Co-construction of Pedagogical Documentation
By Children and Educators in Early Learning Environments

By

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Abstract
This qualitative, design-based research study aimed to examine the factors that influence and are influenced by the co-construction of pedagogical documentation by educators and children in early learning settings. Throughout a six-month study period, seven early childhood educators located at three early learning settings in Nova Scotia were asked to co-construct documentation with the children, by the children, and for the children. Using qualitative research methods, including interviews, questionnaires, site visits, document sampling and a child focus group, data were collected and then analyzed using a thematic analysis approach within a social constructivist research paradigm. Findings, which were organized within the themes of value and validation; reflection and relationships; and processes and practicalities, indicate that the factors involved in this co-construction process are complex and varied. The factors that influenced the co-construction process ranged from the practical considerations of time, setting, materials, and technical support to educator values, attitudes and beliefs about the involvement of children in the documentation process. Factors that were influenced by the process included the educator-child relationship; educator’s perception of children’s abilities to reflect and recall their experiences (metacognition); the inclusion of children’s voices as an element of intentional program planning, and parents’ understanding of how and what their child learns in a play-based setting.
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Prologue

I have been involved in the early childhood education sector for over three decades. Most of this time was spent in St. John’s, Newfoundland and Labrador, where I interacted with early childhood educators (ECEs) in a variety of capacities; working as a policy maker with the provincial government, registrar of certification with the provincial professional association, and an instructor in ECE post-secondary training. I have been involved and continue to be involved in several pan-Canadian initiatives including the Child Care Advocacy Association of Canada and the Child Care Human Resources Sector Council, the Canadian Association for Young Children, and the Early Childhood Education Faculty Forum, where I have the opportunity to interact and collaborate with leaders and practitioners in the ECE sector across Canada. After living in St. John’s for almost thirty years, I moved to Nova Scotia, where I am now connecting with a new group of early childhood educators and ECE students in my role as assistant professor in the faculty of Child and Youth Studies at Mount Saint Vincent University.

My interactions and conversations with my fellow ECEs have been rewarding, challenging and always thought-provoking. The same is true for my visits to child care centres and other types of early learning settings. I have seen respectful and responsive environments where educators interact with children in ways that enhance and underscore their capacity to be creative, competent participants in a well-designed, child-centred environment. I have seen educators who are at a loss in terms of how to deal with the many demands placed upon them to not only meet the needs of the children in their care but to do it in ways where curriculum is emergent, practice is reflective, learning strategies are individualized, activities are open-ended, time and resources are scarce and working conditions are not optimal.
Over the past thirty years, I have witnessed a significant evolution in the ECE field, as well. The image of the child is changing. Children are no longer viewed as innocents in need of care and guidance but as capable citizens with rights and responsibilities. Teacher-directed programs have given way to child-centred environments. The process of program planning has changed. Terminology has changed with phrases like ‘pedagogical leadership’, ‘authentic assessment’ ‘inquiry-based learning’ and ‘reconceptualizing childhood’ being added to the lexicon. We no longer speak of daycare centres that conjure up an image of a custodial approach to care but instead refer to early learning environments that place an emphasis on nurturing children intellectually and socially in addition to meeting their physical needs. Provincial and territorial early learning frameworks are being introduced that invite educators to consider children not solely from a developmental perspective but also from a sociocultural one - a perspective where adults and children are co-learners and children’s right to play, participate, communicate, and develop a sense of well-being and belonging is emphasized over their ability to meet specific, universal learning outcomes. In my opinion, these new developments have had a positive effect on educators’ ability to be responsive and reflective, and, in many cases, have resulted in higher quality early learning programs for young children.

However, because of these changes, there are additional expectations being placed on educators who may or may not have learned about the latest trends in early childhood education in their own post-secondary training and who may or may not have participated in professional development opportunities designed to introduce these many new developments. Keeping up with new ways of doing things is not easy. It requires effort, confidence, and a comfort with not always getting it ‘right’. It requires a supportive professional environment where educators can try and fail and try again. My motivation to conduct research on the topic of co-construction of
pedagogical documentation stems from a desire to help create these type of environments – ones where educators can step out of their comfort zone to try something new.

