physical, socioemotional, and cognitive development of very young children…It is important for infant caregivers to conceptualize their roles to include both care and education of infants as this would translate to higher quality of care in their practice. (p. 2-3)

One reason that infant educators may struggle to balance care and educational opportunities in the classroom lies in the fact that babies require a greater degree of physical care than older children. Preschoolers and school age children are generally more capable of feeding and dressing themselves, falling asleep on their own, and engaging in or at least assisting with their own toileting. Therefore, infant teachers may feel that there is not enough time to devote to the children's interests and learning throughout the day. The key seems to involve consciously making an effort to spend time with the children each day exploring and discovering together. Galardini and Giovannini (2001) address this problem, stating:

> Certainly, the routines of arrival, meals, activities, and rest offer familiar support, but if we become inattentive and unreflective, we begin to miss the richness that is inherent in everyday life. When we rely too automatically on familiar actions, the running of the center becomes too much like domestic management. (p. 94)

Educators who remain mindful and reflective about the importance of valuing learning opportunities as well as care will be better able to support and scaffold infants' interests. This is an ongoing process, but a crucial one for teachers who understand that "Rather than adhering rigidly to particular processes, teachers…need to…[be] flexible and view the relationships (not the routines) as the primary issue" (Millikan, 2009, p. 90). Garboden Murray (2021) addresses the ways educators can draw on the pedagogy of care to recognize the deeper learning that can occur when educators focus on responsive relationships in every part of their day with young children. She poses the question "What would our practice look like if we lifted up the daily chores of caring as honourable rituals and essential educational practices?" (Garboden Murray, 2021, p. 18). She argues that "In routines such as washing and dressing, feeding and comforting, we transform daily rituals through care relationships into opportunities for teaching and learning.

The child is learning every moment and learning the deepest lessons through the caring exchange" (Garboden Murray, 2021, p. 18). Similarly, Bussey and Hill (2017) discuss the concept of "care as curriculum" (p. 2) and argue that for care interactions to support infants' learning, they need to be intentional:

> "…the word curriculum does not apply to just any approach to…[diaper] changing, dressing or feeding, which could involve disinterested care; rather that the care given is respectful, reciprocal, and responsive. Hence care as curriculum refers to a consciously considered approach, for example, turning every day routines into curriculum (p. 5).

Alternatively, when an emphasis is placed on education in infant classrooms, it is sometimes implemented in a way that is not beneficial for these young children, who are wired to learn in unique ways. As Shin and Partyka (2017) assert, "infant curriculum planning should be open to unique experiences and refrain from implementing strictly preset activities" (p. 14). McNally and Slutsky (2017) discuss the push for early academics in childcare and the way this contradicts the current research findings regarding young children's learning needs:

> Quality has become synonymous with predetermined outcomes emphasizing academic skills. There is little flexibility in what it means to be successful even though decades of early childhood research tells us that children who are supported in their social development in the early years are more successful as adults. (p. 10)

Lally and Mangione (2006) also explore this topic, describing the belief held by many adults that "for infants to grow and develop cognitively they must be stimulated intellectually by adult-developed and -directed lessons and activities, carefully preplanned and then programmed into an infant's day." (p. 4). When infant learning is viewed in this way, infants are seen as "passive and the object of adults' decisions and actions" (Cheeseman, 2017, p. 2). In reality, infants are constantly learning from their surroundings and the people in them through all their senses (Lally & Mangione, 2006). They are "thinkers and theorisers" (Cheeseman, 2017, p. 11) who deserve "the opportunity to take the lead" (Cheeseman, 2017, p. 11) in their own explorations and discoveries. Through this active exploration, they "pick up from their actions, interactions, and

observations all kinds of information through which they build knowledge and skills in all areas of development" (Lally & Mangione, 2006, p. 2). Teachers' approaches to supporting and scaffolding infants' learning should strive to "…create a social, emotional, and intellectual climate that supports child-initiated learning and imitation and builds and sustains positive relationships among adults and children" (Lally & Mangione, 2006, p. 5). According to Cheeseman (2017), reflecting on infants' capacities as active learners can have the benefit of: "Inviting a shift from images of infants as having needs to images of infants as initiators and agents of their own learning" (p.10). She explains that this shift can support infant educators in developing "a more expansive view of infants as learners" (Cheeseman, 2017, p. 10), and that when educators begin to understand "the wisdom and expertise of the infant… [they] trust infants to share to demonstrate their agency, desires and intents for learning" (p. 10).

Lally and Mangione (2006) discuss another significant way infant learning can differ from that of older children. They argue that,

> In contrast to preschoolers and school-age children, infants are developing a first sense of self during their first two years. How they are treated and what they are allowed and expected to do and not to do are incorporated into the infant's developing self. (Lally & Mangione, 2006, p. 4)

It seems that, while the adults around them are developing their image of the infant from their interactions with these young children, infants are also creating their own self-image that is highly susceptible to the influence of relationships and interactions with caregivers and teachers. Shin and Partyka (2017) also discuss this developing sense of self, stating that

> Young children develop a sense of self-awareness as they learn more about what they like or dislike and with whom they want to share their play space...This decision-making process enables young children to develop a sense of self-esteem and empowerment. (p. 3)

As such, infant educators seem to have the power to impact infants' development of this crucial aspect of their psyche: "Creating a warm, caring, subjective relationship with the infant is more than nice; it significantly contributes to a child's positive sense of self" (Lally & Mangione,

2006, p. 4). Gilken, Longley, and Crosby (2021) discuss the power of relationships in supporting infants' learning about themselves and others, explaining that "the cornerstone of the infant–toddler curriculum is responsive, relationship-based programming, which is considered best practice when working with infants in group settings. Relationship-based practices are multifaceted processes that involve respect, responsiveness, and reciprocity" (p. 2).

Educational Philosophies

The following philosophical frameworks are relationship-based, strengths-based approaches that view infants as competent, active participants, who from birth strive to build connections with the people around them, as well as their environment. They focus on infants' abilities, rather than their limitations, and emphasize the many ways babies communicate, explore, create, problem solve, and so much more. This section has been divided into two subsections.

Emergent Curriculum

Emergent curriculum is a North American term used to describe an educational approach inspired by the infant-toddler centres and preschools of Reggio Emilia, Italy, which I briefly discussed in the above section "Image of the Infant". Here, I will explore this philosophy in greater depth and detail. Emergent curriculum has adopted many of the core concepts and values of Reggio Emilia, but the actual implementation of this philosophy looks different in every place, with every group of children, teachers, and families. Lella Gandini (2011), a respected advocate of bringing Reggio-inspired philosophy to North America states "I like to say that it is better not to consider the Reggio Emilia approach a model but rather to consider how the dynamic approach developed in Reggio can offer inspiration" (p. 2). She expands on this idea as such,

> Considering the enormous interest that educators show in the work done in the Reggio schools, they suggest that teachers and parents in each school, any school, anywhere, could in their own context reflect on these ideas, keeping in focus always the relationships and learning that are in process locally to examine needs and strengths, thus finding possible ways to construct change. (Gandini, 2003, p. 2)

In Reggio Emilia, education is viewed as a right of every child, from birth, and is "based on

mutual respect, valuing the diversity of identities, competencies, and knowledge held by each individual" (Indications Preschools and Infant-Toddler Centres, 2010, p. 7). Children are seen as "active protagonists of their growth and development processes" (Indications Preschools and Infant-Toddler Centres, 2010, p. 10). Teachers spend time observing, reflecting, and interacting with the children to "…understand each child's resources and potential and present state of mind…to compare these with our own in order to work well together" (Malaguzzi, 1993, p. 3). According to Salmon and Ximena Barrera (2021), Reggio Emilia's educational approach is

> driven by the idea that children are capable of constructing their own learning. Children can build an understanding of themselves and their place in the world through their interactions with others…Both the curriculum and the pedagogy are shaped by the children's curiosity. (p. 5)

Children initiate and direct their own learning, while teachers are there to guide, collaborate, and co-construct knowledge (Hendrick, 2004). Educators offer materials, experiences, and ask questions to support children's explorations, then observe and reflect further to see how the children respond. It is a process that often involves trial and error and collaborative exploration. Gandini (2004) states: "Teachers consider themselves to be partners in this process of learning, which might proceed with pauses and setbacks but is an experience constructed and enjoyed together with the children" (p. 21). Nxumalo, Vintimilla, and Nelson (2018) also discuss this partnership between educators and children, stating that "the role of the educator is to listen, observe, and document children's ideas, explorations, and interests as a way to respond to them and co-create meaningful, open-ended, in-depth and sustained learning experiences" (p. 3).

Jones (2012) explains that emergent curriculum, inspired by Reggio Emilia and founded on the importance of adults and children developing relationships of mutual trust and respect,

> emerges from the play of children and the play of teachers. It is co-constructed by the children and the adults and the environment itself. To develop curriculum in depth, adults must notice children's questions and invent ways to extend them, document what happens, and invent more questions. The process is naturally individualized. (p. 2)

Sunday and Conley (2020) explore the ways emergent curriculum can support and empower children as active learners in the early childhood environment:

> An emergent curriculum is a relationship between the dynamic and unpredictable nature of children's learning and the world around them. It…seeks to build linkages between children's working theories and the skills, strategies, attitudes, and expectations that they bring to learning processes. (p. 4)

As such, Emergent curriculum "stands in contrast to, and is an important site of resistance to standardized and theme-based curriculum in early childhood education, including increasingly regimented modes of governing what children can do and learn in the classroom" (Nxumalo, Vintimilla, & Nelson, 2018, p. 3). However, Sunday and Conley (2020) assert that although "emergent curriculum is not preplanned…it also not unplanned. Rather, emergent curriculum responds to/with the classroom and community" (p. 4). Emergent curriculum is an ever-changing, continuously evolving approach that supports and scaffolds each child and group of children based on their own unique ideas, interests, and needs.

In North America, more studies regarding the benefits of Emergent curriculum for children, educators, and families is slowly emerging, however more research is needed to shed light on the ways this approach can support children of all ages and their educators. In particular, there is relatively little information and few resources available to infant educators in relation to what Emergent curriculum can look like with this age group, and how this approach can empower children under two as active participants and decision makers. In North America, "Infant-toddler child care programs often look like either watered-down versions of preschool or a glorified version of babysitting" (Lally, 2009, p. 72). Some studies are beginning to emerge that advocate for the "critical role of play in infants' learning and development…through which the infant teacher…[supports] infants' various learning experiences through play, using both planned and spontaneous, emergent activities" (Shin & Partyka, 2017, p. 7). However, more research is very much needed on this topic.

Resources for Infant Educarers (RIE)

RIE is an approach to infant caregiving developed by Magda Gerber, beginning in 1978, to "promote the philosophy of respectful interaction with infants" (Petrie, 2005, p. 27). Hammond (2021) explains how Gerber "changed the landscape in the field of early care and education…Whereas education approaches at the time were generally focused on the needs of older children, Gerber's heart lay with the pre-verbal child…and the adults who care for them" (p.2). Her experience working with young children as an educator and child therapist in her native country of Hungary, and later in the United States, inspired her to embark on this journey (Petrie, 2005, p. 25). RIE was created as a non-profit organization to provide training and guidance to parents and other caregivers of infants (Petrie, 2005, p. 27).

One of the main tenets of the RIE philosophy is that babies deserve adults' respect from birth. As Gerber (2005) says, "Respecting a child means treating even the youngest infant as a unique human being, not as an object" (p. 37). One of the most fundamental ways RIE practitioners show this respect for infants is by communicating with them. Parents and educators who follow the RIE approach do not just do things to babies without explanation, like pick them up or change their diaper. They talk to them about what they are going to do, before, during and after doing so. Gerber (2005) explains,

> To talk to your baby from the first hour of her life is not only pleasant and soothing to the baby, it is a relief for the parent to say how she or he feels and what he or she wants. It is also the beginning of a lifetime of communication. (p. 37)

As they are able, infants are also encouraged to communicate with adults as much as possible. The adult is respectful of the infant's right and need to communicate by "asking them questions, giving them time to respond, and always acknowledging their communication" (Lansbury, 2014, Introduction, para. 18), whether it be verbal or non-verbal.

This approach to promoting reciprocal communication through respectful infant-adult relationships is shared by emergent curriculum and the infant-toddler centres of Reggio Emilia

(Petrie, 2005, p. 30). In Reggio Emilia, "It is the responsibility of the infant-toddler centre…to give value and equal dignity to all the verbal and non-verbal languages" (Indications Preschools and Infant-Toddler Centres, 2010, p. 10). The educators speak of children having "one hundred languages" (Malaguzzi, 2012, p. 3). These languages consist of all the different ways children, from birth, communicate their thoughts, feelings, ideas, likes, dislikes, and so on. Words are only one way children do so. Bondavalli, an infant teacher in Reggio Emilia (2001) argues that:

> We, as adults, should be able to understand the desires, readiness, and capacity of these very young children to enter a relationship with others even when verbal declarations are not made. Their gestures, their look, the solidarity, and the collaboration that emerges among children communicate this to us. (p. 62)

By doing so, Bondavalli (2001) writes: "This adult will be able to witness this great capacity and potential that children have even when they are very young" (p. 63). Infants can communicate with adults in so many ways, and as such can help adults shape and evolve their image of the infant from dependent and passive, to an active, engaged child who "…knows and is able to do, who knows and is able to discover, suggest, involve, whenever the adult is also able to listen, see, suggest, relaunch, provoke, wonder, make hypotheses, and relate" (Edwards & Rinaldi, 2009, p. 62).

Another way RIE practitioners respect infants is by giving them the time and freedom to explore and interact with their environment and the people within it at their own pace (Gerber, 2005, p. 37). Young babies are given ample time to lay on their backs, often on a blanket on the floor, take in their surroundings and explore nearby materials and objects that the caregiver has deemed safe for them to touch, mouth, and so on (Lansbury, 2014). As they grow and become more mobile, infants are allowed and encouraged to further investigate the things and people around them. The adult ensures the space is safe and free of hazards for the infant, creating "an environment in which the child can do all the things that the child would naturally do" (Gerber,

2005, p. 37). Of course, the adult is still very present and involved with the child, engaging in positive, nurturing conversations and interactions. As Gerber (2005) states, "The RIE approach aims to achieve a balance between adult stimulation and independent exploration by the infant" (p. 37). Parents and infant educators need not interfere with babies' play or try to direct it according to what the adult thinks the child should be learning or experiencing (Gerber, 2005, p. 38). Instead, Gerber (2005) explains,

> We have a basic trust in the infant to be an initiator, an explorer eager to learn what he is ready for. We provide an environment for the infant that is physically safe, cognitively challenging, and emotionally nurturing. We give her plenty of time for uninterrupted play. We do not teach her how to move or how to play, but rather observe her carefully to understand her communications and her needs. (p. 39)

When engaged with the infant in diaper changing, for example, adults encourage children to participate by lifting their legs or arms as needed, explaining what they are doing with the child and why (Lansbury, 2014). They involve babies in their own care routines. Such practices "encourage even the tiniest infant to become an active participant rather than a passive recipient of the activities" (Gerber, 2005, p, 39). Although young babies may not be able to participate in these tasks in the same ways as older infants, the simple act of discussing with them what is happening and inviting them to take part is a way of laying the groundwork for respectful communication and relationships from the very beginning, which "nurtures…[the] parent-child relationship" (Lansbury, 2014, Introduction, para. 19). Hammond (2021) discusses the way adults' interactions with infants are influenced by their image of the infant during diaper changes and other care routines, stating that if adults believe:

> that the baby is capable of participating in the activity, and invites him to cooperate, the care will proceed slowly and be rich with reciprocal communication as they work together to be understood. If, however, the adult thinks of the baby as oblivious and incapable of cooperation, expecting him to be passive and compliant, the task may be

quickly accomplished but the joy of togetherness will be missing. (p. 6)

The autonomy given to infants through free play and giving them time to respond to our interactions also allow adults to encourage problem-solving and decision making in these young children. By trusting that infants can develop their own questions and theories, educators and caregivers can encourage them to discover the answers to their inquiries and the solutions to challenges they face, in ways that are meaningful to them. When adults jump in too quickly to hand a crawling infant a toy that is out of their reach, for instance, they send the message that the child should depend on the adult to solve their problems for them (Lansbury, 2014). Gerber (2005) suggests that adults "…try to provide just that little amount of help that allows the child to take over again. Let him be the initiator and problem-solver" (Gerber, 2005, p. 41). She continues, saying "We can look at life as a continuation of conflicts or problems. The more often we have mastered a minute difficulty, the more capable we feel the next time" (Gerber, 2005, p. 41). Similarly, Gerber (2005) felt that infants should be given the freedom to reach their physical milestones (crawling, rolling, sitting up, walking, etc.) at their own pace, when they are ready. She believed that contraptions such as walkers, jumpers, and baby swings could interfere with infants' innate abilities to learn physical skills on their own, and thus prove detrimental to the infants' sense of self-worth and autonomy. Again, unnecessary adult interference sends the message to infants that they should view themselves as passive, rather than active, learners.

Gerber's approach to trusting infants to explore and learn at their own pace was, and still is, a "radical shift away from the prevailing notion among parents and childcare providers…of the baby that must be stimulated and enticed to learn by adults, and as completely dependent upon adults for constant stimulation and entertainment" (Hammond, 2021, p. 2). Instead, she "presented an image of the baby as an intelligent, capable, feeling person with as much right to respect as a revered elder. She offered to adults concrete ways of caring that were designed to give the baby a felt sense of respect" (Hammond, 2021, p. 2).

Behavioural guidance with infants follows this same respectful approach. RIE

philosophy views respectful, reciprocal relationships as crucial to all interactions between the infant and adult (Gerber, 2005). Caregivers and educators respect the infant's needs and desires, but they also help the infant to learn to respect those of the adult, and others (Lansbury, 2014). By striving to remain calm, acknowledge children's emotions, explain boundaries in clear, simple terms, and respond consistently in this manner each time, adults can be a "gentle leader that guides, models, demonstrates, coaches, and *helps* our children to behave appropriately" (Lansbury, 2014, Toddler Discipline That Works section, para. 11). Children "need to be able to complain, resist, stomp their feet, cry, and express their darker feelings with the assurance that they have our acceptance and acknowledgment" (Lansbury, 2014, Toddler Discipline That Works section, para. 17). As Hammond (2021) explains,

> Gerber leads us to see that when adults allow all the children's emotions to be expressed, even when their behaviours must be inhibited, children come to understand their own authentic feelings and desires as well as those of the others, and over time adjust their behaviour accordingly. (p. 10)

Adults need to stay calm and realize that infants do not misbehave or test boundaries because they "desire to drive the adult crazy" (Gerber, 2005, p. 41), but because they are trying to understand themselves and their emotions, as well as those of others. In learning to see themselves as competent, active learners, they need to figure out how to recognize their limits in relation to their own safety and well-being, and those of others (Lansbury, 2014). RIE does recognize however, that caregivers and educators are human, and may struggle when setting boundaries with children, losing patience and/or second guessing themselves. Lansbury (2014) recommends that adults look at this situation as an opportunity, rather than a failure. She says that when adults talk to children about their own feelings and actions, whether positive or negative, this helps to strengthen the adult-child relationship (Lansbury, 2014). When adults talk with young children in this way, it helps them to understand that grown ups have the same kinds of feelings they do, and that adults make errors in judgement as well. This realization will

further increase the bonds of trust and respect between adults and young children.

Environment As Teacher

In Reggio Emilia, "school settings are well known for their rich environments that foster student learning because they are both aesthetically and intellectually stimulating and also reflect a respect for the rights, interests, and needs of the individuals who use the space" (Robson & Mastrangelo, 2017, p. 4). In both the Reggio Emilia approach and Emergent curriculum, "The learning environment is often viewed as 'the third teacher': it can either enhance learning, optimizing students' potential to respond creatively and meaningfully, or detract from it" (Ontario Ministry of Education, 2016, as quoted in Robson and Mastrangelo, 2017, p. 4). Within both of these frameworks, the classroom environment is referred to as a "third teacher" (Robson & Mastrangelo, 2017, p. 4) because it is recognized as an educator of children in its own right, along with adults and other children. (Biermeier, 2015; Robson & Mastrangelo, 2017, p. 2). It is viewed as being:

> "…flexible…responsive to the need for teachers and children to create learning together…it is an environment that reflects the values we want to communicate to children. Moreover, the classroom environment can help shape a child's identity as a powerful player in his or her own life and the lives of others. (Biermeier, 2015, p. 1).

Robson and Mastrangelo (2017) discuss ways the environment can promote children's active exploration and opportunities for decision making, explaining that "active learning can be achieved by providing a rich, stimulating environment that offers many choices and provokes children to discover a variety of materials while actively exploring, investigating, and solving problems (p. 5). Although much of the research available on the benefits of environment as teacher relates to preschool and school aged children, infants deserve and thrive in such empowering spaces as well. As Gilken, Longley, and Crosby (2021) explain, "Having safe, healthy classrooms is important for infants, toddlers, and families. Children should be able to engage with their environment freely, without restrictions. These environments should…provide

opportunities to explore and interact with materials" (p. 2).

According to Tarr (2014), the process of designing the classroom environment "must begin with a personal examination of your image of the child and an image of the child held by the social and cultural context surrounding your classroom" (p. 44). Striving to represent their own image of the child and the socio-cultural context of themselves and the children and families in the early childhood environment, can help educators "create inviting spaces that encourage people to stay and engage" (McNally & Slutsky, 2017, p. 4).

The concept of a flexible environment involves the understanding that "The arrangement of structures, objects, and activities – often readjusted – encourages choices, problem solving, and discoveries in the process of learning" (Gandini, 2004, p. 17). Thus, the materials, design, and flow of the classroom should be continuously evolving to meet the needs and interests of the children and teachers. According to Gandini (2003): "This is a place where adults have thought about the quality and the instructive power of space. The layout of physical space fosters encounters, communication, and relationships" (p. 1). The environment is also more than just the physical space itself. It embodies the ability of children and teachers to "create culture" (Rinaldi, 2001, p. 53) through their interactions and relationships. It is a "relational space—an environment rich in relationships, communication, co-operation, and co-exploration" (McChesney & Clarkin-Phillips, 2020, p. 3). Edwards and Gandini (2009) refer to the environment as a "network of relationships as well as a structural environment" (p. 63). Galardini and Giovannini (2001), discuss the notion of a:

> Generous environment…in which the generosity derives not only from richness and variety of materials provided but also from teachers' attitudes, implicit in the care with which materials have been sought out, selected, and offered to the children. It is a generosity of attitude characterized by attentions and listening by adults who know how to observe, offer things, and pace their offerings at the right moment. In this way, teachers sustain children's attention and involvement, reanimate their interest when

necessary, and value what they do. (p. 93-94).