Pedagogical documentation, as described in the Reggio Emilia approach, is a relatively new practice in Canadian early childhood education settings and is one that has not always been embraced or understood by early childhood practitioners. During my career, I have observed a variety of factors that may account for a lack of uptake including inadequate pre-service and in-service training specific to pedagogical documentation, a shortage of examples of good quality pedagogical documentation to serve as models for practice, a hesitancy of making first attempts at documentation ‘public,’ not enough time or resources provided to educators for the purposes of creating documentation, and/or an unwillingness or sense of discomfort in trying something new.

I view the act of constructing pedagogical documentation as a possible entry point and a motivation for educators to become more reflective in their practice, which can, in turn, lead to a more responsive and higher quality early learning environment. Recognizing that there are barriers, perceived and actual, that block some educators from embracing this practice, I am interested in examining ways to encourage educators to work directly with children in the co-construction of pedagogical documentation, providing both parties with the opportunity to work together, creating an atmosphere that supports collaboration and reflection. Therefore, my interest in this research topic stems from the desire to take a closer look at personal, interpersonal, environmental, and systemic factors which either support or prevent the incorporation of pedagogical documentation into everyday practice.
Chapter One – Introduction

Background

The past decade has seen many changes in the field of early childhood education, including neuroscience research emphasizing the importance of brain development during the early years, the introduction and implementation of jurisdictional early learning frameworks, the merging of early childhood services with provincial departments of education, the introduction of full-day pre-kindergarten programs in several provinces and territories, and the recognition of the importance of play-based learning during the early years. These developments have shone a bright light on the important role of early childhood educators (ECEs) in terms of their ability to design and implement responsive, effective environments for young children. Educators are expected to not only ensure the health, safety, and well-being of children in their care, they are required to be reflective and innovative practitioners who are able to plan emergent curriculum based on observations of children’s individual strengths, interests, and needs, and then document the children’s learning in ways that are meaningful to a variety of audiences, including parents, educators, administrators, and children themselves. All of this is often done under circumstances that do not necessarily include paid planning time (Flanagan, Beach, & Varmuza, 2013) or meaningful professional development (Wong, 2009) and in a sector where required qualifications range from a 60-hour orientation course to an ECE two-year diploma, depending on local regulations and requirements.

Keeping these systemic constraints in mind, and in an effort to learn more about how early childhood educators can effectively engage in reflective and responsive practice with young children in early learning environments, I chose to focus on one element of practice,
pedagogical documentation, and examine what happens when educators are invited to create
documentation with children directly, to determine if this has an effect on the educators’ ability
to be reflective and intentional in their practice and, at the same time, make documentation a
more accessible tool to both educators and children. To that end, factors that both influence the
creation of this ‘co-constructed’ documentation and that were influenced by this co-constructive
process were examined.

My current understanding of pedagogical documentation is influenced greatly by
practices seen elsewhere, such as the learning stories described by Carr and Lee from New
Zealand (Carr & Lee, 2012), the documentation of long term projects as seen in the Project
Approach (Katz & Chard, 1988), and emergent curriculum, first described by Elizabeth Jones in
an adult-education class taught in Pacific Oaks College in California in the late 1960’s (Jones,
2012). For the most part; however, pedagogical documentation is seen as an innovative practice
that originated as one component of the educational approach applied in the infant-toddler and
preschools in the municipality of Reggio Emilia in Northern Italy. For the purposes of this
research study, the pedagogical documentation being discussed is influenced by and framed
within the Reggio Emilia approach.

The multi-faceted “Reggio Emilia Approach” which began shortly after World War II
under the leadership of Loris Malaguzzi, has influenced how many early childhood educators in
other countries, including Canada, view their own practice as they learn more about the
philosophy and practice of the Reggio Emilia preschools. The Reggio Emilia municipal
preschools have been described as ‘one of the most successful examples of radical or progressive
systems of education’ (Moss, 2012, p. 167). The introduction of pedagogical documentation as
standard practice in preschool settings is potentially one of the most influential characteristics of
this approach (Katz & Chard, 1996).
Much of what has been written about Reggio Emilia concentrates on the practical aspects of documentation, focusing on describing specifically how projects are completed and how documentation forms an integral part of the ongoing project work (Grieshaber & Hatch, 2003). However, perhaps one of the most significant influences that the educators of Reggio Emilia have had on the field of early childhood education, and one that is embodied in the Reggio practice of pedagogical documentation, is how the child is considered in the documentation process. Carlina Rinaldi, a prominent educator from Reggio Emilia emphasized that “Reggio Emilia is a pedagogy that considers the child an active subject with rights…a protagonist, collaborator, and communicator” (Rinaldi as quoted in Buldu, 2010, p. 1440). This belief in children as having a sense of agency influences how children’s activities are documented within the Reggio Emilia system, which views documentation as “…a standard part of the early childhood teaching practice, with its key function to provide children with a concrete and visible memory of what they said and learned in order to serve as a jumping-off point for next steps in learning” (Buldu, p. 1440, 2010). In this sense, documentation is written for a child audience and in collaboration with children. This democratic and participatory approach to documentation is evident in Sweden where the Stockholm project, beginning in 1988, used the Reggio Emilia experience as a model and inspiration to deconstruct and revise that country’s early childhood pedagogy (Dahlberg, Moss & Pence, 1999) and in New Zealand where the ECE curriculum, Te Whāriki, situates the child as citizen, and co-constructor of knowledge identity and culture (Mitchell & Carr, 2014). These approaches are in direct contrast to the experience of children in some other countries, such as Britain where research explored the experiences of 3-5-year-old children in the Early Years Foundation Stage (the early years curriculum used in England). This research suggests that “the documentation of children’s achievements in many English ECEC settings is predominantly constructed and aimed at adults” (Bath, p. 192, 2012).
Pedagogical documentation involves the combining of texts, photos, transcripts of conversations, audio tape, video, drawings, and other media to make learning visible to children, teachers, parents and the public. It serves as a “historical record of past events and provides us with ideas for future experiences as well as a means for sharing evidence with family members or others” (Bowne, et al., 2010, p. 49). Documentation typically includes samples of a child’s work at several different stages of completion; comments written by the teacher or other adults working with the children; transcriptions of children’s discussions, comments, and explanations of intentions about the activity; and, in some cases, comments made by parents (Katz & Chard, 1996). Parent comments are not necessarily a common element of pedagogical documentation; however, learning stories, as described by Carr, sometimes reserve a section for ‘Parent Voice’, inviting parents to add their reflection on the learning story once it has been developed by the educator (Carr, 2001). See Figure 1 for an illustration of pedagogical documentation that includes parent comments.

Constructing pedagogical documentation provides early childhood educators with the opportunity to reflect on children’s interests, questions, activities, strengths and needs and then plan accordingly and intentionally, using an emergent curriculum approach. In addition to this primary benefit, it provides visual evidence to parents and policy makers of how and what children are learning in early childhood settings. As well, pedagogical documentation, when displayed at children’s eye level or in an easily accessible portfolio format, can act as a learning provocation for children, providing them with a visual recollection of their own or other’s ideas and activities. Educators, for the most part, recognize the value in pedagogical documentation; however, they often cite difficulties in being able to produce quality documentation mostly due to time constraints or a lack of experience in knowing what to look for and how to best present the documentation (Kroeger & Cardy, 2006).
Building Obstacle Courses
(The Red Room Kids)

The children have been challenging themselves by navigating obstacles and experimenting with balance over the past few days.

Many attempts have been made to create a ‘high circus ladder’ that can be used to ‘cross the river’. There was lots of talk about crocodiles as well – which added to the danger of it all!

At first, Violet was reluctant to cross the river but with the encouragement of her friend, Suzelle, she carefully made her way across the entire ladder.