Although physical aspects of the classroom do communicate many messages to and about the children and their teachers (e.g., how children are represented and valued by adults), Gandini (2004) points out that the classroom's "beauty does not come from expensive furnishings but rather from the message the whole school conveys about children and teachers engaged together in the pleasure of learning" (p. 17).

Materials are an important part of the environment, and like all other aspects of the classroom their selection and presentation to the children requires observation and reflection on the part of the educator. Materials are another way that teachers can explore and support children's interests, and they speak to educators' image of the infant. Kuh and Rivard (2014) note that "When teachers make choices about what to put in their classrooms, their selections represent more than just the objects themselves – they tell a story about what is important to teachers about learning and their beliefs about children" (p. 12). Open-ended materials that young children can use in many different ways are best for supporting their explorations, as opposed to "Closed-ended [materials], or materials requiring specific use…[that leave]…little room for imagination and originality" (Gull, Bogunovich, Levenson Goldstein, & Rosengarten, 2019, p. 12). By observing the way infants engage with specific objects, teachers can learn about these children's inquiries, theories, and discoveries. Materials, for infants, become a form of communication in this way. Gandini (2001) expresses this idea, arguing that:

> Materials are truly important when they become a language that is owned by the children and not just a technique that has to be learned or used in only one way. Materials should become languages to give voice to children's thoughts, mental images and sense of possibility about entering into relationships with the other children. Through materials, children have a chance to collaborate, cooperate, and exchange knowledge with each other (p. 64).

Simon Nicholson (1971) developed a theory that supports these ideas and is becoming more

accepted and celebrated in the early childhood field. It is known as the "Theory of Loose Parts" (Nicholson, 1971, p. 3), and states that "In any environment, both the degree of inventiveness and creativity, and the possibility of discovery, are directly proportional to the number and kind of variables in it" (Nicholson, 1971, p. 3). Loose parts are any open ended "Objects [that] can encourage children to experiment actively, make connections, and act on their own thoughts" (Galardini & Giovannini, 2001, p. 92). They often consist of inexpensive, every day items, such as rocks, sticks, shells and other natural materials, and common household items such as fabric scraps, containers, lids, and cardboard tubes. When young children are allowed time and freedom to explore these items as they wish, these materials promote creativity, problem solving, and many other skills. Daly and Beloglovsky (2016) assert that:

> Young children's problem solving skills are enhanced by loose parts because exploration is how children build knowledge of the objects in the world around them. When we introduce multiple loose parts that can be moved, manipulated, and made into different things diverse meanings, children develop higher levels of critical thinking. (p. 8)

Nicholson (1971) believed that "Children learn most readily and easily in a laboratory-type environment where they can experiment, enjoy and find out things for themselves" (p. 4). Providing a variety of safe loose parts, sometimes referred to as "object play" (Herzberg, Fletcher, Schatz, Adolph, & Tamis-LeMonda, 2022, p. 1) for infants is one of the ways teachers can empower them as active learners, as "environments abound with objects. And object play is vital for infant learning" (Herzberg, Fletcher, Schatz, Adolph, & Tamis-LeMonda, 2022, p. 1). Loose parts are easily accessible for educators and provide many valuable active child-led learning opportunities. Daly and Beloglovsky (2016) address the benefits of loose parts for infants:

> Infants…are researchers who are fascinated by the properties of objects and how things work. They explore materials with all of their senses and delight in cause-and-effect relationships. Loose parts are captivating objects for infants…to investigate because of

> their open-ended nature. Loose parts allow young children to be in control of their inquiries as they gather and learn information about physical objects. (p. 1)

Another way that children's voices can be represented in the classroom is through an environment that is "full of the children's own work" (Gandini, 2004, p. 17). This can include, but is not limited to, displays of their work, such paintings, drawings, and three-dimensional creations (clay, play dough, block structures, etc.) as well as photos of the children and documentation of their interests, explorations, and discoveries. Educators can demonstrate respect for the children by thinking about the placement of their work and documentation in the classroom. For example, documentation meant primarily for parents may be placed at an adult's eye level, but documentation meant for the children to view should be placed at their eye level (Kuh & Rivard, 2014, p. 20). Making documentation of infants' work visible and easily accessible to them will help reinforce their feelings of self-worth and allow them to revisit their previous and ongoing explorations through photos of them and samples of their work (Kuh & Rivard, 2014, p. 20).

Brain Development

This section will provide a brief overview of the current research on brain development in the first two years of life, and how educators can use this knowledge to best support infants as active learners. During infancy and young childhood, a process known as "synaptic pruning" (Sakai, 2017, p. 1) occurs in the brain. This is a process by which neural pathways in the brain are created and strengthened or weakened according to infants' experiences with their caregivers and environment (Sakai, 2017, p. 1). The National Association for the Education of Young Children (2020) states that:

> Neural connections in the brain - which are the basis for all thought, communication, and learning - are established most rapidly in early childhood. The processes of forming new neural connections and pruning the neural connections that are not used continue throughout a person's lifespan but are most consequential in the first three years.

According to Edie and Schmid (2007), "Only those connections and pathways that are activated

frequently are retained. Other connections that are not consistently used will be pruned or discarded so the active connections can become stronger" (p. 1). Edie and Schmid (2007) go on to say that "To develop the higher areas of the brain, children must be able to experience things for themselves and feel the sense of accomplishment that goes along with completing tasks independently" (p. 2). Hammond (2021) explains that "Though many people disregard the infant's experience, thinking the baby will never remember, it is now widely accepted…that early, nonconscious (implicit) memories from the first 2 years of life are stored in the nervous system, particularly the stress response systems, rather than as explicitly accessible episodic recollections" (p. 6). In other words, infants' early experiences with their caregivers and environments have significant impacts on them as they grow, whether or not they remember those experiences consciously. Lally and Mangione (2017) also address this concept, explaining:

> When those experiences are primarily positive, children perceive the behaviors and messages of others in positive ways and are motivated to explore more and more of the world (including people and things). When babies have repeated adverse early experiences, they come to expect the behaviors and messages of others to be negative, and they start to perceive new experiences with others in a negative way. (p. 2)

With this in mind, positive experiences and nurturing relationships that respect and encourage infants' rights to actively explore and discover according to their own interests and at their own pace are both vital and extremely beneficial to infants' brain development. According to the National Association for the Education of Young Children (2020),

> When adults are sensitive and respond to an infant's babble, cry, or gesture, they directly support the development of neural connections that lay the foundation for children's communication and social skills, including self-regulation. These 'serve and return' interactions shape the brain's architecture. They also help educators and others 'tune in' to the infant and better respond to the infant's wants and needs.

Edie and Schmid (2007) also address the role of early childhood educators and programs in

influencing young children's brain development:

> Early learning programs that are appropriate for a child's developmental level provide opportunities to learn through play and hands-on exploration. Through this type of learning, children test new knowledge in a relaxed setting and then naturally relate it to existing knowledge and store the new information… Experts believe that when rote-learning tasks are used extensively in an early childhood classroom or other setting, normal growth and development of the brain can become distorted. (p. 2)

The available research on early brain development seems to support the positive effects of child-centred care and education approaches for infants, such as emergent curriculum and RIE. While research also indicates that genetics can also impact brain development (Sakai, 2017; Edie & Schmid, 2007), for the purposes of my research, I will be looking solely at the impact of experiences and environment, as infant educators are able to influence these, whereas they have no control over the genetic makeup of infants.

Developmental psychologist Dr. Alison Gopnik has conducted a wealth of research into infant brain development and learning that also supports the ideas discussed above. Her research has led her to believe that:

> Human infants and children are remarkably effective learners. In a very short time, they learn about objects, people, animals and plants creating intuitive theories of the physics, biology and psychology of the world around them. They do this well before they go to school, with no explicit teaching. (Gopnik, 2020, p. 4)

She challenges her readers to "Find any child between one and two, and simply watch her play with her toys for half an hour. Then count up the number of experiments you see – any child will put the most productive scientist to shame" (Gopnik, 2009, p. 91). One of the experiments she describes to support this involved three month old infants who at some times had a mobile attached to their leg by a string, and at other times did not. When the mobile was attached to their legs, the babies were able to move it by moving their limb. Otherwise, they had no control over the mobile's movement. The researchers found that:

> Babies prefer to look at the mobile that they can influence themselves…they smile and coo at it more…This suggests that it isn't just that they like the effect – they are really trying to make the effect happen and to see the consequences. They are happy because the experiment succeeds. (Gopnik, 2009, p. 87)

Gopnik (2009) continues to describe how these infants would experiment with their ability to move the mobile by moving their other leg and their arms as well, one at a time, seeming to observe with interest the effect each limb had (or did not have) on the mobile's movement. When these babies were removed from the crib for a short time and then placed back into it, they began to move the correct leg once again to shake the mobile it was attached to. Gopnik (2009) asserts that "These explorations really do seem to be experiments. They are actions designed to find out about how the world works, rather than just actions designed to bring about particular events" (p. 88).

Another experiment discussed by Gopnik (2009) involved older infants sitting at a table where a toy was just out of their reach. Within their reach was a small rake. Children as young as 18 months were able to figure out that they could use the rake to retrieve the toy, and to problem solve effectively in order to accomplish this task (Gopnik, 2009, p. 24-25). Gopnik concludes that "They seemed able to mentally anticipate – to imagine – all the possible ways the rake could affect the toy and then chose just the right possibility" (Gopnik, 2009, p. 25). In still another study, 18 month olds observed the experimenter trying to take apart a two part toy dumbbell and not succeeding, eventually give up (Gopnik, 2009). When these children were given the toy they right away set to taking it apart and were able to accomplish this task. Gopnik (2009) points out that infants learn not only from what they see adults do well, but also from what they see adults struggle with. She says, "These babies go beyond simply imitating the other person. Instead they recognize the complex causal relationships among human goals, actions, and outcomes" (p. 95). Infants' interest in experimentation and problem solving demonstrates their innate desire to impact their environment. Gopnik (2009) notes that

> By the time they are a year old babies will systematically vary the actions they perform

> on objects…Rather than just doing the same thing over and over, say banging the block on the table, babies will first bang the block harder and then softer or first bang it and then shake it, carefully observing what happens all the while. (p. 88)

As she also states, "When they play, children actively experiment on the world and they use the results of those experiments to change what they think" (Gopnik, 2009, p. 244). For Gopnik,

> According to Gopnik (2009), "Psychologists and neuroscientists have discovered that babies not only learn more, but imagine more, care more, and experience more than we would ever have thought possible. (Gopnik, 2009, p. 5). Her image of the infant as an active protagonist in their own development seems apparent in the following statement:
>
> Babies love to learn. They learn simply by observing the unfolding statistics of the events around them. They are open to all the richness of the wide world. They pay attention to anything new and unexpected – anything they might learn from – but they also actively do things to learn" (Gopnik, 2009, p. 244).

This image of the infant is key to helping educators unlock infants' potential and support their passion for learning. Research shows that "Babies are perfectly motivated to seek out the skills and relationships that will help them survive and prosper. They have been genetically wired to do so" (Lally & Mangione, 2006, p. 2). Understanding this will help empower infant educators to see themselves playing an integral role in scaffolding infants' learning and "encouraging them to be active participants" (Bussey & Hill, 2017, p. 10). By linking current brain development research to my own research on the ways educators support and empower infants, I want to increase awareness of the benefits of child-centred approaches to infant education and care.

Attachment

Attachment theory was first developed by John Bowlby, who "viewed the infant as an active participant within a relational context" (Weatherston, 2001, p. 10). He defined attachment as each infant's "innate human propensity to seek proximity with a caregiver" (Fry McComish, 2015, p. 1) to meet their physical and emotional needs. Proximity-seeking behaviours include "smiling, vocalising, crying and grasping and as children become older and more mobile,

crawling and then walking" (Hunter, Glazebrook, & Ranger, 2022, p. 2-3). These behaviours are meant to elicit sensitive, nurturing attention and care from the infant's primary attachment figure (usually a parent or guardian) (Petrie, 2005, p. 21). According to Hunter, Glazebrook, & Ranger (2022), "Research suggests that infants of parents who are better able to notice and respond to their infants' states and cues in an adequate and timely way are more likely to develop secure attachment relationships" (p. 3). As they grow, infants are capable of developing strong and beneficial attachments with other sensitive and attentive adults as well, including Early Childhood Educators (Gopnik, 2009, p. 191). To build secure attachment with an infant, adults must fulfill two roles: **"**secure base and safe haven" (Fry McComish, 2015, p. 1). As a secure base, the adult allows and encourages the child to explore their surroundings, comfortable in the knowledge that the adult is present, observing, interacting, enjoying, and delighting in and with the child. An infant who is securely attached to their caregiver also feels comfortable returning to this adult as a safe haven who will offer comfort, reassurance, and love when the child is upset, afraid, has a need, or simply desires closeness and affection. Over time, if these interactions continue,

> the infant will develop an internal working model of the caregiver as consistent and loving and of their self as valued and worthy of care. Thus, an infant's experience of the caregiving environment during the early years is fundamental to the development of positive emotional well-being, emotional regulation skills and good social relationships. (Hunter, Glazebrook, & Ranger, 2022, p. 3)

Thus, the strength of an infant's attachment relationships with his or her caregivers has "powerful implications for the young child's development and consequent interest in the larger social world" (Weatherston, 2001, p. 10).

Attachment theory empowers both the infant and their caregivers by highlighting the "significance of the infant's signals as well as the importance of responsive caregiving to the course of development throughout the life span" (Weatherston, 2001, p. 10). According to Lally and Mangione (2017) "The young brain needs adults to act in ways that honor the child's rights

to desire, hope, explore, and show preferences, while also helping the child learn to honor the similar rights of others" (p. 7). Both the infant and adult are seen as active participants in this relationship, who learn from each other. As such, it is easy to see the ways approaches such as emergent curriculum and RIE help to support secure attachment relationships and healthy brain development in infants. These frameworks seem to hold an image of the infant as a competent and capable being where "Within the context of the trusting relationship that develops between [adult and child]…the baby develops healthy self-confidence" (Weatherston, 2001, p. 10). According to Hammond (2021), "The development of secure primary relationships was central to Gerber's teaching" (p. 5). Gerber believed that "Sensitive observation allows one to see from the child's perspective and take her feelings into account while going about meeting her needs." (Hammond, 2021, p.6). Using different language, RIE philosophy also echoes the concept of the adult as secure base and safe haven: "Only a child who receives undivided attention from his educarer during all routine caregiving activities will be free and interested to explore his environment without needing too much intervention from the educarer" (Gerber, 2005, p. 48).

> In Reggio Emilia,
>
> relationships….[are seen] as the primary connecting dimension of their system… There is focus and attention placed on how relationships work together with learning to help the child realize a sense of worth and develop the confidence to participate in the activities of school" (McNally & Slutsky, 2017, p. 3).

The educators there acknowledge the need for building secure attachment relationships with infants: "The developmental outcomes of secure attachment are emotional regulation (the capacity to feel, express, and control emotions in culturally appropriate ways) and competence motivation (the desire to learn and move forward in development)" (Pope Edwards, 2004, p. 117).

Method

Framework

This study was researched and written as a critical visual ethnography. Creswell

(2012) explains that the framework of critical ethnography is useful for "authors interested in advocating for the emancipation of groups marginalized in our society" (p. 467). This description fits with my research goals, which centre around advocating for infants' right to be respected as active participants in their classrooms and communities, and infant educators' right to be recognized for their valuable and vital role in supporting infants' learning and development. Currently, infants' right to quality education (and what this looks like for this age group) is largely misunderstood and even ignored. I want to use my research to help demonstrate the competence of infants and to explore the ways early childhood educators support the needs, ideas, and abilities of these young humans. By advocating for infants and their educators in this way, I aimed to examine my findings "through the lens of power…privilege, and authority" (Bidabadi, Yazdannik, & Zargham-Boroujeni, 2019) to show that an imbalance of power and authority exists in today's society. This imbalance is reflected in many adults' lack of understanding that infants are capable of autonomy and self-led exploration and that infant educators are not merely babysitters or custodial caregivers. Quality, child-centred care and education is vital to infants' healthy and holistic development, but there is not currently a wide range of research available related to what quality infant care and education should look like. I hope to add some level of knowledge and understanding to this gap in the research. This goal also aligns with critical ethnography, which aims to "refine social theory, rather than merely to describe social life" (Carspecken, 1996, p. 3).

Visual ethnography involves researchers using photographs, videos, artworks, and other forms of visual media to observe and learn about the culture or group of people being studied. For my research, I studied photos of participants' infant environments. Smith (2015) presents the idea that photographs can be used "…as a collaborative methodological tool, as a source of primary data, and as evidence from which one can clarify and challenge theories" (Twine, 2006, as cited in Smith, 2015). I used photos as data along with the interviews I conducted with participants to explore the ways infant educators can support infants as active decision makers,

and to challenge the belief that infants are passive, dependent, and not yet capable of initiating and leading their own explorations and learning. When reviewing the photos and/or videos shared by each participant, I looked for ways their image of the infant (which I asked each participant to describe in their interview) is represented in the environment they and the children engage in together. Smith (2015) also explains that "…visual images and visual imagery…help us capture, record, and understand lived narrative". By studying photographs of participants' classrooms, I wanted to understand more about the ways the components (materials, furniture, etc.) and design of the environment may support the children's and educators' daily experiences and promote positive opportunities for active exploration and participation.

While research involving interviews and participant-collected visuals such as photographs can vary in the ways these methods are carried out, there appears to be a somewhat common way of approaching this, as seen in Bromann Bukhave (2019), Hill (2013), and more. This process consists of first interviewing participants about the question(s) or topic(s) being studied, then gathering photos and/or other visual data collected or created by participants to be studied by the researcher, and finally engaging in a follow up interview with each participant to discuss their photographs and what they mean and/or represent to them. Bromann Bukhave (2019) discusses some of the benefits of employing these three steps for data collection in her research, explaining that, following the initial interview with participants, **"**Participant-generated photographs proved to be well suited for shedding light on subjective embodied experiences and for engaging participants in common reflections on everyday life" (p. 1). She expresses that these photographs helped to add deeper meaning to participants' responses in their initial interviews, which provided more "tacit knowledge" (Bromann Bukhave, 2019, p. 1). She then elaborates on the importance of the follow up interview, stating that this allowed the researchers to gain "new perspectives on topics from the previous…interviews or introduced entirely new subjects in the follow-up photo-interview" (p. 1). I followed a similar method of data collection in my research, although it differed slightly in the third step (follow up interview) from the studies mentioned

above. I began by interviewing each participant about their image of the infant and how they support this image and infants' abilities as active explorers and decision makers in their environment. I then asked them to send me photographs they took of the indoor and outdoor environments they share with the infants in their care. For my third step, I did not do a formal follow up interview, however after analyzing each participant's photographs I emailed each of them questions about their photos and how these related to what they talked about in their first interview. As Bromann Bukhave (2019) discovered in her research, I also found that my follow up questions helped me build "new perspectives" (p. 1) on the ideas and beliefs participants discussed in my initial interview with each of them and/or revealed "new subjects" (p. 1) or ideas related to participants' photos and the ways participants' environments support infants' as active explorers and decision makers.

In traditional visual ethnography, "the roles of photographer and interpreter are taken on by the researcher. More recently this has been questioned, and the collaborative effort of researcher and participant in creating a negotiated narrative is acknowledged" (Brace-Govan, 2007). In my research, I asked participants to take photographs and/or videos of their classroom environment and then send this data to me. Due to the Covid-19 pandemic, my ability to enter childcare spaces physically was diminished (as many childcare centres and providers were wary of allowing non-essential visitors in their environments, in order to reduce the spread of COVID-19 among their staff, children, and families). My research involved comparing educators' beliefs and values about infants to the ways their environment supports these beliefs and values in empowering infants as active decision makers. Therefore, visuals of each participant's classroom environment was necessary to my ability to effectively answer my research question (How does the 'image of an infant' held by Early Childhood Educators influence the decision-making opportunities made available for infants within an early learning environment?).

There are other potentially positive outcomes of asking my participants to share their own photos/videos of their environments with me as well. Brace-Govan (2007), discusses a possible

reason for participants to take their own photographs as being "that there could be information about their experiences that would be more available to [the researchers]…in pictorial form.". As discussed above, visual data was just as integral to my research findings as the data I collected from participants during their interviews. Participants taking their own photos not only provided me with visuals of their infant rooms but I was also able to interpret and draw conclusions about the elements of their environment that they find most meaningful for the children and themselves as co-learners and co-constructors. For instance, I saw evidence of environmental elements that participants find most meaningful and valuable to their work with infants in the focal points of their photos (e.g., one participant took several photos of climbing opportunities they had set up for the children, and then discussed the value of allowing children to explore and build their skills here). The number of photos participants took of each part of the environment (including materials) also suggested what areas they connect most with in their environment and/or what areas they feel are especially valuable for the children. In this way, the visual data shared with me by each participant not only gave me information about the objects in the photos, but also the educator's feelings about and relationships with those objects. I found that this insight into participants' values related to their classroom environment added further richness and depth to my interpretation of the data. This realization aligns with Brace-Govan's (2007) statement that:

> It is here, in the exchange of meaning and interpretation, that the heart of visual ethnography is achieved. Although images are unavoidably subjective, they also open up new spaces for discussion, exchange, collaboration and interpretation that are not necessarily easily accessible.".

Viewing visuals captured by the participants themselves allowed me the unique opportunity to see their environment through their eyes. It is also possible that the participants' may not fully recognize all the ways their visuals relate to their own beliefs and values until they have the chance to review the photos and reflect on them, and on my research findings related to their

photos. These possibilities connect with the idea that "visual ethnography relies on the exchange of meanings between the participant and the researcher" (Pink, 2001, as cited in Brace-Govan, 2007). If I was uncertain of anything I saw in any of the visuals shared by participants, or if I needed further information or clarification about any elements in the photos, I emailed the participant for further information as needed.