“I was scared but I went very slow. I’m happy that I didn’t fall in the river!” (Violet, age 3.6)

Figure 1: Illustration of Pedagogical Documentation Note: this is a depiction of pedagogical documentation for illustrative purposes, created by the researcher based on photos that were provided by one of the ECE participants during the course of the research study.

Parents – have you noticed our outdoor play?
Please feel free to add your comments here:

“I’m glad to see Violet being so brave. And I’m so happy that she has friends who help her along!”

“I’ve noticed that the kids are really enjoying being outside, even when it’s chilly out. They are getting really good at building these obstacle courses!”
Unlike other jurisdictions which prescribe pedagogical documentation as a regulated requirement in an early learning setting, e.g., the Swedish preschool curriculum (Elfström Pettersson, 2015a), Nova Scotia, (the jurisdiction in which this study is situated), similar to other Canadian provinces, does not require early childhood educators to produce examples of pedagogical documentation as a condition of licensing. However, with the introduction of early learning frameworks across Canada throughout the past several years, the documentation of children’s learning and experiences is quickly becoming an expected and accepted aspect of practice. There are several examples of individual early learning settings within this province that already incorporate pedagogical documentation into their programs, but, for the most part, ECEs currently have no extrinsic obligation to participate in this practice. Directors or owner/operators of child care centres are not always able or willing to provide staff members with the time or resources required to produce pedagogical documentation, perhaps because of the budget implications that such allowances would require. Costs incurred as the result of extra overtime for the creation of pedagogical documentation is a major consideration for most child care settings.

In Nova Scotia, child care is provided through licensed child care facilities and licensed family home child care agencies. The latest profile indicates that there are 391 licensed facilities throughout the province (Province of Nova Scotia, 2016, p. 3) and, as of November 2013, there were 2051 staff members employed in these facilities (Child Care Connections NS, 2014). Nova Scotia requires that two thirds of the staff members at every regulated child care centre have a minimum of Level I Classification which can be obtained through either a one-year ECE post-secondary certificate or completion of coursework and workplace training as specified in standards set by the Minister, including a 16-module early childhood education online orientation course. Level I Classification has also been granted through an equivalency process.
as per former Day Care Regulations (Nova Scotia Child Care Association, 2016, personal communication; Provincial consultant, Department of Education and Early Childhood Development, 2016, personal communication). The remaining one third of staff members are required to have completed the 16-module online orientation course. Although most staff members working in licensed child care in Nova Scotia hold a Level 1 or higher (CCCNS, 2014, p. 26), a review of the Nova Scotia child care system published in 2016 found that “the quality of programming is inconsistent across the province and there is no systematic approach provincially to evaluate the quality of the learning environments” (Province of Nova Scotia, 2016, p. 5).

The act of creating pedagogical documentation in an early childhood setting requires a disposition of curiosity, reflection, and respect for the insight and competence of young children. As well, it calls for skills and knowledge specific to the science of child development, emergent programming, and observation. In situations and settings where the quality of programming and the level of staff qualifications are inconsistent, there may be challenges for practitioners to adopt current best practices relating to pedagogical documentation and the related practice of emergent curriculum.

If pedagogical documentation is best done as a collaborative process (Seitz, 2008) and if ECEs find themselves challenged in terms of the production of pedagogical documentation, (Beach & Varmuza, 2013; Kroeger & Cardy, 2006), could these challenges be addressed if pedagogical documentation was created specifically for the children, with the children and by the children rather than being developed primarily for an adult audience of parents, teachers, and administrators? Recognizing that time is often cited as an obstacle to the creation of pedagogical documentation, one possible way to make the process of documentation more accessible to ECEs is to incorporate it as part of the regular ‘on-the-floor’ activities of the classroom rather than a task that is done after hours or during planning time. If educators and
children work together on the construction of documentation as part of their regular interactions, with the understanding that the documentation is directed to the child or children who were involved in the activity then the process of construction may become less onerous for the educator and more meaningful for the child. This research study examined what happens when educators were asked to introduce the concept of co-constructed pedagogical documentation into their practice.