Brace-Govan (2007) also discusses several potential challenges of allowing participants to take their own photos. For instance, she (2007) states that "…if specific types of pictures are required by the research, then the role of visual data needs to be reviewed and a directed approach is needed". In other words, if a researcher requires specific types of photos, participants may not provide these if they do not have a clear understanding of the researcher's expectations. I did my best to avoid this challenge by letting participants know the specific types of photos I am looking for from them (e.g., a shot of their environment as a whole if possible and close-up photos of the different areas of their room, including materials on shelves, invitations and provocations, diapering areas, etc.).

Brace-Govan (2007) also makes the point that when participants take photos or videos themselves, the researchers have no control over the quality of these visuals. However, ECEs take many photographs throughout each day, as part of their practice. They take photos and record videos of the children and the environment to help support and document the children's learning and development. In my experience, ECEs tend to become more knowledgeable and experienced with the process of taking clear and effective photographs over their time in the field. Since my participants will have been in the field and working with infants for at least 3 years, they likely have had the opportunity to build on their photo-taking skills in that time. All participants' photos were clear and focused.

Another challenge of using photos to observe environments in visual ethnography that Smith (2015) discusses involves the concern that "While photographs present an authentic reality, they are but representations of reality which authenticate narratives particularly when interpreted using cultural codes…Thus, observers may, or may not, assume photographs present reality when in fact they do not always do so". There is a risk that, since participants took

their own photos of their classrooms, they may have engaged in "staging" the environment in some way (e.g., setting it up differently than it usually looks in an effort to show me what they thought I wanted to see). If they did so in their photos, then I would not have received a truly accurate depiction of the environment that the infants in their care engage with every day, and this could have impacted my research findings. I strove to reduce the chances of this occurring by reassuring the participants when I asked them to send me the photos of their classroom that I was not looking for "perfect" or "ideal" spaces. I assured them that I was looking to view the environments that participants and the children engage in every day. I believe that my experience as an infant ECE may have helped participants feel more at ease, as I was able to reassure them that I know how busy their days are, and I understand that early childhood environments are often in an ongoing state of change and flux, as educators adapt the environments to support the children's needs and interests, and that I recognize that this reality is part of how educators support young children in the classroom. I did everything I could to communicate to participants that I was not looking to judge or criticize their classroom environments.

Another factor that may have helped to reduce the chance that participants "staged" their environments was that I was looking for a wide range of criteria (placement and set up of learning areas, variety and accessibility of materials, opportunities for developmentally appropriate challenges and risk-taking, opportunities for independence in learning and care areas, etc.) when studying the photos/videos. Thus, it would have been challenging for them to make all of these changes in a short period of time (I asked for the photos and/or videos within 24 to 48 hours of each participant's interview), especially since they were not aware of these exact criteria prior to sending me their visuals. They were asked to share visuals of all areas of their classroom, including learning and care areas, and the materials available in each learning area, but were not specifically told that I was looking for variety and accessibility of materials, opportunities, for risk-taking and scaffolding, etc., as mentioned above.

My research differed from most ethnographic studies (critical, visual, or otherwise) in relation to the amount of time spent doing fieldwork. Generally, ethnographic research is

conducted over a period of time, wherein the researcher immerses themselves in the culture of the people being studied. In traditional ethnography, this is often done through researchers physically interacting with the participants in their environment. In visual ethnography, researchers will often study photographs, videos, and/or other visual media (collected over time) that represent the participants and their environment, cultural practices/traditions, etc. (Smith, 2015). I, on the other hand, only observed each participant's classroom environment through one set of photographs they shared with me, and then used those artifacts to interpret the ways each participant's environment supports infants as active participants and active decision makers in the classroom. This fact may have made it more challenging for me to develop a broad understanding of the participants and their environments. However, I believe that my own experience as an infant educator for many years, and my knowledge of the challenges, rewards, and realities of day-to-day life in an infant classroom helped to mitigate this obstacle. While studying the photos, I had to balance the dual roles of "outsider and insider" (Genzuk, 2003, p. 3). Although my insider knowledge of infant education and its cultural aspects helped me to understand some of what the participants do and feel in their work, I also needed to be cautious about the ways I interpreted what I saw and heard during interviews and in the photo data participants shared with me. As Genzuk (2003) states, "We cannot assume that we already know others' perspectives, even in our own society, because particular groups and individuals develop distinctive world views" (p. 4). To guard against any potential preconceived notions interfering with the authenticity of my research, I continuously evaluated and reflected on my own beliefs and interpretations throughout this process. I was mindful of ways I could avoid making unfair assumptions and judgments about the participants and their environments. Some of the ways I accomplished this were by questioning myself and my interpretations throughout each stage of this study, and recording these reflections throughout the process of analyzing the data (e.g., through annotations analyzing interview transcripts and field notes while studying participants' photos). Josselson and Hammack (2021) refer to this reflective practice as

"Methodological integrity…[which] depends on a reflexive process in which analysts carefully consider and document how their position influences every step of the research" (p. 14).

Participants

The participants of this study were three Early Childhood Educators currently working with infants in Nova Scotia. Participants were required to have at least three years experience working with infants and have training on and familiarity with child development, through a diploma or degree program in early childhood education, and/or relevant workshops and resources. These requirements were expressed in the letter of informed consent signed by each participant and were reviewed in a pre-interview meeting with each educator.

Participants were advised that they would need to be comfortable exploring and sharing their philosophies about and experiences with infant education and care, such as their image of the infant and its relation to their practice. They also needed to be comfortable sharing photos of their classroom environment with me.

Interviews

The interviews were semi-structured, in-depth, and conducted one on one with each participant. Each interview lasted approximately 1 hour. The interview questions were open-ended and descriptive (Spradley, 1979), to encourage participants to respond with as much detail and authenticity as possible. I strove to build trust and rapport with participants by conducting the interview as a "friendly conversation" (Spradley, 1979, p. 55). Spradley (1979) describes this approach as a conversation "…into which the researcher slowly introduces new elements to assist informants to respond as informants" (p. 58). Spradley (1979) also defines the two most important aspects of the interview process as "developing rapport and eliciting information" (p. 78). Establishing rapport with each participant was especially crucial for me, as I only conducted one interview with each participant. As DiCicco-Bloom and Crabtree (2006) explain, "Unlike the unstructured interviews used in traditional ethnography where rapport is developed over time, it is necessary for the interviewer to rapidly develop a positive relationship during in-

depth interviews" (p. 3). Some of the ways I tried to build trust and rapport with each participant included displaying and maintaining a positive and welcoming attitude, engaging in active listening, and showing genuine interest in what each educator had to say. As Van Den Hoonaard (2012) advises, I attempted to "adopt the attitude of a learner… [to show that I] respect the knowledge of…participants" (p. 66). My goal with this strategy was to help the participants see me as approachable and worthy of their trust. To help keep the tone of the interview "open and inviting" (Van Den Hoonaard, 2012, p. 88), Spradley (1979) also suggests that "A few minutes of easygoing talk interspersed here and there throughout the interview will pay enormous dividends in rapport" (p. 59). My overall aim was to put participants at ease as much as possible so that they felt safe and secure in sharing their "personal experiences and attitudes as they actually occurred" (DiCicco-Bloom & Crabtree, 2006, p. 3). DiCicco-Bloom and Crabtree (2006) identify four stages of rapport that interviewers and participants go through: "apprehension, exploration, cooperation, and participation" (p. 3). Participants progress through each one as they spend more time in the interview, build trust with the interviewer, and come to feel that they and their answers are respected and valued (DiCicco-Bloom & Crabtree, 2006). Throughout each interview, I strove to be mindful of the fact that building rapport with participants was a process that requires patience, understanding, and compassion.

When preparing the interview questions, I took inspiration from a method described by Phil Carspecken (1996) in his book *Critical Ethnography in Educational Research*. I chose two to five topic domains I want to learn more about, (participants' image of the infant, the ways infants communicate, the ways infants explore, learn, and make decisions). I then created one "lead off" (Carspecken, 1996, p. 156) question, which will aim to "…open up a topic domain that one wishes a subject to address" (Carspecken, 1996, p. 156) for each domain. Van Den Hoonaard (2012) suggests starting with questions that "the participant will find relatively easy to answer" (p. 86), which will help to build rapport and ease any nervousness participants may feel. Prior to conducting the interviews, I prepared several potential follow-up questions related to

each topic domain. This allowed me to be flexible regarding which questions I asked and how I asked them. According to Van Den Hoonaard (2012), "Interviews are structured by both the interviewer and the respondent" (p. 80) and create an "intrinsic sense of reciprocity between the interviewer and participant" (p. 89). Spradley notes that when a flexible approach is taken to interview questions, "Answers can be used to discover other culturally relevant questions" (p. 85). I attempted to let the participants lead the interview as much as possible, and adjusted my questions and needed. As Turner (2010) explains, "The researcher remains in the driver's seat with his type of interview approach, but flexibility takes precedence based on perceived prompts from the participants" (p. 2). My hope was that maintaining flexibility throughout the interview process would encourage the participants to share important insights into the culture of their practice and classroom that I had not previously thought about and would not have discovered if I had tried to control or lead the interview too much. My overall goal as an interviewer was to "encourage the interviewee to share as much information as possible, unselfconsciously and in his or her own words" (DiCicco-Bloom & Crabtree, 2006, p. 3-4). After all, the "participant is the expert on his or her own lived experience" (Van Den Hoonaard, 2012, p. 89).

I prepared the following interview questions:

1. How would you describe your role as an infant educator? What is your role in supporting infants as active participants in the classroom?
2. For those people who do not spend a lot of time around infants, how would you describe to them the process of infant/adult communication? Can you give examples of infant/adult communication in your program?
3. How would you explain to others **what** infants learn while they are in your program? How would you explain to others **how** infants learn while they are in your program?

4. What do you find most rewarding about working with infants?
5. What do you find most challenging about working with infants?
6. Are you familiar with the term "Image of the Child"? If so, where have you heard it? How would you describe your image of the infant?
7. How would you describe your role as an infant educator? How do you think educators can best support infants' learning and development?
8. What do you feel infants in early childhood settings need from their educators? How do you think educators can best support infants' learning and development?
9. How do you think the environment in infant rooms can support infants in be active participants? How can the environment support infants in being active decision makers?

Interviews were conducted one-on-one over Microsoft Teams (I emailed an invitation link to each participant prior to my interview with them). I used two electronic voice recorders to record each interview, to ensure accuracy in data collection and analysis. I took written notes during each interview as well, which mainly focused on my own reflections, ideas, and feelings as they occurred in the interview process. However, I was careful not to focus too heavily on writing as I did not want this to interfere with my efforts to engage in active listening and connect with participants. I wanted to be tuned in to them and their responses by maintaining eye contact, giving verbal encouragement and acknowledgment as needed, and continuing to build and maintain trust, respect, and rapport throughout the interview process.

Observations

When reviewing the photos shared by each participant, I looked for ways their image of the infant is represented in the environment they and the children engage in together. I studied the design and flow of the space and learning areas, the variety, and accessibility of materials,

opportunities for developmentally appropriate risk taking (e.g., climbing), as well as other relevant criteria, in an effort to demonstrate the ways an educator's image of the infant can influence the learning environment in order to support and scaffold infants as active decision makers in the classroom.

After my interview with each participant concluded, I asked them to send me photos of their classroom environment within 24 hours. All three participants emailed me photographs of their infant environments (both inside and outside environments) through my MSVU email address. I informed participants that the visuals they sent me needed to meet the following criteria:

-Clear, non-blurry photos and/or videos of their environment.

-Photos and/or videos that show each area of their classroom, including learning areas (dramatic play, sensory, gross motor, literacy, etc.) and care spaces (changing tables, lunch/ snack/ feeding areas, nap/sleep spaces, etc.). I let participants know that multiple photographs may be taken of one area if needed to give an accurate and full depiction of this part of the environment.

-No children or other adults should be visible in these photos or videos.

When analyzing this visual data, I studied many aspects of the environment as seen in each participant's photos and/or videos, including:

-classroom design

-placement and set-up of learning and care areas

-number and variety of materials

-how materials are displayed and made accessible to children

-Opportunities for developmentally appropriate challenges and risk-taking

-Opportunities for independence in learning and care areas

When viewing and analyzing the data based on these criteria, I reflected on what these criteria (including the degree to which they were present or absent) communicated about the culture of the classroom and the relationships of the adults and children within it.

When viewing the visual data shared by participants, I recorded my observations using detailed and descriptive field notes, which included my personal impressions and reactions to what I observed in the visuals, notes related to my methodology, and potential ideas for further use of the information I gathered (Sangasubana, 2011). I also recorded any questions that occurred to me about each participant's environments (e.g., how children use certain materials present in the photos) and emailed these to participants when I was finished studying their photos. If I needed more photos from any participant (e.g., close-up photos of shelves to see what specific materials were on them and how the materials were organized and made accessible to the children), I emailed them to request these so that I could ensure my knowledge of their environment was as accurate as possible.

Data Analysis

As soon as possible after each interview I transcribed the audio recordings I collected. I then checked the audio and written data I had collected for consistency by listening to each audio recording while reading through the written transcripts, to discover and correct potential errors (Van Den Hoonard, 2012, p. 92). I also checked for consistency between participants' interview responses and my observations of classroom environment visuals. If I discovered any potential inconsistencies or am confused about any of my findings, I consulted with the participant(s) about these for clarification (Carspecken, 1996, p. 165).

I viewed and recorded detailed field notes about the visuals I received from participants as soon as possible after I received them, to ensure my impressions and memory of my interview with each participant were as fresh in my mind as possible (so that I would be able to accurately reflect on and compare each participant's interview with their environment visuals).

Van Den Hoonaard (2012) states that data analysis should begin and occur at the same time as data collection (p. 115). She suggests recording many different sources that "may help you understand your data later on" (Van Den Hoonaard, 2012, p. 116). These include the researcher's own reflections and ideas, connections they make about what they have seen, heard,

or felt, and notes about articles or books that might help support their research (Van Den Hoonaard, 2012, p. 116). She even advises recording "…any pertinent comments others make about your research, as such comments can help you approach your research topic from a wider perspective" (Van Den Hoonaard, 2012, p. 116). Carspecken (1996) describes this process as a "kind of brainstorming…a place to 'think on paper' about the culture under consideration" (p. 72). Engaging in this kind of reflection gave me a great deal of potential inspiration to draw from during the more formal data analysis process, and helped to ensure that I did not enter into this process with "predetermined concepts, hypotheses, or theoretical frameworks" (Van Den Hoonaard, 2012, p. 115). As Van Den Hoonaard (2012) warns: "You do not want to mutilate your data to fit your preconceived notions" (p. 115).

Next, I began the process of coding my data, in an effort to "refine my research questions" (Van Den Hoonaard, 20012, p. 118). I engaged in the two levels of coding described by Van Den Hoonaard (2012). The first type, "open coding" (p. 119), is also referred to as "low level coding" by Carspecken (1996, p. 95). Open coding involves reading through notes and transcripts and categorizing recurring terms, phrases, and topics into themes (Van Den Hoonaard, 2012, p. 120). Van Den Hoonaard (2012) advises researchers to note any and all potential themes that stand out to them during this process, and to trust that "The most important themes and questions will become clear to you as your research progresses".

The second type of coding I engaged in is called "Focused coding" (Van Den Hoonaard, 2012, p. 119). This involves carefully reading through the open coding I have conducted on each transcript and set of field notes to weed out "less useful codes and begin to focus on a select number of more productive codes" (Van Den Hoonaard, 2012, p. 121). Van Den Hoonaard notes that "As you go through the data more closely, you will discover concepts and have ideas that escaped your attention when you were reading to identify your initial codes" (p. 121).

In an effort to maintain the integrity of participants' ideas, beliefs, and practices, I also

drew from the framework of narrative analysis and the power of stories told in participants' own words during my data analysis, and while discussing my findings. Van Den Hoonaard (2012) states that "Because the participant is the expert on his or her own situation, you can understand the data only if you know what the data means to each participant" (p. 121). The process of storytelling "reveal[s] something about what makes us tick…something about our fundamental beliefs, convictions, and habits (Van Den Hoonaard, 2012, p. 122). In my research, I wanted to develop an authentic understanding of the beliefs Early Childhood Educators hold about infant education and care, and how these beliefs impact their daily relationships and interactions with young children. The image of the child (or in the context of my research, the image of the infant), a core concept of child-centred care and education, is in a sense a story that educators develop about young children. This story includes what the educator believes children feel, do, like, want, and need from adults, peers, and their environment. It is a story that each educator builds on throughout their lives and their daily practice. By asking them to reflect on and describe their image of the infant, I aimed to encourage each participant to tell me a story about what they believe, why they believe it, where their beliefs come from, and so on. Each participants' story helped me discover the ways they "position themselves in their worlds [as infant educators] and make sense of themselves through stories" (Josselson & Hammack, 2021, p. 5). Emphasizing the value of narratives or stories in the context of a critical ethnography framework helped me to "bring teachers' voices to the forefront by empowering teachers to talk about their experiences" (Creswell, 2012, p. 502). Van Den Hoonaard explains that "In interpretive research, we can analyze stories to understand how our participants understand their place in the world and how they interpret their own status in relation to others" (p. 122). This approach helped me to highlight the value of child-centred approaches to infant education and care, as well as the successes, challenges, and needs of infant educators and the rights and competencies of children under two years old.

Visual ethnography also seems to lend itself to the practice of storytelling and narrative

analysis. According to van den Scott (2018), "We use visual methods to tell a story. A picture remains worth a thousand words. Diagrams make muddy waters clear. Imagery can help us explain our research to others." Similarly, Smith (2015) explains that "Visual ethnography is a form of observation where the role of the researcher is to encourage a story to unfold…meaning is provided by the observer by interpreting the signs, the symbols embedded intentionally, or accidently in the text, picture, or view.". The photographs participants shared with me helped me piece together a story of how their beliefs and values relating to infants influence the way they interact with and design and cultivate learning and care environments for these young children.

Ethical Considerations

Anonymity

Anonymity of participants in research means that their identity is protected and remains unknown and unknowable by others. I was not able to completely protect the anonymity of the educators who participate in this study because their co-teachers and directors may know that they took part in this research. However, I did my best to ensure that the identities of the participants were protected as much as possible. I did not collect personal information such as phone numbers, home addresses, ages of participants, etc. Only I and those involved in the study with the participants (e.g., Directors) know the participating educators' real names and identities.

Confidentiality

While true anonymity refers to the complete protection of a participant's identity, so that even the researcher does not know their identity, confidentiality guarantees that although the researcher knows who the participants are, they will not share the participants' identities with anyone outside of the study. Therefore, while I was not able to provide participants with complete anonymity in this research, I was able to ensure their confidentiality. Pseudonyms were used for all people and places referenced in my notes and written research. Audio

recordings containing names or any other identifying information was only be listened to by me. All audio recordings, transcripts, notes, and any other materials containing identifying or confidential information were kept private in a locked carrying case or on a secure computer in password-protected files that was only accessible by me, the researcher.

Risk

This study posed minimal risk to participants because they were not asked to reveal any information related to their philosophy or practice that they would not reveal ordinarily in conversations with other educators or consider in their own reflections on their work. There is a risk of experiencing slight embarrassment or a feeling of dissonance or internal conflict if they experience a disconnect between what they say (their philosophy) and what they do (their practice) in the classroom. However, if and when this happens it will provide an opportunity for participants to reflect on their work and potentially grow in their ability to support infants' learning.

Consent

Participating educators were required to read and sign a letter of informed consent (Appendix A) which described the purpose of this study and the nature of their involvement.

Participants were made aware that they can choose to end their participation in the research process at any time. I informed them of this before, during, and after each interview.

Results

This section presents the findings based on an analysis of the data from participant interviews (three participants were each interviewed one time) and from the photos participants took of their early childhood environments (both inside and outside areas). What follows are excerpts from the interviews of each participant related to the themes that emerged while I analyzed their interview transcripts. These themes are words, phrases, and ideas that each

participant referred to repeatedly throughout their interview when discussing their beliefs about infants and the educator's role in supporting infants. After the findings of each participant's interview are presented, the written descriptions of their environment will be shared. I will then discuss my interpretation of the connections between each participants' beliefs about the ways infants can be active participants and decision makers and the ways each participant's environment supports and reflects their beliefs.

Participant Profiles

Alyssa is an early childhood educator in the HRM who has worked with infants at the same centre for many years. Over this time, Alyssa's passion for working with this age group has continued to grow and she strives every day to support these young children in exploring and learning about the world and what interests them.

Maureen is an early childhood educator who works with infants at a centre in HRM. She has worked with this age for several years and takes great joy in the time she spends with them each day. She is eager to continue learning about this age group and how she can best support their learning and development.

Carly is an early childhood educator in Nova Scotia who has worked with infants for many years. She is dedicated to being a lifelong learner, especially when it comes to her professional practice. Carly continuously engages in professional development workshops and seeks other resources to increase her knowledge and understanding of infant development. She is reflective and strives to grow in her ability to care for and support infants and their families every day.

Participants' Stories

Alyssa: "I am here to walk alongside"

In May 2022 I interviewed Alyssa about her image of the infant and her beliefs about the ways early childhood educators can support infants in being active participants and active decision makers in the child care environment. Three main themes emerged as I analyzed

Alyssa's interview. The first theme involved the importance of infants' learning that they have "power" and "ownership" during their explorations and interactions with educators during care routines and play. The second theme focused on the concept of observing and "listening" to infants by striving to understand all of the non-verbal and verbal ways they communicate their thoughts, ideas, interests, and needs. The third theme related to her belief that infant educators need to "slow down" in their interactions with infants and to trust that each infant will learn and develop at their own pace with support from their educator.

Interview

Theme One: Giving Infants "Power" and "Ownership"

During my conversation with Alyssa throughout her interview, she discussed what she believes her role as an ECE is in empowering infants to lead their own explorations and make their own discoveries:

> Wherever they can take ownership, give them ownership. It's going to be slower, it's going to be messier, it's going to be all the things, but that's the only way they're going to realize they have the power to make the choices of what they want to eat, what they don't want to eat. What they want to play, what they don't want to play".

One example she gave of her role in promoting infants' abilities to actively make choices and participate in their care involves supporting infants in learning to wash their hands. She said she begins this process with each child as early as possible by first washing their hands for them and then when they are ready, encouraging the infant to start washing their hands (placing their hands under the water, rubbing soap on their hands, exploring this sensory experience and the hand washing steps she has previously done with them) and helping them finish as needed. She explained that eventually, the infant will be able to engage in this process by themselves, and that her goal is to support infants in "actively participating" in the routine and program as much as possible. She sees her relationship with the children as "collaborative" and is able to put herself in an infant's place: "I don't know how much I would enjoy somebody doing things to me.

Even if they were care routines, like, I [would] still want to be an active [participant]".

Alyssa described another example of this process of showing infants that they can have power and ownership over their own explorations and decisions, saying

> If a child is sitting there and wants the toy, I am not the individual to go 'Oh here' and hand it to them. I will sportscast [narrate out loud what the child is doing and what they are trying to achieve (reaching the toy)] and get them over to that toy…yes, I will cut in if it's getting too escalating, like if they're losing it I'm not going to go 'Well no, you've got to do it', but I am going to read the child and go 'You can do this, you do not need me to do it for you.'

For Alyssa, the value of supporting the infants in her care to become active participants and decision makers through recognizing their own power and ownership within their daily experiences begins as early as possible; from the time they enter her care (as early as three months of age). She also explored the importance of empowering infants when asked about her image of the infant, where she focused heavily on her belief that infants are "capable", repeating this numerous times and clarifying that "They're capable of doing things that…they've shown the drive to do or the interest to do…they're able to determine what they want to learn and how they want to learn it and what they want to explore". She describes her role with infants as one of bringing her image of these children as capable to life, and allowing them to show her what they can do, learn, and discover: "They teach me every day what they're capable of".

Theme Two: Observing and "Listening" to Infants' Communication

When discussing her role in observing and "listening" to infants, Alyssa explained that she believes that infant educators (whom she refers to as educarers, a term coined by Magda Gerber, who developed the Resources for Infant Educarers (RIE) philosophy) such as herself can best support infants as active participants in early childhood settings "By listening to them, and by actually taking their cues and following their interests". She went on to discuss the process of offering materials and experiences as:

> Different provocations I can put out that broaden [the infants' inquiries] little by little, and then if they don't follow that path, then I know that I read it wrong. Let's go back to where we started and re-try a different angle, to give them what they're craving. Whether it's, you know, they're four months old and are reaching out to grab something and 'I've got it now and I'm exploring it'. Right up to the twelve month old…who's kind of like 'Can I step off this and step back up? I [can] use the stair motion'.

Alyssa is "listening" not just to words infants may say, but also the language they use most often non-verbal language, such as facial expressions, gestures like pointing, eye contact (e.g., how long they look at an object or person), and vocalizations such as laughing, grunting, shouting, or crying. Observing and paying close attention to all the different ways infants communicate what the need, want, feel, think, and wonder helps Alyssa understand what the infants in her care are expressing about themselves. She firmly believes infants are always communicating in an effort to interact and participate actively with others: "They're going to show you what they need, you just need to stop, look, and listen. Like, those are the things you need…to communicate with the individual [infant]". During her interview, she described her role as an educarer being one of observer and interpreter, to help ensure she is accurately understanding and responding to infants' needs, thoughts, and interests:

> Observe, observe, observe – versus jump in and 'Oh, you're doing this, let me throw that at you, let me throw this…that following and observing, so when the play comes, where are they going with the play? What is actually happening with the play? Just because I think they're going to use the materials that way, that doesn't mean it's going to be [that way]".

For Alyssa, observing, listening, and striving to authentically understand all the thoughts, ideas, feelings, and inquiries infants communicate "…allows them to choose. It allows them to show you what you need to put out". She explained that "…that's where you [an infant educator] live…pulling out and pushing back and knowing when to kind of back off and

knowing when to step in…that's what's really important. It's important for all educators, but it's really important for the infants, because it allows them to trust their own…thoughts and things that they're sorting out". Alyssa believes that when educarers observe, listen to, and learn to understand the infants they work with, those infants develop a sense of agency and trust in their abilities to make decisions, explore their own ideas, and actively participate in their own inquiries and learning.

Theme Three: Slowing Down and Trusting Infants to Learn at Their Own Pace

When exploring what it means for educators to "slow down" in their interactions with infants, Alyssa discussed the importance of viewing infant development through the lens of "not rushing to the finish line…that everything will occur, slow and steady wins the race". When I asked her how she thinks educators can best support infants' learning and development, she responded: "By just slowing down…really, the biggest part is slowing down because when you slow down, you see…don't be thinking about what you're cooking for dinner, but actually be engaging and present". Alyssa also discussed the importance of giving infants time to think and respond in their own ways by asking them open-ended questions. She explained that although some educators might feel uncomfortable asking questions to infants who may not be able to respond verbally, "This isn't about you [the educator]. This is about them. And asking those questions and then watching them…[allows] them to show you [what they need from you] with…the way they move their body when they look at you". She went on to state that she believes infant educators should strive to "…be more comfortable just being able to talk…throw the idea out there and not need a response…that means that you are going to have to learn at some point to not have that void filled". For older infants "who are using language", Alyssa explained that asking open-ended questions and "…giving them the pause…they can fill it in…It's kind of that we slow language down, so they can actually get the time to: 'Wait, this is what I want to say'". She feels strongly that slowing down and giving infants time to respond is an important way to respectfully allow them to opportunities to understand and share their ideas,

make decisions about what they think, feel, and need, and actively participate in interactions with their educators.

Alyssa also discussed the idea that when early childhood educators trust infants to experiment with and explore their abilities and inquiries, educators are able to slow down and better support infants in being active participants and decision makers in the program and environment. She stated that over her years working with infants, these young children have taught her to slow down and trust in their inquiries. She feels that her role is not to direct or control the infants and what they are learning or how they are developing, but instead she believes that "I am here to walk alongside. You show an interest in something, it is my job to find more of that to allow you to explore it, while also making sure you're fed, you're comfortable, you're content". She knows now to "Watch what they can do and feel them and feel their energy and if they tumble, well then help them up again". She further explained that, by slowing down and trusting infants to lead their own explorations, educators can better support these young children as safe, secure, and active, confident participants in an early childhood environment:

> If we trust that they know what they're exploring, we'll be able to communicate and guide with them. They need to trust that we're there for them and that we will meet their needs…so there's a back-and-forth kind of trust. The trust and belief in…their inquiries or the things that they're testing, or the things that they're looking at…[educators need to] pause long enough to see it…[and] trust them to find what it is they want to show you.

Photos of Environment

Alyssa emailed me 18 photographs of her infant environment, including both the indoor and outdoor spaces. In Alyssa's classroom, referred to in her centre as Infant Room 1, she is the only educator. She works with four infants. There is a second infant room (Infant Room 2) next to hers with two educators and eight infants. These two rooms are connected by a set of doors that are sometimes open and sometimes closed depending on the ratio in each room. When the

two infant rooms are able to share their spaces (when ratio in each room allows) they open the doors and allow the children to flow between these two rooms. This tends to happen most often at times of the day when ratio is lower, such as early morning, late afternoon, and in the middle of the day when some of the infants are napping. The photos Alyssa shared with me focus mainly on her room and the shared outside space both infant rooms use, however they also include images of the second infant room as Alyssa and her infants do spend some time in this environment each day as well.

After studying and analyzing Alyssa's photographs, I emailed her a list of 19 questions I had about her space (e.g., how the infants use certain materials or areas of the room or outside space, why she has chosen to set up certain areas in the ways she has, etc.), which she responded to in detail. Alyssa's indoor infant environment is a space where the walls and furniture (tables, chairs, shelves, etc.) are neutral cream, beige, and light wood shades. One wall is covered mainly with windows, which she told me does allow for a "significant amount of natural light", although she said there is an overhang outside…[that] does impact how much natural light gets into the room, especially on rainier days. There are multiple lamps, however, in the room which can be used in lieu of the fluorescent ceiling lights, to help create a more calm and homey atmosphere in the room. There are plants in the room as well, one on a shelf and a larger one with leaves draping down over the side of the pot hanging from the ceiling. Although they are out of the children's reach for safety reasons, they are still visible to the children and help to bring a natural, home-like feel to the room.

There are shelves on the children's level where materials are accessible to the children at all times. Currently, these include a mix of traditional toys and real objects for the children to explore: large plastic dinosaurs, a basket of lightweight balls, a purse and set of real keys on a toy keychain, a real landline telephone (not working), a set of wooden bongo drums, several plastic manipulative toys, and a wooden puzzle. Alyssa has created a quiet/cozy area in one corner of the room by placing a mattress on the floor with a pillow, baby dolls, and a basket of

books are accessible to the infants in this spot. On the wall beside the mattress is a large piece of Bristol board that Alyssa has glued pages she has photocopied from the book "Brown Bear, Brown Bear, What Do You See?". The pages are displayed in order so the infants can look at the words and pictures and explore the story in large format. She explained that this display has been up on the wall through more than one group of infants as "Brown Bear is a favourite. I keep meaning to change it but they love it and use it in a variety of ways (animal sounds, colours, etc.)". Beside the quiet/cozy area is a pull-up bar attached the wall at the infants' level. Behind this bar is a large mirror where the children can see themselves (multiple children could sit or stand here side by side and see themselves and each other).

Alyssa explained that in general, she rotates play materials depending on what she observes the children showing an interest in. She also adds items as necessary to support the children's inquiries. She noted that "Various art/sensory activities occur based on interest… during the day, bubbles are a favourite". Books are also rotated based on the children's interests and are often "set up as a provocation (book with corresponding exploration beside it) on the shelf". The infants in Alyssa's room also have access to the books and toys/materials in the Infant Room 2 when the doors are open between the two rooms. Other photos shared by Alyssa included provocations set up on tables in the Room 2 when both infant groups have access to each room. These include two sets of mirrored blocks, each placed on a flat rectangular mirror, a tray with a real stainless steel tea pot, two plastic cups, and several silicon muffin cups, and a set of plastic gears that can be attached and removed from a plastic board – when you turn one gear, any others touching it and the other gears around them will move. A provocation offered in Alyssa's room consists of a large plastic tractor with a trailer containing three farm animal puppets (cow, duck, cat) set up on a carpet in front of a mirror on the wall. These provocations are created and displayed in intentional ways to encourage the infants to explore and experiment with the materials.

There is a large wooden change table against one wall with a sink built into one side of

the tabletop and a mirror on the wall beside the change table (when the children are sitting or laying on the change table they can see themselves in the mirror. She explained the value of this mirror and the sink in this way:

> When changing diapers…[the mirror] allows me to see what is occurring behind me as I focus on the child I am changing. It also allows for the child to see themselves when we put on sunscreen or wash hands there…I wash my hands first and show them, and I will help them by either turning on the tap or wetting a paper towel (depending on the age and skill set) and then once hands are wet [I] give the soap and…[sing] a 'handwashing song'. During this they may watch themselves in the mirror, they then rinse and dry their hands. If they require cream…[we] would put it on together and then off to explore".

Being the only ECE in her infant room, Alyssa uses the mirror to help her ensure the other children's safety and well-being while also providing the child she is changing an opportunity to explore their role in this process. By having the mirror on the wall and the sink easily accessible to her and the child, she able to involves the child in each aspect of the diaper change without rushing them or having to interrupt the process by moving them from the change table to a sink. The mirror can provide a chance for the infants to think and learn in greater depth about their own active participation throughout this care routine (diaper changing, hand washing, applying cream with the ECE).

There is also a nap room that connects to Alyssa's infant room. Each child in Alyssa's care has their own crib in the nap room; on each child's crib, Alyssa has placed a photograph of their family. Each child's name is also on their crib, written clearly in large letters. There is a lamp on one wall to allow for some dim, soothing light in the room while the infants sleep.

The outside space is used by both infant rooms. It consists of a large rectangular space with an awning for sun and rain protection and a chain link fence on two sides. This outside space contains a variety of loose parts, including tree stumps and wood cookies, pots and pans, and a large spring attached to a wooden climber that the children can explore and manipulate.

The wooden climber has stairs on one side and slide on the other side. There is also a raised wooden platform on one side of the playground, and a small wooden play kitchen. Alyssa explained that the infants are encouraged to explore the outside space and materials "as they see fit". She stated that "The wooden stumps and tree cookies are moveable and children are encouraged to move them as they see fit…". She also explained that

> The [outside play] area is adapted according to the children's interests. If they are interested in cars then we ensure there are a variety of cars, chalk, etc. We also bring out heuristic baskets outside and weather permitting our sensory water play, etc., and if nice enough we will leave the doors open to allow for free flow of children between indoor and outdoor spaces.

Connections Between Alyssa's Image of the Infant and Her Infant Environment

In Alyssa's photos, I can see many examples of how her image of the infant and the main themes she discussed in her interview are reflected in her indoor and outdoor infant environments. I will discuss the connections between her interview and environment photos in this section.

Giving Infants "Power" and "Ownership"

In her interview, Alyssa discussed the importance of empowering infants to understand that they can initiate and direct their own explorations and learning. She believes wholeheartedly that the role of the adult lies not in solving infants' challenges and making choices for them, but in supporting infants to engage in their own problem solving and self-led learning through actively exploring their environment and making decisions for themselves.

One way Alyssa's environment provides infants a sense that they have power and ownership over their own choices and learning is through the sink that is easily accessible to them on the change table. With Alyssa standing beside them to ensure their physical safety and well-being, they are able to sit on the change table and wash their hands. Alyssa stated in her interview that the infants will engage more in hand washing more and more independently over

time as they grow more comfortable and capable with his routine, and she encourages them to do as much on their own as they are capable of. In this way, both this aspect of the environment and Alyssa's approach to the hand washing routine help to empower the children with this skill.

The pull-up bar on one wall with the mirror behind it allows infants to experiment with pulling themselves to standing. The mirror offers infants the opportunity to see themselves and to observe and actively explore their movements, which may support them with problem solving and learning to coordinate their bodies to experiment with physical tasks such as pulling to standing, standing while holding the bar with two hands or one hand, etc. Through their explorations in this part of the environment, the children learn that they have the power to explore their interests and master the skills they desire at their own pace.

The ways toys and other materials are made accessible to the infants in her care also contribute to Alyssa's ability to support and empower infants in becoming active learners and discoverers. The shelves are child-height, and the materials displayed here are easily visible. There are only a few items on each shelf, allowing the children to view what is there and remove whatever items they choose to play with, which help to empower them as active decision makers. Books are offered in the quiet/cozy area in a basket on the floor. Materials throughout the room are displayed intentionally and minimally (rather than shelves being overcrowded with toys, or items placed randomly and haphazardly around the room), further promoting infants' understanding that the room is set up for them, to support their self-led inquiries. Alyssa's infant room contains a number of traditional toys (puzzles, plastic rattles, balls) as well as everyday materials (cups, bowls, spoons, plates, real keys on a toy key chain, a real phone) which invite the children to experiment with real world objects and loose parts they may be curious about, as they may see the adults using similar objects around them on a frequent basis. Such everyday items allow young children to test their ideas and theories regarding how they work, what they are used for, and so on, inviting them to learn about the world around them and their role within it. This learning can help empower infants to begin to see themselves as capable humans who

can do what they see others around them doing.

In the outdoor play space, there are also many opportunities for the infants to experience their own power and ownership over the environment and their own active explorations and decisions. The many larger items available for the children to pick up, carry, push, pull, move, or use as they wish (large wooden stumps, tree cookies, real pots and pans, milk crates) promote problem-solving, critical thinking, gross motor exploration, and self-confidence. They allow the children to explore risk taking and make choices about how they want to use these materials. The wooden loft outside, where Alyssa encourages her infants to experiment with climbing up the slide and going down the stairs when it is safe to do so (when it is just a small number of infants outside), also gives the children the opportunity to experiment with their own abilities and build their skills in many ways. This risky play encourages them to consider others' perspectives (e.g., if one child wants to climb up the slide at the same time another child wants to slide down) and problem solve individually and/or collaboratively with peers and educators. The environment and Alyssa's encouragement of the children to explore and test their ideas freely help the children understand their autonomy and the agency they have over their own learning within their child care setting.

Observing and "Listening" to Infants' Communication

In her interview, Alyssa discussed the value of taking time to step back and observe infants' play before responding, so that they can strive to authentically understand what these children are truly curious about. She explained that infants communicate in many non-verbal ways, so it is especially important to for the educator observe this age group and reflect on what they are seeing rather than making assumptions about what the children are interested in. According to Alyssa, once she has taken the time to observe and reflect on the infants' explorations, she is better able to offer materials and experiences that support and extend on what the children have communicated about their inquiries. She then continues to observe, often engaging in a kind of trial-and-error process of offering provocations or experiences for the

children to explore that help her learn more about what they want to learn about. She will change or adjust the subsequent opportunities she offers the children based on how they used (or did not use) previous materials and/or experiences she provided them. When Alyssa observes that the children are showing interest in particular materials for more than one day, she makes sure these stay available in the environment so that the infants can "revisit" them and the educators can "watch for what they are actually engaging in the most to see if we can broaden on those…or if we need to kind of go 'Oh, no, they're just not into the purses, we need to bail on them for a while and try something else".

Alyssa shared several photos of provocations explored by the infants in her care, in both her room and the second infant room, as examples of the ways materials are intentionally set up to provoke investigation and discovery in her environment. One provocation in Alyssa's room involved a large tractor with a trailer attached in which Alyssa had placed several farm animal puppets. These had been placed on a carpet in front a large mirror on the wall so the children could explore these materials however they wished and also have the opportunity to watch themselves engaging with the materials. The different elements of this provocation may support Alyssa in observing and building her understanding of what the children think about these materials, how they might use them, how they may problem-solve any challenges that arise while they explore these items, and so on. She will be able to watch and "listen" to the ways infants communicate their possible inquiries through their responses to this provocation, and then make informed decisions about how she may further support the children's inquiries through new provocations or making changes to previous ones.

Another example of Alyssa observing and "listening" to the infants to learn more about them and what they need from her and the environment is the Brown Bear, Brown Bear pages she has laid out on the wall in the quiet/cozy area. The photos she shared of this area with me show the photocopied pages arranged in order on the wall. The pictures and text on these pages are clear and the pages themselves are large enough that the pictures and text are easily visible

providing many opportunities for the infants to interact with this in whatever ways they wish (Alyssa explained that the children have explored the different sounds the animals make, the colours they see, and so on). Alyssa stated in her interview that although this display has been up for some time (through many groups of infants), whenever she thinks about changing it she observes the current group of children showing a great deal of interest in these pages and decides to follow their lead and leave it on the wall. She "listens" to what they are telling her through the ways they interact with this display and the attention they pay to it.

In Alyssa's indoor and outdoor environments, shelves and larger furniture are mostly arranged around the edges of these areas, which creates ample amounts of open space that allow freedom of movement for children and educators. This space provides Alyssa the opportunity to more easily observe the infants close up as a participant observer (while she is interacting with them either one on one or in groups) and from farther away as a non-participant observer (during times when she may not want to interrupt their play). It seems that Alyssa is continuously striving to maintain a balance between responding the infants' inquiries with materials and experiences and stepping back to observe how the children themselves are responding to the responses and opportunities she offers them.

Slowing Down and Trusting Infants to Learn at Their Own Pace

Alyssa explained the importance of slowing down and being present with infants throughout the day – engaging with them at their pace, giving them time to respond to others' questions and interactions, and trusting them to make discoveries and learn at their own pace and in their own time.

The mirror behind the change table is one aspect of the environment that helps Alyssa and the children to slow down and be present in the moment together. She explained in her interview that this mirror "allows for the child to see themselves when we put on sunscreen or wash hands….If they require cream…[we] would put it on together and then [they would go] off to explore". The mirror gives the children the opportunity to slow down and focus on what is

happening throughout the diaper change and sunscreen application processes, and what their participation in these routines looks like. It may also help Alyssa slow down by allowing her the opportunity to see the infant's reactions to viewing themselves and her throughout these processes. She may learn more about what the infant is feeling and thinking during these routines through observing what they look at longest in the mirror, if they use the mirror to help them see where to add sunscreen to their bodies, and more.

The calming atmosphere evident in the photos of Alyssa's infant room seems also seems to promote the sense that slowing down, feeling comfortable and at ease, and taking time to explore and interact authentically within the environment are valued in this space. This soothing home-like feel is achieved through the neutral colours of the walls and furniture, the presence of plants and natural items around the room, carpets and soft seating (e.g., the mattress on the floor in the quiet/cozy area), and the natural light that comes into the room through large windows. All of these elements combine to help Alyssa's infant environment feel like an inviting, welcoming, and comfortable space for children and adults. The quiet/cozy area contributes to the feeling that Alyssa's room is a safe space by providing an area where infants can go to rest, relax, enjoy some quiet time away from other areas of the room that may be busier and noisier at times (e.g., play areas where children may be playing musical instruments such as the drums on one of the shelves, throwing, rolling, or kicking balls, pushing cars or trucks across the floor, etc.).

On one side of each infant's crib, Alyssa has placed a photograph of their family. When I reached out to Alyssa to ask follow-up questions about her environment photos, she explained to me that some children will look at or touch their family photos while they are falling asleep or when they first wake up. Sometimes when it is not nap time, the children will ask for their family photos by saying "Mama" or "Dada". Alyssa will respond to this request by removing the photos from the child(ren)'s crib and allowing them to explore and interact with the images. Family photos can have a calming affect on the children and help them feel to connected with

their family while at child care. When the infants are missing or thinking about their families, they are learning that Alyssa can provide opportunities such as viewing or holding their family photos to help them feel close to their loved ones. By supporting the children in this way, Alyssa can help them build trust and confidence in her and also in their child care environment in general. This may help the children understand that Alyssa trusts and respects their right to communicate their needs and wants and that she will support them any time they want to slow down and spend some time connecting with their family photos.

Maureen: "You still have to listen to what they're trying to tell you"

In May 2022, I interviewed Maureen about her image of the infant and her beliefs about the ways early childhood educators can support infants in being active participants and active decision makers in the childcare environment. After analyzing Maureen's interview, three main themes emerged. The first theme centred around Maureen's strong belief that infants deserve educators who interact and communicate with them in respectful ways. The second theme related to infants' non-verbal communication, and how vital she feels it is for educators to recognize and understand infants' cues. The third theme involved Maureen's ideas about the role of the educator in observing and responding to infants' interests to support their child-led explorations.