**Purpose of Study**

“There is a preponderance of research conducted in the area of children’s learning and development, however, there appears to be a lack of corresponding research regarding the specific role that educators play in their facilitation of early learning, especially in a play-based program” (Krieg, 2011).

Documentation can serve many audiences in an early learning environment including children, educators, parents, and administrators. Documentation can also serve many purposes in this same environment including formative and summative assessment, a showcase to highlight practice or events, visual ‘evidence of learning’, and a catalyst for emergent planning. These are all valid reasons to document; however, it is possible that educators could create documentation for these purposes without including meaningful and direct input from the child. In other words, they can document ‘about’ the child but not ‘with the child’. From my conversations and experiences in working with early childhood educators over the past three decades, I have observed that most ECEs create documentation displays or panels during breaks, lunches, after hours or during designated planning times. This means that the construction of documentation and interpretation of the child’s activity is often done without the child being present and reflection by the educators happens in a ‘fragmented and haphazard way’ (Wong, 2009, p. 25). In other words, the child is involved in the development of the content being displayed but not
necessarily in the process of creating the display. Dahlberg, Moss, and Pence (2006) make the distinction between the content and process of pedagogical documentation when they explain that:

…the content is the material that records children’s interactions, their work, and how the pedagogue relates to the children and their work (whereas) the process involves the use of content as a means to promote dialogue through revisitation, interpretation and negotiation by the protagonists – the children, teachers and parents. (as cited in Buldu, 2010, p. 1440)

The purpose of this study was to invite educators to involve children in the creation of both the content and process of documentation, and then examine the factors associated with this co-construction. This means that the documentation was generated with children and for the children, with the children being considered the creators as well as the primary audience, allowing them to review, reflect and revisit their experiences. “Active involvement of children in planning and documentation is an area ripe for further exploration. It holds the potential of overcoming the present over-reliance on individual written observations done ‘to’ children.” (Alcock, 2000, p. 18).

In supporting children to be actively engaged in reflecting on their own development, “co-constructing and creating knowledge rather than being perceived as passively observed objects to be filled with knowledge” (Alcock, 2000, p. 18), this design-based research study examined factors that support the educator to produce relevant and insightful documentation that would result in a program that is more reflective of children’s interests and needs. As well, it addressed the questions of how this co-constructive relationship between educator and child contributes to educators’ understanding of children’s developmental strengths, needs, and interests; how co-construction influences educators’ ability to be more reflective and intentional in their practice and if the process provides opportunities for children to display examples of
metacognitive activity, e.g., reflecting upon or revisiting their own learning experiences. It investigated if parents/families report an increased level of understanding and engagement in their child’s play-based learning. And, finally, the study examined if educators found the documentation process more accessible when it is done ‘on the floor’ with the children present rather than doing it ‘after hours’.

Using a mixed-methods, qualitative approach, this design-based research study examined factors associated with the practice of co-constructing pedagogical documentation with children. Design-based research is generally situated in authentic contexts with a focus on the testing of a significant intervention and is characterized by a collaborative partnership between researchers and practitioners (Anderson & Shattuck, 2012). Therefore, this methodology was determined to be appropriate for this qualitative study.

Because design-based research is an iterative process, participants were able to continually advance their thinking and their practice as they reflected upon their relationships with documentation and with children throughout the research time period. This ongoing examination of practice resulted in a rich analysis by the participants of their experiences with co-constructed pedagogical documentation.