Interview

Theme One: Interacting and Communicating Respectfully with Infants

Throughout her interview, Maureen repeatedly discussed the importance of educators interacting with children on their level, face to face, to support them in feeling comfortable and secure in actively exploring their environment. At one point, she explained:

> You always get down to their level. So, you're not up here and they're down here… we're always on the floor, always on the mats. We're at their level so they can see it's okay to do what they're doing, somebody's still there with them.

Maureen also discussed what respectful communication with infants during care routines

looks like. She described how she and her colleagues talk with the children about each step of the routines – such as diaper changes or applying sunscreen – before they happen and while they are happening, to help the children feel comfortable and confident during these times. She explained that helping infants understand what is going to happen throughout each part of the daily routine can support these children during transitions (e.g., from play to snack time). In Maureen's experience, when the infants know what to expect during each part of the daily routine, they begin to participate in each part of the day more actively, and pursue more choices for themselves. She described how many children will eagerly choose the chair they want to sit in each day for snack or lunch. After each child eats lunch and has their diaper changed, they confidently go into the nap room with an educator "they know exactly where they're going and they just go to bed". When the infants feel confident that they know what to expect each day, this allows them to feel secure enough to actively participate in each aspect of the daily routine.

Maureen also believes adults should talk with infants like equals who deserve respect, rather than inferior or less important people: "We don't talk to them like…they're too young to understand us. We talk to them like I'm talking to you". When discussing her image of the infant, Maureen states "I just think they're capable of doing anything! They're very smart…people just like don't see that. You sit there and you see them observing every little thing that is going on around them and the next day they're doing it". By communicating with and treating the infants like human beings worthy of respect, Maureen believes educators can support infants in developing autonomy and engaging in active participation and decision making in their environments.

Theme Two: Recognizing and Understanding Infants' Cues

Throughout her interview, Maureen described how infants communicate in many different ways, including through cries, gestures such as pointing, etc, and explained that "They will show you what they want…when you're with them all day, every day, you just get to know their wants and needs". For Maureen, when educators take the time to observe and get to know

the infants in their care, they learn to understand each child's ways of communicating. She feels it is important for infant educators to show these young children that they are respected and valued by the adult, who will take the time to understand what their needs, wants, emotions, thoughts, and ideas: "Even though they don't have words, you still have to listen to what they're trying to tell you". Engaging with infants in intentional ways like this helps Maureen and her colleagues create an environment that is a "safe place" where the children feel comfortable communicating what they need, want, and feel, whether verbally or non-verbally.

One example Maureen discussed of the value of listening to infants involves supporting the children in her program to making choices about bodily consent. Maureen believes it is vital for infants to know they have agency and choice over how and when the educators touch them. She mentioned that through their observations and interactions with the children, a child may show them that they don't like to be "hugged" unless the child themselves initiates this physical touch. Maureen respects that this child "comes over on his own time, if he wants". She went on to emphasize that infant educators should:

> Never try to hold them [without their consent] or anything like that because we don't know if they like it or they don't like it…even when they're going to bed – so-and-so doesn't like you to touch them but they want you to sit there beside them.

Taking the time and making the authentic effort to understand and respect infants' cues and communication allows Maureen to support these children in being active decision makers in relation to their own bodies and their right to bodily autonomy.

Maureen also discussed the way listening to and understanding infants' non-verbal communication supports them as active participants and active decision makers during play. She said:

> They'll just go right over to where they want to go and they'll just be looking at you like 'Come on…come with me!' They'll come over and they'll – but not with words – express that they would like to go over there, or they need something – 'Come over with

me, I want you to play'.

Theme Three: Observing and Responding to Infants' Interests

Maureen described the process she and her colleagues engage in to learn about the infants' inquiries so that they can understand and support the children in actively exploring their ideas and interests:

> What we do is we kind of watch what they are looking [at] or touching around the room and then we'll go from there…lately they love to climb, so we've been putting our big mats and arranging them in different…obstacles, kind of like even a little obstacle course…little things like that and then the next day, we'll kind of add a few things into it…we'll take the mats down and move them so that they can climb under them…we really watch to see what they're interested in.

Observing and reflecting on ways they see and hear the infants engaging with their environment helps Maureen and her co-educators respond to these child-led explorations by offering opportunities that build on the ongoing play the children are actively engaging in. Maureen discussed the importance of intentional thinking when deciding how many materials to put out around the environment for the children to explore. "If you put less, it's a little bit better than more, with toys, because I find, we find, that if there's so many things out…they don't know what to do". Maureen finds that infants seem to feel overwhelmed when there are a lot of materials available at one time and they may find it more challenging to make decisions about what they want to play with. She explained that when materials are chosen thoughtfully and made easily accessible to the infants "They have no problem getting stuff down for themselves. They have no problem deciding what to play with".

Maureen also noted that infants often expand on their knowledge and abilities by observing others themselves, and then testing what they see:

> They watch and if they see somebody going down the slide for example…some of them don't walk but yet they can get up those stairs! And they can go down the slide because

they've been sitting there watching their friends who go up and down. It's really interesting to watch.

By observing and being mindful of what the children are focusing on, Maureen is able to sense when she as an educator can scaffold the children's learning by responding with materials and experiences, and when it is more meaningful to step back and allow the infants to learn from their peers and their environment on their own, through observation and actively deciding when they are ready to test what they have observed.

Photos of Environment

Maureen emailed me 14 photographs of the infant environment at her centre, both the inside and outside areas. Maureen works with two other Early Childhood Educators in the infant program and together they care for 10 infants. She expressed in her interview that she and her two colleagues collaborate well and support each other in their daily practice.

After analyzing the photos Maureen sent me, I emailed her a list of 13 questions (e.g., how the children use certain areas or materials in the environment, how often different areas are changed or rearranged, etc.). Maureen's indoor environment photos show a room with light wood panelled walls and natural wood-style floors. On one wall are three large windows. The shelves and tables are light wood and infant-height. The shelves and other furniture are mostly placed against the walls, leaving ample space in the room for children to move about freely. Soft foam mats of different shapes and heights are laid out on the floor for the children to crawl or walk on, as well as climb or explore in other ways. Some mats are rectangular gym mats that can be folded or laid flat. Some are flat half-circle shapes. One foam piece is square shaped and large enough for the infants to climb on; it has an arch-shape cut out of the bottom for children to climb through. Another large foam piece is shaped like a ramp and another is shaped like two stairs. These mats are all arranged in different configurations over several photos to show some of the different ways Maureen and her colleagues set them up as invitations for the infants to explore.

On the shelves, the educators have placed a variety of items that are easily visible and accessible to the children. These materials include a mixture of traditional toys and loose parts (trucks and cars, a bucket, a large bead maze, large plastic spools, a wooden log piece). On one wall, there are several large beach balls in a one-level wooden shelf and in front of this shelf are two doll strollers with baby dolls inside and a plastic ride on toy shaped like a lion. There is also a ride-on car in the room. There is a collection of musical instruments as well, including a xylophone, maraca, and two toy pianos. In two areas of the room there are paper streamers and strings of beads hanging from the ceiling and extending down to the children's heights. Maureen explained that

> The streamers and beads were one of our invitations. We played with both before and observed how much the infants enjoyed playing with them and thought of a different way to display them. We hung them from the ceiling and watched them run through them over and over again, laughing and chasing each other through them.

A wooden play kitchen is set up against one wall with several real pots and pans. There is a fabric tunnel that is set up often by the educators for the children to crawl through and Maureen stated in her interview that she tries to spend as much time as possible engaging here and elsewhere around the room with the infants: "we play with them a lot to, so we'll let them…like, I crawl through the tunnel with them". Spending time with the infants, on their level, allows Maureen to observe these children and their interests and abilities so she can continue to support their learning and development. Maureen and her co-educators have also created a quiet space in their infant room, by turning two table on their sides and draping a blanket between them. Under the blanket they have placed a soft mat on the floor with a large stuffed bear and some several books.

Maureen also sent me photos of invitations she and her co-educators have offered the infants to encourage active exploration of the materials in the environment. One of these shows a round plastic laundry basket with four scarves laced between the openings in the basket.

Another photo shows a large piece of white paper taped to a table with two flowered leis (one on each side of the paper) and crayons in the middle of the paper to invite the children to explore mark making, colour, etc. Maureen explained in her interview that invitations like these are always open-ended, and the infants are able to explore the materials and experiences offered in whatever ways they choose. She gave another example of this freedom of choice when explaining that some invitations had been set out over the past week for when the children arrived at the centre, however:

> The last few mornings they're just not interested in any of that. So, we have beads in our room, so you know the long beads that you…dress-up beads? I had brought a big container of those in, so that has been the main thing all week.

Maureen and her colleagues supported the infants in exploring the materials they wanted to play with in the ways they wanted to use them.

Maureen's outside environment is a large flat area with room for the infants to move about and a variety of materials that support them in actively engaging and exploring. There are ride on toys, large dinosaur toys, a small climber and slide, a wading pool filled with balls, a water table, a child-sized basketball net, and a number of buckets and containers. A wooden ramp structure stands on one side of the play space. It consists of a raised wooden surface with hand rails on the top and ramps on either side. There is also a tent that contains a second wading pool filled with sand, buckets, containers, and shovels.

Connections Between Maureen's Image of the Infant and Her Infant Environment

In Maureen's photos, there are several examples of how her image of the infant and the themes she discussed in her interview are reflected in her indoor and outdoor infant environments. I will discuss the connections between her interview and environment photos in this section.

Interacting and Communicating Respectfully with Infants

In her interview, Maureen discussed the ways she and her colleagues interact and communicate respectfully with infants, to build trust between children and educators. She strives

to be mindful of this by staying on the children's level, using and modelling respectful language, and communicating openly and honestly with infants about what they will happen during each part of the day. Her environment is set up to provide space for infants and educators to explore and interact together in collaborative ways that build mutual trust and respect between these children and adults. Maureen believes that sharing this quality time interacting and communicating with one another helps the children to feel confident actively exploring their environment and making decisions for themselves throughout the day.

One example of a way the environment supports Maureen in promoting respectful interactions and communication between herself and the infants involves the amount of open space in the environment, both indoors and outdoors. Inside, the shelves are placed mainly on around the edges of the room. The two shelves set up away from the walls are still arranged so that there is a great deal of space around and between them. This space allows educators and children plenty of room to sit with one another as they explore and engage with and/or alongside each other. This open space also allows for freedom of movement, so that children and educators can easily move around the room together or separately. The infants' outside play area is also quite large and spacious, with play furniture and large materials (e.g., climber, tent, wading pool, picnic table) spaced out intentionally to allow room for multiple children and educators to comfortably share spaces and move around as desired. When educators and children have ample room to explore in the environment together, and to move closer or farther away from one another as needed, this is more likely to promote positive and collaborative interactions than environments where children and educators are crowded together and are not able to move and engage as freely around each other and the environment. Open, roomier environments provide opportunities for educators to model and engage in respectful interactions and communication with infants, as they strive to support these children and their explorations.

Another way Maureen's environment supports her in respectfully interacting with the infants in her care is shown in the photos that include the infant-sized tables and chairs. The

Educators sit and interact with the children at these tables during snack and lunch times and when children are exploring materials and invitations on the tables. The variety of soft mats in the room can be used by educators when sitting on the floor to remain on the children's level. In the outside environment, there is an infant-sized wooden picnic table and two wading pools (one filled with balls and one filled with sand) where children can explore and educators can sit and engage respectfully with the children on their level. Having child-height furniture and materials where the educators can sit at the infants' level to engage with them promotes meaningful and reciprocal interactions and communication between children and adults.

A third way Maureen's environment supports respectful interactions between educators and infants can be seen in her photographs of her room's change table. There are a set of wide, sturdy wooden steps on one side of the change table that the children can use to walk up to the top of the change table by themselves before lying down on the change mat on top of the table. There are non-slip treads on each stair to help prevent the children from slipping or falling. The stairs can then be pushed underneath the change table so the educator has room to stand beside the child while they are changing the child's diaper. These stairs provide the infants in Maureen's care the opportunity to actively participate in climbing up to the top of the change table, which communicates to these children that Maureen and her colleagues respect their right to explore their own autonomy and agency during this part of their daily routine. When Maureen provides opportunities for infants to active participate in routines like this, she is building mutual trust with the children in her care and helping them to feel confident interacting with their environment.

Recognizing and Understanding Infants' Cues

In her interview, Maureen discussed the ways she strives to understand and "listen" to infants' cues and communication, whether they express themselves verbally or non-verbally. By tuning in and "listening" to the ideas, feelings, needs, and wants that these young children are sharing with her, Maureen can show them that she values everything they are trying to tell her,

which reinforces the infants' desire to communicate with her. Maureen believes that when infants are supported in this way, the environment feels like a "safe place" to the children she cares for.

One way Maureen and her colleagues have designed their environment to help them acknowledge and support infants' cues is through the quiet space they have created for the children in their care. This space consists of two tables that are laid on their sides with the tops facing each other. In the space between these two tabletops, the educators have placed a soft mat, a large stuffed teddy bear, and several books. A large sheet is also draped between the two tables to provide this quiet space a cozy atmosphere. This space invites children to rest and relax in this calming space away from other areas of the room that may be busier and noisier at times (when children are engaging in more active play such as climbing, rolling cars across the floor, etc.). By providing this space, Maureen is respecting the infants' right to access quiet, soothing environments that support their emotional regulation needs, which they may communicate either verbally or non-verbally through their utterances and actions, such as the child she mentioned in her interview who communicated through body language and other cues that he did not want to be hugged without his consent. If a child is feeling overwhelmed by the number of peers and educators close to them or touching their body, a quiet space like the one Maureen has created may provide a safe refuge for them to soothe and recharge, either by themselves or with an educator.

Another way Maureen supports and respects children's cues and communication can be seen in the photos of her nap room that she shared with me. Her nap room contains a large wooden rocking chair. The children's cribs are spaced out from one another, allowing space for educators to sit beside each crib or move from one crib to the next to support children in falling asleep as needed. In her answers to the follow up questions I sent her after viewing her environment photos, she explained that "Each infant has their own crib, blanket, sleep sack and sookie (if needed)". Maureen respects that each child may need different objects or comforts at

nap time (a blanket or sleep sack, soother or no soother, etc.). She stated in her interview that some children prefer to be rocked in the rocking chair before being transferred to their crib to sleep and others prefer to fall asleep in their cribs on their own or by having the backs rubbed, and so on. Maureen does her best to understand and respect each child's cues that communicate to her the way they prefer to fall asleep (for instance, with or without an educator's support).

Observing and Responding to Infants' Interests

Maureen talked in her interview about the importance observing the infants in her care to learn about their interests, which leads her to reflect on how she can support their explorations and learning. She uses her observations to provide inviting materials and experiences for infants that are based on their interests. She described how she and her colleagues "rotate" materials based on the explorations they observe the children engaging in. By thinking intentionally about the materials she offers to the children, Maureen is able to support infants in actively exploring their environment and their inquiries.

Similar to the way the amount of open space in Maureen's environment aids in promoting respectful interactions between infants and educators, it also supports her and her colleagues in observing the children and their inquiries and responding authentically. As mentioned above, inside and outside the large furniture items such as shelves, outside climbers, picnic tables, and so on are mainly placed against the edges of each space, leaving large amounts of open floor or ground space available. Inside, the items that are arranged closer to the centre of the room (soft foam mats, a fabric tunnel, ride-on toys, a large exercise ball, etc.) are mostly lightweight and easy to move around by adults and even children as needed or desired; outside, the centre of the play area is mainly free from large or heavy obstacles leaving ample open space. This open and accessible space allows freedom of movement for both infants and educators both inside and outside, and makes it easier for Maureen and her colleagues to observe the children both up close (as participant observers) and from farther away (as non-participant observers). Having the larger furniture set up around the edge of the space, rather than throughout the middle of the

space, could provide greater visibility for educators, allowing them to see around the room from a variety of vantage points. This in turn will make it easier for the educators to learn about the children's explorations as they take place around the environment, and to build deeper and more meaningful ideas about the ways they can support and scaffold these inquiries. The infants would also experience freedom and ease of movement in this environment, which could allow them to engage in deeper and longer explorations as they are not hindered by many obstacles in the room that could reduce their ability to see and access materials as well as engage in the kinds gross motor explorations that are so important for this age group (crawling, climbing, learning to walk, using ride-on toys, rolling balls, etc,). These meaningful explorations and the educators' ability to observe and respond to them would help to promote active exploration and decision making in this environment.

Another way Maureen strives to support infants' interests through her observations of their play involves ensuring they have access to a variety of materials that are thoughtfully chosen by the educators based on their observations of the children's current interests, and intentionally arranged on the shelves and around the environment. I can see many examples of this in her environment photos. Her shelves are not overcrowded; the materials on each shelf are spaced out and easily visible at the children's level. Her shelves contain a variety of materials, including traditional toys such as trucks and a bead maze, as well as many open-ended materials for the children to experiment with (large plastic spools, a wooden log piece, cardboard tubes, scarves, streamers, strings of beads, real pots and pans, etc.). The outside play area also contains a variety of materials, including ride-on toys, balls, and other traditional outside toys as well as open-ended items such as muffin tins, measuring cups, containers and buckets of varying sizes, and so on.

A third way the Maureen's environment supports the educators in observing and supporting the children's interests is visible in the photos showing the many materials that support climbing and gross motor exploration in the infant room. In her interview, Maureen

described the strong interest many of the infants in her room show in climbing. She and her colleagues have responded, as shown in the photos, by bringing a variety of mats of different shapes and sizes into the room that they and the children can move and arrange in different ways to promote climbing in safe ways (if the children fall they will have a soft landing on the mats beneath them). There are large folding foam gym mats that can be laid flat or folded to create different heights, small foam mats, a large foam block with two stairs on one side, a large foam ramp, and a large square foam block with an arch cut out of the bottom – infants could climb on top of this block or underneath, through the arch. The different sizes and heights of foam climbing mats and structures will allow infants of different ages and physical abilities to explore moving from one level to another in their own ways (e.g., younger infants crawling from the floor to a raised mat and older infants climbing from the floor or a mat to the top of the large foam ramp or arch block). The foldable gym mats allow the educators to make these mats higher or lower to scaffold the children's current physical abilities as needed. These varying types of mats that can be arranged in different ways and at different heights provide opportunities for risk taking and experimentation, allowing the infants in Maureen's care to actively explore and build on their gross motor explorations, problem solving skills, and more. They can learn to understand their own comfort levels with risk taking and physical tasks and make decisions about how and when to explore these materials at their own pace.

Several of Maureen's photos include invitations she and her colleagues have set up for the infants based on their understanding of the children's interests and to scaffold further inquiry. These invitations are provided at the children's level in visually appealing ways aimed at sparking the infants' curiosity and encouraging them to explore the materials offered. One invitation shown in one of Maureen's photos shows a large piece of paper taped to a child-sized table with a fabric-flowered lei on either side of the table and a small pile of crayons in the middle of the paper. Another photo shows several scarves woven between the openings in a round plastic laundry basket. A third photo shows some of the foam mats laid out in an

intentional way, with a flat gym mat on the floor with one end against the wall, then the foam arch block against the wall, flat side facing up. In front of the arch block are the foam stairs. Then there is a space and then there are two small flat semi-circle foam blocks placed one in front of the other on the gym mat. On top of the arch block, the two stairs, and each of the semi-circle mats is a different musical instrument (a xylophone, a maraca, or a toy piano). Another invitation consists of paper streamers and strings of beads brought hung from the ceiling almost to the floor, allowing the infants to touch and move through them. These invitations are all open-ended and allow the infants to use the materials in any ways they wish, promoting active exploration and decision making. As Maureen discussed in her interview, the educators take time to observe the children as they engage with these invitations to learn more about the children's inquiries and how the educators can support and scaffold the infants' learning.

Carly: "Trust and relationship…without that we have nothing"

In May 2022, I interviewed Carly about her image of the infant and her beliefs about the ways early childhood educators can support infants in being active participants and active decision makers in the childcare environment. After analyzing Carly's interview, three main themes emerged as being most relevant to her image of the infant. The first theme focused on the high value Carly places on relationships in her work with infants. The second theme involved the ways Carly uses her observations of the infants in her care to create a supportive "yes" environment that offers "opportunities" to promote child-led learning. The third theme related to Carly's belief that infants should have access to a variety of materials to promote a sense of "ownership" in choosing what materials they will use and how they will use them.

Interview

Theme One: Relationships

According to Carly, when infants first start in her care, "They have to gain trust and relationship and then we can go from there, but without that we have nothing". She expressed that building this relationship and trust with the infants in the beginning helps them feel

confident exploring the environment and actively participating in the program and routine each day: “I think in the beginning when they first come…it’s really important…to have the relationship, to have that trust. You know, ‘I can count on you’… ‘You are my answer’. And then they feel free”. Based on Carly’s experience and knowledge of infant development, when ECEs take the time to build meaningful relationships based on trust and respect with infants, these young children will feel secure exploring actively and independently away from the adult, but will also have the understanding that they can return to this educator for comfort and reassurance as needed:

> If they have a really good solid relationship…they won’t be seeking out attention…if they’re doing that, I know there’s something wrong…they’re not comfortable, they don’t feel that sense of trust. When they’re out and they’re able to explore and play and then once in a while they’re back and going ‘Hey! You’re there!’ and we can give each other a smile…we’re all good. And they go back to playing and they go back to learning, and I know – okay, we’re in a good relationship.

Carly also cautioned that nothing takes the place of or is more important than a strong relationship between ECE and infant:

> Doesn’t matter how wonderful your daycare is, how educated you are, if you don’t have…[relationships] you have nothing…I strongly believe that. So, that’s the first thing I always work on with my parents and with my kids that are in my daycare. That’s number one, before anything else.

One of the ways Carly builds trust with the infants in her care is to do her best to understand and respect these children’s choices and their right to make their own decisions. She explained that if a child has stopped eating, she will not just take their food away, but will ask them “Are you done? Are you not done”. She will then “look for that ‘Yes’ [head nod] or ‘No’ [head shake]”. She does this because she “respect[s] that they’re little human beings that have wants and not-wants”. Carly strives throughout her daily practice to let infants know that they

have choice and agency in their interactions with her and in the environment she and these young children share together.

Theme Two: Observing Infants to Create a Supportive "Yes" Environment

Carly described some of the ways she observes and thoughtfully responds to infants' inquiries by offering materials and experiences within her child care environment that support the children's active exploration and autonomy. As she explained throughout her interview, her infant environment changes and evolves continually in response to the children's interests, needs, and abilities:

> My role in supporting infants would be setting up the environment for success for them and their development…infants change every day, so as they change you have to change your environment…In my environment, I try to have more yes's and I try not to have many no's.

Carly does recognize that there are times when she needs to "put up boundaries" to help children make safe choices. She described an example of the types of boundaries she promotes with the children: "if someone's climbing on a table and I'm changing a diaper…I'm going to be like 'Okay…we're not going to climb on a table right now". Carly strives to give infants as much freedom of choice as possible in their play, while also helping them learn how to be as safe as necessary while actively exploring their environment. She discussed how she balances providing children with opportunities to actively explore their interests while being mindful of their safety, saying:

> At the end of the day I have to reflect on 'Okay, this didn't work, that didn't work…how can I change my environment to help this child succeed? So, say, climbing, but the climbing is to a point where the child's always falling and getting injured, or it's getting stressful for me, I'm trying to change a diaper and they're doing a dance on the table and falling off and banging their head…I see they want to climb. I see they have that need, so how am I going to help them do that in a safe way. Are there times in the day I could set

something up that they could do lots of climbing?

To Carly, having a "yes" space – where infants can explore actively without overly controlling limits is vital – so she continuously reflects on ways she can achieve this goal. For Carly, the answer to children's interest in risky play is not simply "no". Instead, she reflects on how she can support their inquiries while minimizing (but not necessarily eliminating) risks, so that infants can learn to be active decision makers in safe ways. In order to authentically support infant's inquiries, Carly said:

> I do a lot of observation…I'll watch as they're playing. They're all very different. I might have one who just loves balls and that's all they want, is the balls. And someone else might be anything with wheels – anything that actually moves, it doesn't have to necessarily be a car. I mean, they'll move the table around and then I'm thinking, they really want to push things, they want to move their bodies and they want to push. But they also like that fine motor part with the cars. So, I make sure I have opportunities for that [and] I have opportunities for the balls for the other child.

She further explained this process, stating:

> So, I'm always observing to see what they really, you know, what their keen interest might be, and then going and offering, putting out different things that might have to do with that interest and then observing that. Are they interested in that? And then, as they become familiar with it, as…their development grown, then I'll add to that.

By observing the ways the infants explore the materials and the environment in her child care space, Carly is able respond by offering more and/or different materials and experiences that allow the children "opportunities" to actively explore their inquiries and engage in active decision making about what they want to explore and how they want to explore it.

Carly emphasized the importance of promoting child-led exploration with infants. She described an experience she engaged in with the infants after observing them spending a lot of time rolling cars across the floor. She responded by using a piece of wood to make a ramp and

rolling a car down the ramp one time. She said the infants seemed immediately intrigued and she allowed them to explore this new experience in whatever ways they liked: "Some wanted to go up the ramp. Some wanted to put their body on the ramp. There's no right or wrong way".

Carly views exploration and learning as happening not just during play, but during all interactions and aspects of the day. She stated "You have to offer opportunities and you have to offer experiences and experiences could be so different. It's not just about just play. You could take it into the snack area". She gave the following example: "With feeding and eating, they're doing all that on their own. If it's with their hands, if they're smearing it on them…I'll just clean it up". Carly believes in the value of allowing infants to explore their environment and experiences actively and in hands-on ways, in order to learn as much as they can about the world around them. She also shared an example of a way she promotes active decision making in infants during care routines, such as snack time. She explained:

> I do have an understanding that helps them…make that decision of whether to come to eat or not. If they don't want to eat, they can go. Like, I'll be like 'Oh, you don't want snack? You want to go play?' Then they can go do that. I'll ask them when I'm giving them food: 'Do you want a cracker? Do you want some blueberries?' And I'll look for their cues of whether they're 'yes' or 'no'.

Theme Three: Promoting "Ownership" Through Access to Open-Ended Materials

Throughout the interview, Carly discussed the ways she encourages infants to use materials in their own unique ways. She strives to help them understand that they have "ownership" and agency over the objects they use and how they use them. She explained:

> With my infants…I like for them to have some ownership in the classroom. I like them to be able to have access to things. There's no particular use for something…however the child wants to use it, it's sort of their ownership in that. It's like, you know, the car doesn't have to be a car, it could be a massage for your body, like however you want to use it.

She went on to express her belief that:

> To be active participants…[infants] need to have access to materials…materials should be open-ended, like giving infants the opportunity to decide how the materials will be used, like, am I going to put it in my mouth? Am I going to put it on my head? Am I going to put it on my friend's head?"

In terms of the materials she offers the children, Carly explained that the materials and the ways she offers them may depend on the age and development of her infants at any given time. She described, as an example, the heuristic baskets she creates for the children in her care, which contain a variety of different loose parts and every day items, such as hair rollers, napkin rings, wooden shapes, etc. She said that when exploring these materials, some infants"

> …might want to put them in their mouths and there might not be things that they can put in their mouth and I'll still offer it to them and I'll let them know that doesn't go in their mouth, I'm sorry, it's too small. But I'm right there watching them. They're looking at me, they get it…you've got to know your children…you've always got to know your kids. What they're capable of. I know that this kid's capable of managing that toy that some other educator might never give that child. But I know they're capable. I know he's capable of getting on the table and getting off the table, but I know that other child isn't…so you've got to know your kids".

By getting to know the infants in her care and building an understanding of where each child is currently in their abilities (e.g., with climbing or understanding simple explanations about safety), Carly knows which skills each child has developed and which skills she may need to support and scaffold them in learning with the materials provided. She discussed this belief that infants are capable of more than many adults realize when talking about her image of the infant: "I would say they're capable. We've got to give them more credit than we do. They're way more capable than people tend to think they are". She also expressed her belief that infants are "…way more curious and they're way more creative than we tend to think they are". For Carly,

educators can learn to trust infants to explore many different kinds of materials and experiences by getting to know them and supporting them through this process.

Photos of Environment

Carly emailed me 30 photographs of the infant environment at her early childhood setting, both the inside and outside areas. Carly has over 20 years of experience working with infants, and currently operates a childcare program in her home, where she works with infants as the sole ECE.

After analyzing Carly's photos, I emailed her 5 questions (e.g., how the children use certain materials or areas of the inside and outside environments), which she responded to. Carly's photos of her inside environment show two rooms connected by doors that can be open to give the children freedom of movement from room to room, or can be closed to limit access temporarily to one or two of the rooms if needed. Both rooms have a very home-like feel, with rugs, comfortable seating such as a rocking chair and a couch, and child-sized tables and shelves. The furniture is mostly natural wood or white in colour, helping to give these spaces a natural, calming feel.

In one room there is a forward-facing bookshelf with a rug in front of it, large cushions and stuffed animals surrounding it, and a rocking chair off to one side, creating a cozy reading and relaxation area. Nearby, more books are accessible in a wooden magazine rack (as Carly described in her interview. Across the room stands a chalkboard easel with large sidewalk chalk in the attached tray. There are three road mat rugs on the floor in this room – one is a city scape, one is a jungle scape, and one is a river/forest scape. There are two shelves in this space, each with four compartments that contain toys and materials the children can access whenever they like. As Carly discussed in her interview, she continuously observes and reflects on the children's explorations by asking herself questions such as: "Are they able to access things they need on their own? How are they accessing it?". She further explained that she adds to and/or changes these materials as the infants' interests change and as they develop: "I'm always trying

to look at what's working, what's not working, and then we make changes that go about in regards to that". One shelf contains four wooden cars, four plastic vehicles (two cars and two helicopters) and a plastic person, a set of square wooden alphabet blocks in a wooden tray, and an invitation consisting of a book about farm animals, six wood cookies stacked in three piles of two, and four plastic farm animals (one on each pile of wood cookies, and one on the shelf between two set of wood cookies). On top of this shelf is a square wooden basket with a handle. The other shelf in this space contains a set of wooden nesting blocks and wooden farm animals and people, a plastic bucket surrounded by five "peek-a-blocks" (clear plastic blocks that each contain a different object, such as a small animal), a container of mega blocks, and a wicker basket with a handle. On top of this shelf is a wooden container filled with wooden spoons. On each side of this container is a small (hand-sized) woven basket with a lid.

In the adjoining room, there are two rugs – one with a shaggy texture and one with a hopscotch design printed on it. There is a small child-sized table in the centre of the large shaggy carpet and a couch against the wall to one side of this carpet. The couch has soft cushions and a blanket on it. On another wall is a long shelf with materials accessible at the children's level, including five large dinosaurs, a book with a picture of a bear and a child dancing on the cover and a stuffed bear beside the book, a basket of wooden square blocks, a basket of multi-coloured round plastic links that connect to one another (similar to curtain rings), a large bead maze, and a large wooden activity cube. On top of this shelf are three books, a globe, and a small woven basket. On the floor to one side of this shelf are two plastic popper push toys (with balls inside that pop and make noise when the toy is pushed across the floor). On the other side of this shelf is a wooden spool that has been repurposed as a table. On top of this table there is a plastic barn with several plastic farm animals, two plastic people, and a plastic car one of the people can fit into. On the bottom of the spool table is a book about farm animals called "Little Blue Truck". On the wall behind this area are five photographs of different farm animals – a duck, a pig, a horse, sheep, cows, and a chicken. There is a small

carpet underneath the spool table.

Above this shelf is a large window that allows natural light into the room. Below the window is a wooden wall shelf on which sit a plant, a set of wooden maracas, a wooden bowl, a set of books held between two bookends in the shape of sailboats, a CD player, and a lamp. Above the window is a wall shelf which Carly uses for storing materials. Suspended from this shelf are two tree branches on which she has hung a number of interesting items: a wooden bird house, a dream catcher, two cardinal decorations, a small hedgehog figure, and a windchime that consists of a small piece of string or rope with a cat, a bird, a leaf, and a bell on the bottom. Hanging from the ceiling beside this display is another branch, on which are a few decorations, including an owl, a bird, a hedgehog, and a wooden tree. These materials help to give the room an intentional feel, that the materials offered and displayed are done so with purpose and meaning. Carly explained in her interview that being intentional about the materials she places in and around her environment is done to "spark their curiosity". She believes it is important for infants to "have interesting things" to explore and to capture their "wonder" and interest.

Against the next wall is a tall cupboard. Attached to the outside of the cupboard doors, at the children's level, there is a metal baking tray with 8 animal magnets on it and a wooden coat hook with four wooden hooks on it and wooden curtain rings hung over the hooks that children can stack on them. Next to this cupboard is a large exercise ball and beside that is a small change table with two shelves underneath. These shelves contain books, a stuffed bear, a sensory bottle, and a wooden puzzle. Carly also sent me a photo of a set of musical instruments made accessible on the lower shelf of the change table at another time, as an example of how she changes materials based on the children's inquiries and what she thinks they might be intrigued by. These musical instruments include two xylophones, a drum, a tambourine, and three round boxes with lids. On the other side of the room is a large structure with a sheet draped over it. When I asked Carly about this, she told me:

We were using it as a quiet space where we had our library books, however the

children could use it or change it in any way (either using their imagination and ideas or the younger ones sometimes want to take it all apart and drag the blanket or sheet around.

Carly's outside environment has two areas: a large deck and a large grassy/dirt area below. She explained in her interview that when the infants in her care are younger and not walking yet or putting items in their mouths often, she tends to spend more outside time with them on the deck, as it is easier to see what they are using and limit any potential choking hazards they may encounter (e.g., rocks, small sticks). Carly begins to take the children down to the grassy area more frequently as they grow and become more mobile. She also stated that as they grow, although they may still sometimes mouth objects, "they also are stopping and looking, and looking at me, and then I'll be like "Oh yeah, I don't think that's a good idea to put in your mouth".

On the deck, there is another chalkboard easel with large chalk, a spray bottle with water inside, and a cloth. There are many options for sensory exploration on the deck as well. There is a water table with a watering can, a collection of sticks, and a set of four boats and three water animal toys (a crab, a turtle, and a fish). There is a large plastic storage tote with two trays laid across the top. One tray contains sand and tools such as spatulas and a wooden spoon. The other tray contains more kitchen tools the infants can use with the sand, including a strainer, another spatula, and another wooden spoon. Next to this tote is a child-sized picnic table with a tray on top that contains a layer of sand. On the tray are several sticks the children can use to explore the sand if they wish. Beside the picnic table is a basket filled with more sticks. There is also a large spool table with wood cookies and plastic animals on top of it. In the centre opening of the spool is a large evergreen tree branch propped up. In front of the table is a smaller spool. Carly explained that the infants use this smaller one in different ways: "And some kids use the spool as a seat. Some kids use it as a table. And some kids use it to roll. The ones that like, that want that movement". There is also a tire on one side of the deck with several large sticks inside.

The grassy space contains a great deal of open space where the infants in Carly's care can

move around and explore. She keeps the materials offered in this space simple and minimal so that the children are also encouraged to explore nature itself. She explained in her interview: when we go out into our big yard, we don't really put a whole bunch of toys [out] and they are just entertained". In this area, there is a large wooden spool table with two tree stump pieces the size of small stools on one side. On the bottom of the table are a collection of wood cookies. On top of the table is a wooden bowl with pine cones and flowers inside, a round basket filled with rocks, and two round plastic scrub brushes. Nearby, at the back of this play space are several wooden log pieces, a pile of sticks, and a large evergreen branch. Beside these is a tire, and beyond the tire is a plastic slide with a climber. Next to this slide are two hula hoops laid out side by side on the ground with a plastic slide (no climber attached) laid flat on the grass in line with them.

On the opposite side of this play space there is a lattice-style wooden fence. Attached to one area of the fence are two metal buckets, each with a set of large plastic alphabet letters in them. Beside these buckets is a, propped up against the fence is a long wooden board with four reusable muffin cups nailed into it. Out of curiosity, I asked Carly how the children have been using this and she explained:

> The muffin cups can turn, they liked to turn them, this is a loose part so they would sometimes put it flat on a surface and put sand or rocks in the cups...younger children would carry it or drag it from one place to another. One child collected acorns in them while another child would take the acorns out.

Beside the muffin cup board there is a long wooden planter box on the ground with dirt inside, as well as plants, small plastic shovels, and plastic containers.

Connections Between Carly's Image of the Infant and Her Infant Environment

I can see many examples in Carly's photos of the ways her image of the infant and the themes she discussed in her interview are reflected in her indoor and outdoor infant environments. I will discuss the connections between her interview and environment photos in

this section.

Relationships

In Carly's interview, she described relationships and as being the most important and fundamental aspect of her work with infants. She explained that to fully support infants in learning and exploring, an educator first needs to build mutual trust with these children. Through this mutual trust and reciprocal relationship, Carly believes that Early Childhood Educators can support infants in learning to trust themselves and grow confident in their ability to actively participate and make decisions in their environment.

One way that Carly's environment helps her build trusting relationships with the infants in her care can be seen in the home-like spaces shown in her photos. For example, Carly has created a large reading/cozy area in her indoor environment that contains a large wooden rocking chair lined with cushions and a quilt. On the floor beside this rocking chair are a rug and two cushions. Against the wall, on one side of the rug is a large forward-facing bookshelf (made of dark wood and beige fabric). There are books on the bookshelf and in a wooden magazine rack beside the bookshelf. There are three plush animals in this area as well (a large monkey sitting on the floor against the wall and an elephant and dog draped over the back of the bookshelf).

Other areas of Carly's indoor environment also contain furniture and materials that promote a cozy, home-like atmosphere for children and adults. These include multiple rugs and carpets on the floor throughout her space and a large futon couch in one of her rooms. Many of the play materials, such as blocks or links the children can build and create with, are stored in baskets at the children's level. The walls are painted in light (light yellow and light green) and the shelves, tables, and other furniture are either white, light or dark natural wood, or neutral shades. Some walls contain paintings, photographs of farm animals that support a current interest among the infants in Carly's care, and a large map of the world. These home-like aspects that Carly has facilitated in her indoor environment help to create a calming and inviting atmosphere. Her indoor space would likely contain similar items that infants would see and use

in their own homes (couches, rugs, art on the walls, etc.), which may help these children feel more comfortable engaging in this space and trusting and building relationships with Carly as their caregiver when they are new to her program.

Also visible on one of Carly's walls and on one cupboard are framed quotes and images related to children and early childhood education that Carly has put together because they are meaningful to her practice. After viewing her photos, I emailed her to ask for more information about these quotes and images and she explained that "These frames contain inspiration for educators, families and children as we all need some inspiration in this field". One frame includes the question "Is there a teacher who changed your life?', along with an image of a child doing a cartwheel in a field of daisies. Also included in this frame are the quotes "Every kid can be a success story" and "What is life? It is the flash of a firefly in the night. It is the breath of a buffalo in the wintertime. It is the little shadow which runs across the grass and loses itself in the sunlight". The latter quote was spoken by Chief Crowfoot in 1890 (Moon Stumpff, 1999, p. 75). Another frame contains the phrase "Chase your dreams, you may be surprised by where they lead you" and an image containing a child climbing a tree with vines on it. The following quote is placed below this image:

> What might my life be like were I to give in to the rhythms of my own ragged dance? Like this, I imagine, walking down the trail, past grapevines and winecups and huisache blooming in the sun. Just like this attentiveness, this pleasure, this being present to the world. (Hanson, 2004, p. 13)

By sharing her passion for lifelong and joyful learning as expressed in these framed "inspirations", Carly can share her passion with the children's families see her as a trustworthy educator who truly wants to support their children's well-being. When the infants observe that their family members showing trust in Carly, this may help these children feel safe in her care as well.

Observing Infants to Create a Supportive "Yes" Environment

In both her inside and outside spaces, she strives to offer infants "opportunities and an environment that is set up to discover and explore what interests them". She offers a mix of traditional toys and multiple loose parts, and supports infants in learning to explore materials that may be considered "risky" for this age group (for example, the hair rollers that Carly mentioned in her interview or rocks the children may find and explore outside). She believes that infants can learn to use these kinds of materials safely with adult support. She advised in her interview that it is important for ECEs to: "Just know that they're capable and that you can offer them things that you might not think you can offer them". In her "yes environment", she provides materials and experiences that the children can access and explore freely.

One example of Carly's "yes" environment that is evident in her environment photos involves the various loose parts and real materials she makes accessible to the children. These items are easily visible to the infants and are stored and provided at their height on shelves and the floor. Some of these materials are available at all times to the children, and some may be offered at times when Carly is confident she can observe their play and set safety boundaries (e.g., reminding children to keep smaller materials out of their mouths) as needed without distraction. For instance, she explained in her interview that there are some materials and experiences (e.g., climbing in certain areas of the room) that she may not allow the children to explore while she is engaged in a task, such as changing diapers, that may prevent her from being able to quickly respond if children need support or assistance. Carly uses her knowledge of the infants currently in her care and their individual capabilities to determine what materials she believes they can safely use and experiment with in ways that allow for active exploration and decision making while minimizing (but not eliminating) potential risks. Some of the potentially "risky" materials Carly offers the children in her indoor and outdoor environments, as can be seen in her environment photos, include sticks, rocks, heavy tree stumps and large wood cookies, rocks, and soil. These may be considered hazardous for infants due to the risk of them poking or hitting themselves or others with sticks, dropping the stumps or large wood cookies on

themselves or others, and ingesting the soil or getting it in their eyes. However, as Carly explains multiple times throughout her interview, she spends a great deal of time supporting the infants in learning to use these materials thoughtfully and safely, which helps to minimize these risks. Other potentially risky materials Carly offers include smaller items that may be considered dangerous due to posing a choking risk, such as acorns and beaded bracelets. As Carly discusses in her interview, by taking the time to build meaningful relationships with each child, she learns when the infants are capable of understanding her expectations around keeping small objects out of their mouths. She ensures that she is present and engaged with the infants while they explore these riskier materials so that she can observe their play and give reminders as needed to support their safety and help them learn to regulate understand and regulate their own boundaries and understanding of safety.

The quiet/cozy area Carly set up in her infant environment, which can be seen in one of her photos, provides a "yes" space for children to spend time relaxing in a calming space that provides refuge from areas of the environment where children may be engaged in more active, louder, and busier play. Quiet/cozy spaces like Carly's, which consists of a large sheet draped over a structure where children can look at books or simply enjoy some quiet, reflective time. This space provides an area that says "yes" to children's emotional regulation needs and their right to have time and space to themselves.

Outside, Carly has created two play areas. One is on her raised deck and the other is on the grassy space below the deck. Carly shared many photos of each outdoor space with me. Both areas contain a variety of natural materials and loose parts, as well as opportunities for sensory exploration and mark making. She explained in her interview that when her infants are younger and/or when she is first getting to know them and building trust and relationship with them, they play mainly on the deck when outside. As the infants grow older and more mobile (e.g., when they begin walking) and they build a stronger understanding of her expectations related to safety and well-being (e.g., knowing it is not safe to put small objects like pebbles or

wood chips in their mouths), she begins to take them down to the open, grassy area to explore.

On the deck, there are many opportunities to explore sensory experiences and mark making using natural and real materials. These include containers of sand with wooden and metal kitchen utensils (wooden spoons, spatulas, strainers, etc.) and trays of sand with a sticks to invite children to draw or make marks in the sand using the sticks. There is also an easel with chalk and a spray bottle and cloth the children can use to clean the chalk from the easel if they wish. These experiences provide opportunities for the children to actively explore real materials in a "yes" environment. In the centre of a large round wooden spool being used as a table on the deck, Carly has placed a large evergreen branch, which stands up like a tree. This branch is large enough and stands tall enough that it looks like a small tree and allows the infants to explore an element of nature on the deck that they might not otherwise be able to until they are ready to begin playing on the grassy area below. This opportunity provides another "yes" experience for the children in this play area.

In the grassy area, there are patches of gravel and wood chips the infants can explore while Carly observes and engages with them. There are more large evergreen branches around the edges of this play space that the children can explore and move around if they wish. Baskets of pine cones and larger rocks sit on another wooden spool being used as a table. While there are many potentially "risky" materials, invitations, and experiences offered in Carly's indoor and outdoor environments, these all seem to be thoughtfully arranged and presented to the children in her environment. Her clear intentionality in choosing and displaying materials that is visible in her photos and her explanations in her interview of how she observes and sets thoughtful boundaries as needed based on her knowledge of the children show that she strives in many ways to create a meaningful "yes" environment for the children in her care.