Research Questions and Design

Research problem. Early childhood professionals seem to agree that there is value in pedagogical documentation (Bowne, et al., 2010; Goldhaber & Smith, 1997; Katz & Chard, 1996; Kline, 2008; Tarr, 2010; Turner & Wilson, 2010). Documentation is beneficial to the educators themselves as the basis for their planning and in their role as reflective practitioners. It serves as a type of formative assessment of the children’s progress (Buldu, 2010; Turner & Wilson, 2010). Pedagogical documentation is useful to administrators who use it as visual
evidence of the teaching practice of the educators and the quality of programming in the early learning setting. Parents find it useful as it provides a window into their child’s world – making their learning visible, offering insight into what their child does and who their child is when they are outside of the home (MacDonald, 2007). And finally, and perhaps most importantly, documentation is useful for children, acting as a provocation for further learning and exploration (Goldhaber & Smith, 2010), and supporting young children’s self-regulation and metacognition (Robson, 2016). Despite these many benefits, early childhood educators report that producing pedagogical documentation is time consuming and difficult (Kroeger & Cardy, 2006). This is a problem that can limit the role of pedagogical documentation in early childhood settings, resulting in practitioners, parents and children who are not benefiting from the value that documentation can provide. Examining factors associated with the production of pedagogical documentation process is of benefit to children, parents, early childhood educators, administrators and those who provide training and professional development to early learning practitioners.

**Research questions.** This qualitative design-based research study examined factors which both influence and are influenced by the co-construction of pedagogical documentation by educators and children for the primary consumption of the children. This study investigated the following research question:

**Main research question.** According to the experiences and perceptions of educators, parents, and children, what key factors contribute to and result from the effective co-construction of pedagogical documentation by educators and children in play-based early learning settings?

To delve more deeply into the overarching research question, several sub-questions were posed, specifically:
**Sub-questions.** In reference to the process of co-constructing pedagogical documentation:

1. What factors contribute to educators’ understanding of children’s developmental strengths, needs, and interests?
2. What factors contribute to educators’ ability to be reflective and intentional in their practice?
3. What factors influence children’s level of metacognition?
4. What factors influence parents’ understanding and engagement in their child’s play-based learning?

**Significance of Study**

The findings of this research will result in a solid rationale for early childhood educators to adapt their practice in ways that will involve children in the construction of documentation. This is especially timely as several jurisdictions across the country have introduced Early Learning Frameworks over the past several years and others are in the process of developing such frameworks. At least six provinces have frameworks that reference the use of documentation and reflective practice in early childhood settings (Prince Edward Island, New Brunswick, Ontario, Manitoba, Saskatchewan, and Alberta). Findings from this research will assist ECEs across the country as they incorporate the practice of pedagogical documentation into their practice.

The results of this study will support administrators of early learning settings to provide the time, space, resources, and opportunities necessary to make co-construction of pedagogical documentation possible. And finally, research findings have implications for the post-secondary pre-service training and in-service professional development of early childhood educators in terms of the inclusion of tools and techniques related to the co-construction of pedagogical
documentation. All of this translates to improved early learning experiences for young children and their families.

**Overview of Chapters**

Chapter One provided an introduction to my interest in examining how co-constructed pedagogical documentation has an effect on the practice of ECEs as well as its effects on children’s ability to reflect on their own activities and those of their peers. It introduces the possibility that co-construction can influence parents’ understanding and engagement in their child’s play-based learning. The literature review found in Chapter Two provides a closer look at the practice of pedagogical documentation, including its benefits and challenges in a play-based setting. This literature review delves more deeply into issues relating to parental engagement, and encouraging children’s voice and participation in early learning settings. It takes a closer look at metacognition in young children, and how reflective practice and intentionality play a role in planning play-based programs using an emergent curriculum approach. Chapter Three provides an examination of the theoretical underpinnings that have had an influence on this research study, including Vygotsky, Piaget, Malaguzzi as well as critical theorists such as Dahlberg, Moss, Pence, and Lenz-Taguchi. Chapter Four includes a detailed explanation of the methodology of the research, including ethical considerations, and significance of the research. Chapter Five describes the findings of the research study. Chapter Six provides the discussion and conclusion, including limitations and recommendations for further research.
Chapter Two – Literature Review

This literature review begins with an in-depth examination of literature relating to pedagogical documentation – specifically looking at what it is; where it comes from; its benefits and challenges and how it can be used to engage parents in an early learning setting. Because this research study specifically examines the effects of children’s active participation in the co-construction of pedagogical documentation, this literature review takes a closer look at the concept of including children’s voice in early learning settings, starting with a typography of participation and ending with an examination of the possible outcomes of children’s active participation in the planning and implementation of an early learning program. The relationship between reflective dialogue between adults and children and the resulting effects of this type of dialogue on children’s levels of self-regulation and metacognition are discussed.