Promoting "Ownership" Through Access to Open-Ended Materials

For Carly, it is important for infants to have access to a wide variety of open-ended materials to promote their independent learning. She explained in her interview: "If you

have…[materials] at their level, where they could choose what they're going to play with, what they're going to explore, that would help make them good decision makers". Offering open-ended materials that help children develop confidence in themselves as active decision makers supports Carly in promoting a sense of ownership among infants over their own play. Carly can learn about the infants' inquiries through observing the ownership they take on and the decisions they make in their explorations of open-ended materials, which will help her continue to offer loose parts and other items to support and scaffold infants' learning and discoveries.

One way Carly offers open-ended materials to support infants' ownership and active decision-making during play is through the creation of heuristic baskets, which are baskets or containers "…filled with natural objects that were picked with sensory interest in mind for babies to explore" (Shin, 2021, p. 3). According to Shin (2021), "sensory objects…can be used in numerous ways and have the potential for creativity, imagination, and open-ended play…There is no 'right' or 'wrong' way to use…the materials" (p. 3). There are two heuristic baskets shown in Carly's photos. One contains a gourd, two large burgundy wooden wall hooks shaped like stars, wooden napkin rings, and different shades of wooden beads (light and dark wood) on string. The other basket contains one burgundy wooden wall hook shaped like a star, two wooden maracas painted blue with beach scenes on them, a metal curtain ring, a wooden napkin ring, a decorative twine ball, a blue wooden fish, a pine cone, and a number of green plastic shamrocks. These two collections of loose parts provide visually appealing objects that promote different types of sensory exploration (e.g., texture, sound, visual exploration of colours and patterns, etc.). The open-ended and intriguing nature of these materials encourages infants to feel that the have ownership and agency in their exploration of these items and supports them as active participants and active decision makers in this play.

Another example of open-ended materials that promote ownership in Carly's environment photos involves the recycled materials present in her indoor and outdoor spaces. Carly spoke to this practice and its importance to her in her interview, when she stated "We try

to reuse [materials]. We try to buy second hand". For instance, Carly has repurposed small and large wooden spools that were previously used to hold materials like wire or cable into tables throughout her indoor and outdoor spaces. Some of the smaller wooden spools are also used by the children to sit on or roll across the floor or ground. The infants play at these spool tables, which she also uses to set out invitations and provocations for the children. Other examples of recycled materials in Carly's environment include the magazine rack she bought from a thrift store to hold books in her cozy reading area, the baking sheet she has attached to a cupboard door at the children's level for the children to explore with magnets, and the wooden coat hooks that she has also attached to this cupboard where the children can stack and rearrange wooden curtain rings. Outside, Carly has placed a large wooden board on which she has screwed several reusable muffin cups. After looking at the photo of this creation, I emailed to ask her how the children interact with it, and she explained that:

> The muffin cups can turn, they liked to turn them, this is a loose part so they would sometimes put it flat on a surface and put sand or rocks in the cups. They would also bring it to the kitchen area. Younger children would carry it or drag it from one place to another. One child collected acorns in them while another child would take the acorns out.

There are also tires on the deck and the grassy areas outside for the children to explore, climb, and use as they desire. Each of these recycled and repurposed materials show children the versatility of everyday objects like these and model viewing their environment with creativity and resourcefulness. These open-ended recycled materials encourage the infants to experiment with different ways they can actively explore these items and make decisions as they do so.

Connecting Participants' Stories

The purpose of this research was to explore the image of the infant held by early childhood educators who work with this age group, and how they put this image into practice to support infants as active participants and active decision makers in their childcare environment.

Each participant's story was unique; they all have different backgrounds and experiences as ECEs who work with infants. Each participant has developed their own image of the infant, and holds their own beliefs about the ways they support infants as active participants and decision-makers in their environments. Although there are many distinctions between them, there are also shared themes that exist between these participants' stories. They share some similar values about infants' abilities and ways of learning and exploring their environment. In this section, I will discuss the ways these infant educators make these beliefs and shared themes visible in their indoor and outdoor environments. The first shared theme relates to the belief in the importance of empowering infants through building trust and relationship with them. The second shared theme involves "listening" and responding respectfully to infants' cues and communication. The third shared theme relates to the role of the educator in observing and supporting infants' inquiries and explorations.

Empowering Infants Through Trust and Relationship

Some of the ways that this research has demonstrated ways the environment can empower infants through trust and relationship include welcoming, homelike environments, cozy spaces that educators and children can share together, areas and materials that allow children to actively participate in routines, and photos and images that promote connection and relationship-building between children and educators.

Alyssa's environment provides these opportunities through the many home-like and calming aspects of her indoor space. Walls and furniture that are light, neutral colours, real plants, natural light that enters the room through large windows, and rugs in neutral tones all help to create a soothing, inviting atmosphere that contains many similar elements to what the infants would see and interact with in their homes. The cozy area Alyssa created for the infants in her care provides a quiet corner with soft seating (a crib mattress) where children can sit or lie down, look through books, and revisit one of their favourite stories (Brown Bear, Brown Bear, What Do You See?), the pages of which are arranged in order on the wall at their level. These

home-like, cozy, and peaceful aspects of Alyssa's environment can help the children feel comfortable and confident in their child care environment, and in their relationship with Alyssa. When they feel safer and more confident in their environment, infants will feel more comfortable actively participating and making decisions in that space.

The family photo attached to each child's crib, as seen in Alyssa's photos, also helps the infants feel secure, safe, and comfortable in their environment. Having access to these photos can help the children feel connected to their families while they are away from them at child care, which may help them feel more comfortable with Alyssa, and trusting that this environment is a safe space where they are empowered to actively participate and make decisions.

The sink on the change table, and the mirror on the wall nearby that the children can see themselves in while they are on top of this table, also promote relationship and trust between Alyssa and the infants in her care. The sink is accessible to the children, and as Alyssa stated in her interview, she supports and scaffolds the children in learning to wash their hands as independently as possible throughout their time in her room. The mirror helps the children build independence by allowing them to see what they are doing while they help Alyssa put diaper cream or sunscreen on their bodies. These materials allow the children to actively participate and make decisions during their care routines. Rather than doing tasks, such as diaper changes, "to" the children, Alyssa strives to carry out these tasks with the children, promoting trust and collaboration. The pull up bar on one wall, where infants can experiment with pulling their bodies to a standing position, also encourages the infants to engage in independent exploration. In her interview, Alyssa frequently discussed the value she places on her role in showing infants they have power and agency when they are with her during the day. These physical aspects of her infant room help make Alyssa's trust in the children visible and empowers the infants to trust themselves and their own capabilities during care routines and play.

Although the concept of relationship and trust between infants and educators was not one of Maureen's main themes in her interview, she did discuss the importance of building mutual

trust with infants, and her environment does reflect this value. For example, one way Maureen's indoor environment provides opportunities for empowering children through trust and relationship is through the quiet/cozy area that she and her colleagues have set up. This space consists of a sheet draped between two tables. Under this sheet, there is a foam mat on the floor, a large teddy bear, and several books. In her interview, Maureen discussed her belief that making her environment a "safe space" where children feel comfortable helps to build trust between her and them. When the children trust her and know that she has provided a space in the room where they can go to rest, relax, and feel calmed and soothed, this helps to build a positive relationship between her and the children. Through this mutual trust and relationship, the children can feel empowered to make decisions within their environment, including when they want or need a break from more active exploration by spending time in the quiet/cozy area she and her colleagues have provided.

Another way Maureen's environment empowers infants through trust and relationship relates to the stairs that are attached to the change table. These stairs allow the children to climb up to the change table with the educators' support. By providing these stairs, Maureen and her co-educators are showing the children that they trust them to test their own abilities, and that they see these children as capable of actively participating in their diapering routine. The children will learn to trust and feel confident in themselves and their own capabilities when their educators model this for them. When this self-trust and self-confidence become part of an infant's personal identity and sense of self then this may transfer to other areas of their daily lives. They may feel more confident trying new experiences, experimenting, and taking meaningful risks (e.g., experimenting with climbing, reaching for a toy, problem solving during play, initiating social interactions with educators and peers, and so on). Exploring these experiences and building on their capabilities in varying ways is empowering for these children as they learn that they can be active participants and decision makers in their child care settings.

For Carly, building a strong relationship based on mutual trust with the infants she works

with is also vital to helping them feel empowered in their play and during care routines. She believes that when the infants in her care trust her to be there for them, they will feel more confident actively exploring their environment and making decisions for themselves, from what and how much they want to eat to how they want to explore the materials and environment surrounding them. The home-like environment that Carly has created in her dayhome is one specific way she strives to empower the infants in her care. This environment, and the intention with which she has chosen materials and designed her spaces helps the children feel safe, secure, and welcomed. The inviting, calming, and home-like atmosphere of Carly's infant space can be seen in the light colours on her walls and the neutral shades of the shelves, tables, and other furniture. There are several rugs on her floors, as well as soft seating in the form of a couch and soft cushions on the floor. There are also a number of framed paintings, maps, and other pictures on her walls. These elements help to give her indoor spaces a welcoming and home-like environment through their calming colours, soft and cozy materials, and because the aspects of Carly's infant rooms described above are similar to the kinds of things the children may have in their own homes. Seeing rugs, soft seating, artwork on the walls, and other similarities between home and child care may help the infants feel more comfortable and confident in this child care space. When children feel relaxed in their environment, it may be easier for them to build trust and relationship with their educator, which can also help the children to feel comfortable actively exploring and making decisions in their environment.

Carly's indoor environment also has a quiet/cozy area, which consists of a large sheet spread over a structure where Carly says children can read books or enjoy some calm, quiet time. Like the quiet spaces in Alyssa's and Maureen's infant rooms, this part of Carly's environment supports the infants' understanding that they can choose when, where, and how they would like to play and spend their time while at child care, which promotes active decision making.

The images and quotes Carly has places on her walls and cupboard that are meaningful to her practice and philosophy are another way she promotes trust and relationship that can

empower infants as active explorers and discoverers. These quotes and images speak to Carly's belief in the value of free exploration and play for children and adults. They allow Carly to express some of her passion for lifelong, active learning, which she hopes will help inspire the children and families to value active exploration and learning as well. When children and families view these pieces Carly has put together, they are able to gain an understanding of her values and approach to early childhood education, which will help her build mutual trust and relationship with them. Families in particular may be comforted by these quotes and images; when families learn to trust Carly because they see her passion for supporting infants, their children will be more likely to trust Carly and feel comfortable with her as well. As Carly discussed in her interview, when she succeeds in building trust and relationship with the infants in her care, she is able to help empower them as active participants and decision makers in her program and environment.

Respectful "Listening" and Responding to Infants' Cues and Communication

Some of the ways that this research has demonstrated ways the environment can help educators listen and respond respectfully to infants' cues and communication are through the freedom of movement available in indoor and outdoor spaces and the design of care and play areas.

Alyssa's environment provides these opportunities through the amount of open space available in her indoor and outdoor environments. Inside, much of the larger furniture, such as shelving, tables, and chairs, are arranged around the edges of the room, leaving ample space for the children and Alyssa to move and engage. Outside, there is also a fair amount of space to move around freely. This room to move allows the children to actively explore their indoor and outdoor environments in many ways and allows Alyssa different opportunities to observe and respond to their cues and communication. Being able to move with ease around the environment allows Alyssa to switch between being a participant observer, as she interacts with the children, and a non-participant observer, during times when she wants to observe from a greater distance

to avoid interrupting or disturbing the children's play. As she discussed in her interview, Alyssa then uses her observations to make decisions about how to respond to the infants' inquiries, by adding or changing materials in the room or offering new experiences and activities for the children to explore. After responding in these ways, Alyssa then further observes the children to see how they interact with what she has offered. Through this process of observing, reflecting, responding, and observing and reflecting again, Alyssa strives to "listen" to infants' verbal and non-verbal communication, in order to understand what they are trying to tell her about their needs, wants, and ideas. By tuning in attentively to each child's cues during their play (e.g., how they use materials, which materials they use most often, etc.), she tries to understand what these cues mean for each infant. When she "listens" to the infants in this way, she promotes their confidence in further exploring their own ideas and abilities (whether they are a young infant first learning to grasp or move towards a toy, or an older infant learning to climb or stack a block tower). When infants feel seen, heard, and valued in this way, they will feel more comfortable making decisions and leading their own play.

Another way Alyssa's environment supports her in "listening" respectfully and responding to infants' cues and communication can be seen in the Brown Bear, Brown Bear pages she has posted on the wall at the children's level in the quiet/cozy area. As she explained in her interview, this documentation has been on this wall through many groups of infants. However, every time Alyssa thinks about replacing it with something different, she observes the children time interacting with and showing interest in this story in different ways (e.g., showing interest in the animals, colours, etc.). Through her observations of the infants, Alyssa is noticing and responding to their cues (the ways they engage with the story pages by pointing at them, naming the animals or repeating the animals' sounds, etc.). She bases her decision on whether to keep this documentation on the wall or remove it on how the children seem to feel about this piece, allowing her to respectfully respond to their needs, wants, and ideas. By following the infants' lead in this regard, Alyssa is respecting their right to actively engage with their

environment and to make decisions about the materials they would like to have access to and how they would like to use them.

Maureen also discussed the importance of "listening" to and responding respectfully to infant's cues and non-verbal communication in her interview. She firmly believes that if educators are observant and attentive, they will learn to understand what infants are trying to tell them, whether verbally or non-verbally. According to Maureen, infants need to feel heard and respected by adults in order to feel that they are safe and secure in their environment. I also saw examples of ways Maureen's environment supports the educators in respectfully "listening" and responding to infants' cues and communication. Specifically, one of the ways Maureen's environment supports this theme can be seen in the photos of her nap room. Here, Maureen and her colleagues have placed a rocking chair where they can sit while the infants are falling asleep. She explained in her interview that some infants like to be rocked to sleep in the rocking chair and then transferred to their crib. Other infants prefer to lie in their crib while an educator rubs their back. Some children seem confident falling asleep on their own and simply like to have an educator sitting close to their crib. Maureen takes the time to "listen to" and understand each child's cues and preferences at nap time and respects each child's choices during this part of the daily routine. The infants, in turn, learn that they can trust Maureen to "listen" to their cues and may feel more confident in their own decisions regarding their nap time needs because of this. This may help support the children in understanding that they can actively participate and make decisions during other care routines in general as well.

In her interview, Maureen explained that when the infants feel comfortable with her and her colleagues, they explore their environment and communicate their needs and wants more confidently. She gave examples of ways that listening to infants' non-verbal communication helps her respect their bodily autonomy (e.g., learning to recognize when a child's body language is telling her that they do not want to be touched or hugged) and support their social-emotional needs during play. Maureen also described in her interview another way that the

environment supports her in respectfully "listening" and responding to infants' cues and communication is through the quiet/cozy area she and her colleagues have created in their indoor space. Although this area has already been discussed in the section above (Empowering Infants Through Trust and Relationship), it is also relevant in this section. Having a space where infants can go when they are feeling overstimulated or overwhelmed, physically and/or emotionally, is one way Maureen attempts to "listen" to and support children's social-emotional cues. When the infants trust that Maureen will respect their social-emotional needs and the ways they communicate these, they feel more confident making decisions about when and how to seek comfort and calm, which may include choosing to spend time in their quiet/cozy space either by themselves or with an educator or peer.

Similar to Alyssa's environment, Maureen's indoor and outdoor spaces include a great deal of room for infants and adults to move around and explore. Much of the larger furniture inside and outside are arranged around the edges of Maureen's environments, which provides Maureen space to observe and learn to understand the infants' cues up close (while engaging with the children) and from farther away (to avoid interrupting the children's play and communication). When Maureen spends this time observing and getting to know the children's cues and ways of communicating she is "listening" to what they are showing her about their needs, wants, and ideas, whether they communicate these verbally or non-verbally.

Observing and Supporting Infants' Inquiries and Explorations

Some of the ways that this research has demonstrated ways the environment helps educators observe and support infants' inquiries and explorations are through invitations and provocations the educators offer the children, open-ended materials and experiences, opportunities for risky play, and "yes" environments.

Specifically, one way Alyssa's environment provides these opportunities is through the provocations she and the educators in her centre's other infant room offer the children based on their observations of the infants' inquiries. These provocations include real and open-ended

materials displayed on the children's level in intriguing and eye-catching ways that invite exploration and experimentation. One provocation shown in her photos includes a real, small metal teapot, two cups, and several reusable silicon muffin cups arranged in a circle on a child-sized table. These objects may look and feel similar to items that the children have seen or used in their own homes, making them even more inviting to explore in their play at child care. Another provocation Alyssa and her colleagues have created for the children consists of numerous mirror blocks arranged in an intentional way on top of two flat, rectangular mirrors on a child-sized table. These intriguing and aesthetically inviting materials and the design of this provocation engage the senses and may encourage children to explore these items in thoughtful and intentional ways. A third provocation involves a large toy tractor with a trailer attached that has several farm animal puppets inside (a cow, a duck, and a cat). This provocation was set up on a carpet on the floor of Alyssa's infant room in front of a large mirror on the wall. Alyssa explained during her interview that she encourages the infants to explore provocations in whatever ways they wish. Rather than attempting to direct their play, Alyssa instead observes how the children engage with these provocations and then, through reflecting on her observations, decides how she might respond to best support the children's inquiries (by offering more or different materials, providing the same materials set up in new or intriguing ways, etc.). By using open-ended materials arranged in ways that invite free and active exploration, these provocations offer many opportunities for infants to explore their own agency and make decisions about what to do with these items, how long to use them for, whether to add more objects to this play, and so on.

Another way Alyssa's environment provides opportunities for observing and supporting Infants' inquiries and explorations is through the loose parts and real materials that are easily accessible at the children's level (on shelves, on the floor, etc.), in both the indoor and outdoor spaces. Inside Alyssa's infant room, loose parts and other open-ended materials offered include bowls, cups, ladles, and purses and bags. Real materials she makes accessible inside for the

children include real keys on a toy key chain and a real set of wooden bongo drums. Outside, open ended and real materials consist of tree stumps of varying sizes, real pots and pans, and milk crates. These materials promote flexible, open ended, and active play which includes many opportunities for experimenting, problem solving, and critical thinking in infants; these opportunities all contribute to the process of active and confident decision making. By observing the children and all the ways they decide to explore these materials, Alyssa is able to reflect on new and diverse ways to offer similar experiences to the infants. This will help her to further support the children's growing understanding that they have the right to be active participants and active decision makers in their indoor and outdoor environments.

One way Maureen's environment provides opportunities to observe and support infants' inquiries through the provision of open-ended and real materials. Maureen's indoor and outdoor environments contain many loose parts, including large plastic spools, buckets and containers, strings of beads the children and educators explore together, scarves, and so on. Maureen's indoor and outdoor spaces also contain real materials that the children may see at home, such as real pots and pans, measuring cups, and muffin pans. These materials promote experimentation, problem solving, and imaginative play where the infants can actively engage with these items, test out their ideas and theories, and make decisions about how they will use these materials throughout their play. As Maureen discussed in her interview, she strives to observe the children's explorations as much as possible each day, so she can understand what they are curious about and what they want to learn. Open-ended and real materials provide infants with many opportunities to explore and develop their curiosities and interests. Observing the children engaging in these active explorations and making and testing decisions as they do so also provides rich opportunities for Maureen to build her understanding of the children's inquiries and how she can support these.

Another way Maureen's environment provides the opportunity for educators to observe and support infants' explorations opportunities is through the invitations she and her colleagues

offer the children. There were several examples of invitations set up for the infants in Maureen's environment photos. One invitation consists of a large piece of paper taped to the top of a table with a multi-coloured flowered lei on each side and a small pile of crayons in the centre. Another invitation shown in Maureen's photos is made up of several long, patterned, and multi-coloured scarves woven through the openings in a round plastic laundry basket. A third invitation involves a collection of musical instruments (one wooden maraca, two toy pianos, and one xylophone) placed one by one on a series of foam mats of different heights. A fourth invitation consists of strings of beads and paper streamers hanging from the ceiling down to the infants' level. All of these invitations are set up in intentional, visually appealing ways that promote investigation, experimentation, and decision making. As Maureen stated in her interview, she encourages the infants to use these invitations in any ways they like as they actively explore them. She then takes time to observe and learn about the children's inquiries as they engage with these invitations, so that she can respond to their inquiries as authentically and supportively as possible.

Carly's environment includes opportunities for observing and supporting infants' inquiries through loose parts and real materials as well. One way that Carly provides opportunities for infants to explore different kinds of loose parts in open-ended ways is through the heuristic baskets she creates for the children in her care. These heuristic baskets include materials such as wooden and metal napkin rings, wooden shapes such as fish and stars, wooden beads on string, wooden maracas, natural materials such as gourds and pine cones, etc. They are offered on the children's level (on the floor or a child-sized table) and the children are free to explore them in any way they choose. There are many other loose parts accessible to the infants throughout Carly's indoor and outdoor environments, such as wooden tree cookies and stumps, sticks, rocks, buckets and containers, and small round boxes and baskets with lids. Real materials similar to what the infants may have at home that are offered in Carly's environment are wooden spoons, spatulas, strainers, bowl, silicon muffin cups, bowls, and so on. Recycled

items are another type of material Carly uses in her indoor and outdoor spaces. These include large wooden spools that are used for tables and small wooden spools that the children can choose to sit on or play with, a wooden magazine rack where books are accessible to the children, tires, and wooden curtain rings the children can stack on wooden coat hooks or use in other ways of their choosing. These materials all invite open ended, process-driven play and exploration, wherein infants are active participants who have the opportunity to make many decisions as they use these materials to experiment, problem solve, create, and discover. Carly spends as much time as she can observing the infants' explorations of these items and uses her observations to further support and scaffold the children's inquiries, and promote their active participation and decision-making during play.

Throughout her interview, Carly discussed her passion for providing a "yes" environment for the children in her care. Through the myriad of loose parts, recycled items, and real, everyday materials she offers the infants, Carly strives to provide an environment where infants can actively explore and make decisions about how they want to use materials and engage in experiences. She explains in her interview that although there are boundaries she needs to develop with the children to help ensure their safety and well-being, she also wants them to feel free to actively participate in and learn from all aspects of their day through having an environment where the items available at the children's level are safe for them to use. Through the relationships she builds with each infant, she gets to know their individual ways of interacting with the environment and learns when she can trust them to understand her boundaries around safety (e.g., understanding that she will not let them put certain items, such as smaller items like rocks or hair curlers, in their mouths). Through her "yes" environment, Carly strives to promote risky play opportunities that minimize hazards but do not necessarily eliminate them completely. In this way, infants can learn to think critically about materials and experiences and make their own decisions about what and how to explore while also thinking about keeping themselves safe. The photos of Carly's indoor and outdoor spaces show that one

way these "yes" environments promote active inquiry and decision making is through the "risky" materials and experiences she provides. These include small and large sticks, tree branches, rocks, heavy tree stumps, large wood cookies, soil, acorns, and wooden beads on string. These materials may be thought of as risky due to being heavy (posing a risk of the children dropping or rolling them on themselves or others), being small enough to pose choking hazards, posing a risk of infants poking or hitting themselves or each other (e.g., with the sticks or branches), or being considered dangerous if ingested or rubbed in the eyes (e.g., soil). Carly's ongoing observation and support of the children in learning to use these materials safely allows her to build trust in the infants' abilities to begin to make decisions about their own safety and well-being. By supporting infants' active participation and decision making in their "yes" environment, Carly is able to support their inquiries and offer important opportunities for risky play when they are in her care.

Interestingly, although Alyssa and Maureen did not specifically discuss "yes" environments in their interviews (Alyssa did explore the importance of infants' engaging in risky play but did not use the term "yes" environment), both of these educators also provide materials and experiences that promote this type of environment in similar ways to Carly. Alyssa has large wooden tree stumps and large metal pots and pans outside for the infants to explore and transport as they choose, which may pose a risk of injury to children if they were to drop one of these items on themselves or a peer. Like Carly, Alyssa spoke in her interview about the importance of supporting infants in taking risks and experimenting with their own capabilities, as she observes and scaffolds their inquiries. Maureen's environment includes strings of beads, which could pose choking hazards (a risk which is mitigated by she and her colleagues observing and exploring these items with the children) and large pots and pans similar to the ones in Alyssa's environment. In her interview, Maureen also discussed her belief that infant educators should be tuned in to the infants in their care. Maureen spends as much of the day as possible on the children's level, observing, interacting, and supporting their inquiries and risky play. For all

three of these educators, offering opportunities for risky play in an environment where children have freedom to actively explore and make decisions (with support from educators as needed) seems to be valued and supported.

Researcher Reflections

Throughout the process of interviewing participants, viewing their environment photos, and sending them my follow up questions about their photos, I have been able to deepen my understanding of the ways these three educators support infants as active decision makers in their early learning environments. The follow up questions I emailed each participant after viewing their environment photographs were aimed at helping me to better understand and analyze the connections between their image of the infant that they communicated during their interviews and the ways they make this image visible in their child care spaces. The data I collected from these sources (interviews, photos, and follow up questions) revealed some surprising and inspiring findings for me.

I was surprised and delighted by the capable image of the child held by each participant. I have spoken with many people, both outside and within the field of early childhood education, who believe infants to be passive, dependent on adults, and incapable of problem solving, questioning, and expressing their ideas and interests. Through my own work with this age group, I have ardently come to believe that infants are in fact extremely capable, active explorers and inquirers who can and do make many decisions for themselves. I believe that the role of the infant educator is not to control or do everything for these young children, but instead to support and empower them. Before beginning this research, I was not sure what my findings would be. However, all three of the educators I interviewed described infants as being extremely capable of exploring, discovering, actively participating and making decisions throughout all aspects of their day, especially when supported by engaged and present caregivers. These participants passionately discussed infant's abilities to actively explore their environments, experiment with feeding themselves, participate during diaper changes, initiate meaningful interactions with

others, problem solve, and much more. Their environment photos also made visible their capable image of an infant in many ways, including having materials and furniture accessible at the children's level, diaper change areas designed specifically to promote infants' active participation in this routine, a variety of real and open ended materials available to promote active exploration, creativity, and problem solving, and indoor and outdoor spaces designed to allow for freedom of movement between play areas (which helps to support active play, decision making, and opportunities for positive interactions and relationships).

I was also surprised by the number and variety of loose parts and real materials these participants make accessible every day for the infants they work with. In my own professional experience, I have heard educators and other adults express that they struggle to find loose parts they can use with infants, as they worry about the safety of these items for children of this age group. However, all three of these educators have demonstrated through this research that by recognizing infants' capabilities and building trust and respect with them, these participants can support these young children in learning to use many different kinds of loose parts and real materials competently and safely. Risky play can be perceived as an experience that infants are too young to participate in, or not yet capable of engaging in. Alyssa, Maureen, and Carly have all described in their interviews and shown through their photos how they support infants in exploring risky play opportunities that promote active participation and decision making.

Conclusion

When I began this process, I was intrigued to learn about the ways Early Childhood Educators who work with infants support these young children's agency and autonomy in their environments. Having worked with children under two years of age for more than 8 years, I am extremely passionate myself about empowering infants as active participants. Before beginning this research, I wasn't certain whether I would find other infant educators who felt the same way as I do about infants' abilities. I was awed and inspired however by the dedication each of the

participants showed to recognizing infants' abilities and empowering them as capable, competent, and creative humans who can communicate their ideas and inquiries effectively and lead their own learning when empowered to do so by the adults around them.

Limitations

The small sample size of this study may reduce generalizability of the results obtained, however generalizability was not a key goal of this research. It is possible my experience as an infant educator has influenced how I interpreted the data, however I did everything I could to reflect on my possible biases throughout the research process and prevent them from impacting my analysis. The audio recording of interviews may have caused some participants to feel nervous and possibly less open in their responses. I did my best to counteract this by establishing a positive rapport with each interviewee prior to and during the interview, and to reassure participants that there were no right or wrong answers and I was simply looking for their perspectives.

It is possible that participants may have staged or altered their environments in some way before taking photos of them, to show me what they thought I was looking for (as opposed to what their environment typically looks like). I have tried to mitigate this limitation by repeatedly reassuring participants prior to receiving the photos that I was not looking for a "perfect" or "ideal" environment, but rather the authentic spaces they share with the infants every day. I reassured them that their photos would not be judged or criticized in any way. I also tried to reduce the chances of this occurring by analyzing the photos based on a wide range of criteria. Participants were not aware of all the criteria I was looking for in their photos, and they likely did not have time to make a great deal of changes in the short span of time I am asking them to email their photos to me (within 24 hours).

Implications and Future Research

My goal with this research, as a critical ethnography, was to demonstrate the ways Early Childhood Educators can support infants in learning their own capabilities and becoming active

participants and decision-makers in the childcare environment. The infant educators who participated in this study have clearly and profoundly communicated the ways they see and promote these abilities in infants. In their interviews, they passionately expressed their beliefs about the importance of giving infants power and autonomy to make their own choices and lead their own explorations. They discussed their focus on building relationships with infants based on mutual trust and respect and observing and responding thoughtfully to these children's inquiries in order to support infants' confidence and capabilities. They explored the value of respecting and responding sensitively to infants' verbal and non-verbal communication to help infants feel heard and valued as active participants and decision-makers. Their environment photos demonstrated the ways they put these beliefs into practice through the design of their spaces and the materials and experiences they make accessible to the children each day. My hope with this research is to spark conversations in the field of early childhood education and beyond about the importance of recognizing and advocating for infants' right to quality care and education, and sensitive, supportive educators. Infants and infant ECEs do not currently receive the respect and support they deserve in educational or political circles, or in society in general. This research was aimed at giving a voice to infant educators who believe that they and the infants they care for deserve more.

These findings could be useful in many ways and to many people. ECEs who work with infants may identify with the participants' stories and feel supported and validated in their beliefs about infants and their own practice. ECEs who work with this age group may also find themselves inspired by these participants' stories, and may gain new perspectives or insights into ways they can grow their image of the infant and promote infants' as capable and active participants and decision-makers.

Directors and other ECEs in administrative roles may find this research helpful in understanding the value of their infant programs and the educators in working them. These findings may inspire them to adapt the ways they support their infant programs and help the

educators grow and develop professionally in their abilities to empower and scaffold infants' as capable explorers and discoverers.

These findings could also help advocate for infants' right to quality childcare and respectful, responsive educators on an educational and political level, especially if ECEs, Directors, and even families of children in childcare feel inspired by this research to advocate within these systems for infants and their educators. Such advocacy could encourage colleges that offer Early Childhood Education courses to adapt their training programs to promote deeper understandings of what quality, responsive, and respectful infant care and education can look like. Policy makers may be encouraged to reflect on the ways legislation and regulations could be improved to support quality care and education for infants, and to support infant ECEs in providing responsive care and child-led learning experiences.

One idea for future research that could build off these findings would involve inviting participating infant educators to share their ideas and understandings about the ways their environments support infants' learning and development through the use of photos. In my study, participants took photos of their indoor and outdoor environments, emailed them to me, and then responded to any questions I had about their photos. In future research, participants could be asked to take photos of their environment and ascribe their own meaning to these photos through the lens of their image of the infant (e.g., how they believe each aspect of their environment that they choose to photograph supports their image of the infant). They would then communicate to the researcher(s) what each photo means and/or represents to them. Using photos in this way could give the participants greater autonomy over the photos they choose to take, and could provide the researcher(s) with deeper insight into participants' beliefs about their environments and what they value about them.

Another idea for future research could focus specifically on how educators support infants' active participation and child-led exploration outside, including developmentally appropriate risky play (e.g., climbing and/or using natural materials such as sticks, rocks). The

participants in my research shared photos of their outdoor environments and discussed the ways they promote infants' active exploration in these spaces. One participant discussed potential risk-taking through offering infants natural materials (e.g., sticks and rocks) that some adults may not feel confident allowing infants to explore. If future research were to examine the value of supporting risky play and active exploration outdoors with infants, this may offer further perspectives on these practices.

Future research could also explore the ways ECEs work with families to empower infants as active participants and decision-makers. As infants' primary attachment figures, parents/guardians are their first relationships, and first opportunities for support and empowerment. Researching Early Childhood Educators' perspectives on the ways they partner with families in supporting infants as active explorers could provide insight into the value of reciprocal and supportive relationships between families and educators for adults and infants.

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Appendix A

Letter of invitation & informed consent for Educators

Introduction

Hello, my name is Krista Ahearn, and I am a graduate student in the Child and Youth Study program at Mount Saint Vincent University, under the supervision of Dr. Christine McLean. I am conducting a research study exploring infant educators' philosophies and practices in their work with infants. The purpose of this research is to explore the ways early childhood educators support infant's learning and development in the classroom. My research question is: How does the 'image of an infant' held by Early Childhood Educators influence the decision-making opportunities made available for infants within an early learning environment?

I would like to invite you to participate in my research because I believe that you fulfill all of the participation requirements and this study would give you the opportunity to explore and share your experiences working with infants and the rewards and challenges you face in your work.

Recruitment Criteria

To participate in the study, you must be working as an early childhood educator with infants and will need to have at least three years of experience doing so, to ensure you are familiar with this age group's development. You need to have a diploma or degree in Early Childhood Education from a post-secondary institution, to further ensure that you are knowledgeable about child development and early learning in general.

Participant Requirements

If you choose to participate in my research, I will meet virtually with you to conduct an interview one-on-one with you for approximately 30 to 45 minutes. We will meet using Microsoft Teams.

After our interview, I will ask you to send me digital photographs and/or video of your classroom environment (learning and care areas) within the following 24 hours. There should

be no children or other adults in the photos, or identifying information about the children or other adults (e.g., visible names or faces). I will be looking to make connections between your beliefs about infants (your image of the infant) and the way these beliefs can be seen in your learning and care environments in your classroom (design, materials, etc.), to understand the ways you support infant decision making in your infant room.

Voluntary Participation

All participation in this research is voluntary. Your Director may have asked if you are interested in participating in my research, as I emailed them in an attempt to reach potential participants (infant educators). It is your choice, however, whether or not to participate in my research. Should you choose to participate, you will have the right to withdraw from this study at any time prior to the successful defense of this thesis. You have the right to not answer any question I ask during the interview. Should you choose to withdraw from this study at any time, I will remove all of the information collected from our interview from the data. I will remind you of your right to withdraw from this research before and after the interview.

Known Risks and Benefits

This study carries minimal risk to you, as a participant, as you will not be asked to disclose any private or personal information, only that which you would share ordinarily with other educators. There is a risk of experiencing slight embarrassment if you experience a disconnect between what you say (your philosophy) and what you do (your practice) in the classroom. However, if this happens it will provide an opportunity for you to reflect on your work and potentially grow in your ability to support infants' learning. This study will also help contribute to the information available to infant educators in general, which could be very helpful to your profession, as there are currently minimal resources available relating specifically to high quality education for children under two years of age.

Data Generation

All data generated for this research, including interviews, written notes, and contact information will be stored in password-protected files on a secure laptop. Only the committee and I will be able to access this information at any time. After the successful defence of this thesis, I will hold on to the data for five years, at which point it will be deleted. If this research leads to any further publications the data collected may be reviewed in the future.

Procedures for Confidentiality, Anonymity, and Privacy

I will make every effort to protect your confidentiality, as well as that of your employer and the children in your care. Only my committee and I will have access to the recorded interviews, transcripts, written notes, and any other data collected. This research will not be used to evaluate your job performance in any way, and your Director will not be given access to any information I gather during my research. I will not collect any identifying information about children or non-participant adults in the classroom. When writing in my thesis about my observations of your interactions with the children, I will use pseudonyms for the children, to protect their anonymity. I will not disclose any personal or identifying information about you that is unrelated to the research to anyone.

Dissemination

Information from this research will be published and/or presented to both academic and non-academic audiences. The results of this study will be published in a masters level thesis document. Once I have successfully completed and defended my research, an electronic copy of the thesis will be available at the MSVU library and/or the CYS office. I will also provide a summary report of the research to you.

REB Clearance

This research study has met the ethical standards of the Mount Saint Vincent University (University Research Ethics Board), protocol number 2021-107. If you have any questions regarding the way this research is being carried out and wish to speak with someone who is not directly involved in the study, please feel free to contact the Chair of the University Research Ethics Board c/o Research and International Office, at 902 457 6350 or research@msvu.ca.

Contact Information

If you have any questions, please feel free to email me at krista.ahearn@msvu.ca or call 902-476-0851. You can also contact my thesis supervisor, Dr. Christine McLean at Christine.McLean@ msvu.ca or by calling 902-457-5985.

Signing below indicates that I understand the above information and give my consent to participate in this study.

_____	_____
Participant's Signature	Date (day/month/year)
_____	_____
Researcher's Signature	Date (day/month/year)

Audio recording

Interviews will be audio recorded. Please select one of the following options.

I consent to the audio recording: Yes_____ No_____

_____	_____
Participant's Signature	Date (day/month/year)
_____	_____
Researcher's Signature	Date (day/month/year)

Information Letter for Directors

Introduction

Hello, my name is Krista Ahearn, and I am a graduate student in the Child and Youth Study program at Mount Saint Vincent University, under the supervision of Dr. Christine McLean. I am conducting a research study exploring infant educators' philosophies and practices in their work with infants. The purpose of this research is to explore the ways early childhood educators support infant's learning and development in the classroom. My research question is: How does the 'image of an infant' held by Early Childhood Educators influence the decision-making opportunities made available for infants within an early learning environment?

I am inviting Early Childhood Educators who work with infants to participate in my research as an opportunity to explore and share their experiences with and knowledge about their work with infants.

Research Description

My research will involve conducting one interview with each educator, conducted virtually through Microsoft Teams. After the interview, I will ask participants to send me digital photographs and/or videos of their infant room environment within the following 24 hours. There should be no children or other adults in the photos or videos, or identifying information about the children or other adults (e.g., visible names or faces). I will be looking to make connections between the educator's beliefs about infants (their image of the infant) and the way these beliefs can be seen in their learning and care environments in their classroom (design, materials, etc.), to understand the ways the educator supports infant decision making in their infant room.

Risks and Benefits

This study carries minimal risk to everyone involved, as educators will not be asked to disclose any private or personal information about themselves, their place of employment, or the children or families in their care. I am only looking for information which they would share

ordinarily with other educators or visitors to their classroom. This research will provide an opportunity for participants to reflect on their work and potentially grow in their ability to support infants' learning. This study will also help contribute to the information available to infant educators in general, which could be very helpful to this profession, as there are currently minimal resources available relating specifically to high quality education for children under two years of age.

Confidentiality

All data generated for this research, including interviews, written observations, and contact information will be stored in password-protected files on a secure laptop. Only the committee and I will be able to access this information at any time. After the successful defense of this thesis I will hold on to the data for five years, at which point it will be deleted. If this research leads to any further publications the data collected may be reviewed in the future.

I will make every effort to protect participants' confidentiality and anonymity, as well as that of their workplace, Director, and especially the children in their care. Only my committee and I will have access to the recorded interviews, transcripts, written notes, and any other data collected. I will not view any confidential documents or written/recorded information about any children or families. I will only look at general information that is available to anyone visiting the Centre.

Information from this research will be published and/or presented to both academic and non-academic audiences. The results of this study will be published in a masters level thesis document. Once I have successfully completed and defended my research, an electronic copy of the thesis will be available at the MSVU library and/or the CYS office. I will also provide a summary report of this research and my findings to participants.

This research study has met the ethical standards of the Mount Saint Vincent University (University Research Ethics Board), protocol number 2021-107. If you have any questions regarding the way this research is being carried out and wish to speak with someone who is not

directly involved in the study, please feel free to contact the Chair of the University Research Ethics Board c/o Research and International Office, at 902 457 6350 or research@msvu.ca.

If you have any questions, please feel free to email me at krista.ahearn@msvu.ca or call 902-476-0851. You can also contact my thesis supervisor, Dr. Christine McLean at Christine.McLean@ msvu.ca or by calling 902-457-5985.

Appendix B

Email to Directors

Hello,

My name is Krista Ahearn, and I am a graduate student in the Child and Youth Study program at Mount Saint Vincent University, under the supervision of Dr. Christine McLean. I am conducting a research study exploring infant educators' philosophies and practices in their work with infants. The purpose of this research is to explore the ways early childhood educators support infant's learning and development in the classroom. My research question is: How does the 'image of an infant' held by Early Childhood Educators influence the decision-making opportunities made available for infants within an early learning environment?

I am inviting Early Childhood Educators who currently work with infants to participate in my research as an opportunity to explore and share their experiences with and knowledge about their work with infants. Participation in this research is completely voluntary and up to the educator. I am writing to ask for your help with reaching out to infant educators at your centre who may be interested in participating in my research. I have attached a copy of the letter of consent for participants which describes this study in greater detail and I was wondering if you would mind sharing this letter with the infant educators at your centre. I have also attached an information letter for you that provides more information about the research I would be conducting with an Infant ECE at your centre (if you agree to let me do so).

If you have any questions about this research, please feel free to contact me at krista.ahearn@msvu.ca or my Supervisor, Dr. Christine McLean at Christine.McLean@msvu.ca. Thank you for your time.

Sincerely,

Krista Ahearn

Appendix C

Interview Protocol

I will review the consent process with them before we begin the interview, as well as at the end of the interview. I will attempt to gather their beliefs about infants and how these beliefs developed.
I will collect consent forms from participants during our first meeting and will give them a copy of the interview questions.
I will meet each participant virtually, through Microsoft Teams.
I will explain that participation in this research is voluntary, review the consent form, obtain verbal consent after doing so.
I will ask for consent to audio record our interview. I will turn on both audio recording devices and have my notebook and writing instruments ready.
I will begin asking my questions, which they will have received the week prior to the interview.
I will observe and listen as the participant responds to each question.
I will write down relevant information that may help support my later data analysis, such as my own reflections, ideas, and feelings as they occur in the interview process.
I will ask for clarification of any terms I do not understand. I will ask follow up questions to obtain relevant information that have not addressed in their initial responses to the interview questions.
After the questions are finished I will thank the educator for their participation. I will turn off the recorder.
I will review the fact that their participation is voluntary and go over the consent form with them again.
After each interview I will transcribe the audio recordings I have collected. I will check audio and written data for consistency, by listening to each audio recording while reading through the written transcripts, to discover and correct potential errors (Van Den Hoonaard, 2012, p. 92).
After completing each transcript I will delete the interview from the audio recorder.

Observation Protocol

After my interview with each participant concludes, I will ask him/her/them to send me photos and/or video of their infant room within 24 hours. They can send these to me through my MSVU email or OneDrive.

Once I have viewed these photos and/or videos, if I have any questions about what I see in them, I will email the participant for clarification.

In the photos and/or videos, I will be paying close attention to many aspects of the environment, including the following criteria:

-classroom design

-placement and set-up of learning and care areas

-number and variety of materials

-how materials are displayed and made accessible to children

-Opportunities for developmentally appropriate challenges and risk-taking

-Opportunities for independence in learning and care areas

Once all the data is collected, transcribed, and organized, I will begin coding it to identify potential themes that emerge and their possible connections to my research question. I will also draw from the framework of narrative analysis by relating the themes discovered through the coding process to the story of participants' beliefs about infant education and care (their image of the infant), and how these impact the ways they design their classrooms (e.g., materials accessible to the children, layout of care and learning areas, etc.).

Appendix D

Research Question:

How does the ‘image of an infant’ held by Early Childhood Educators influence the decision-making opportunities made available for infants within an early learning environment?

Appendix E

Interview Questions:

1. How would you describe your role as an infant educator? What is your role in supporting infants as active participants in the classroom?
2. For those people who do not spend a lot of time around infants, how would you describe to them the process of infant/adult communication? Can you give examples of infant/adult communication in your program?
3. How would you explain to others **what** infants learn while they are in your program? How would you explain to others **how** infants learn while they are in your program?
4. What do you find most rewarding about working with infants?
5. What do you find most challenging about working with infants?
6. Are you familiar with the term "Image of the Child"? If so, where have you heard it? How would you describe your image of the infant?
7. How would you describe your role as an infant educator? How do you think educators can best support infants' learning and development?
8. What do you feel infants in early childhood settings need from their educators? How do you think educators can best support infants' learning and development?
9. How do you think the environment in infant rooms can support infants in being active participants? How can the environment support infants in being active decision makers?