One of the factors to be examined in this research study is whether co-constructed pedagogical documentation influences reflective practice and intentionality, as ECEs and children plan for ‘what comes next’. This is a basic tenet of an emergent curriculum approach to programming. It is for this reason that this literature review includes what it means to be reflective and intentional in a child centred/play-based program using an emergent curriculum approach.

Pedagogical Documentation

For decades, early childhood educators (ECEs) and teachers have documented children’s experiences as part of their practice. Traditionally, this documentation was generally limited to displaying children’s artwork or posting photographs of a field trip or a visit with a special guest. It was meant to be a way of capturing a particular moment in time, or reconstructing a specific event. These displays of documentation were put on a bulletin board accompanied by captions
such as “A Trip to the Farm” or “We Made Cupcakes” and lingered on display until the next noteworthy occasion occurred.

From my observations in the ECE sector over the past few decades, it appears that ECEs and teachers have become more reflective in their development and use of documentation. Inspired by the educators of the Infant-Toddler Centres and Preschools in the municipality of Reggio Emilia, Italy, it seems from the many blogs and interest sites related to the topic, that documentation developed by ECEs and teachers in Canada and the U.S. is slowly becoming ‘pedagogical documentation.’ “Documentation becomes pedagogical because the group study of documentation teaches educators about ways that children learn, and ways that adults read children’s learning” (Wien, 2013, p. 29). Stacey (2015) states that, “The process of documentation becomes pedagogical … when we try to understand the underlying meaning of the children’s actions and words, describing events in a way that makes our documentation a tool for collaboration, further learning, teacher research, and curriculum development” (p. 1).

Rinaldi, a Reggio Emilia educator builds on this notion of documentation when she emphasizes that:

It (documentation) is done best when educators reveal through stories who children are, not just what they know. These narratives about young children are not singularly about their development, but rather are about the image of children as citizens, as actors in society and co-constructors of culture. (Rinaldi, 2010, in Turner & Wilson, 2010, p. 7)

The process of pedagogical documentation “slows us down” so that we can consider “a moment of lived life in detail with attentiveness and appreciation for the meaning of life children are creating” (Wien, 2014, p. 4).

Pedagogical documentation is the combining of texts, photos, transcripts of conversations, audio tape, video, drawings, and other media to create displays in the form of
individual portfolios, display panels, bulletin board displays and the like in an effort to make learning visible to children, teachers, parents and the public. It serves as a “historical record of past events and provides us with ideas for future experiences as well as a means for sharing evidence with family members or others” (Bowne, et al., 2010 p. 49). Documentation typically includes samples of a child’s work at several different stages of completion; comments written by the teacher or other adults working with the children; transcriptions of children’s discussions, comments, and explanations of intentions about the activity; and comments made by parents (Katz & Chard, 1996).

**Reggio Emilia.** Pedagogical documentation originated as one component of the educational approach applied in the infant-toddler and preschools in the municipality of Reggio Emilia in Northern Italy. The “Reggio Emilia Approach” which began shortly after World War II under the leadership of Loris Malaguzzi, has had a tremendous influence on North American preschool education over the past two decades. Much of what has been written about Reggio Emilia concentrates on the practical aspects of documentation, focusing on describing specifically how projects are completed and how documentation forms an integral part of the ongoing project work (Grieshaber & Hatch, 2003). According to Peter Moss (2016), Malaguzzi saw pedagogical documentation as a way to present children’s creations so that they could be:

…shared, discussed, reflected upon, interpreted and, if necessary, evaluated – always in relationships with others. It can and does involve everyone, children, teachers, auxiliary staff, families, administrators, and other citizens – and gives the possibility to discuss and dialogue ‘everything with everyone’ and to base these discussions on real, concrete things. (p. 175)
Unlike many adaptations of pedagogical documentation used in North American early learning settings, Malaguzzi and the educators of Reggio Emilia did not view pedagogical documentation as a way of measuring or assessing child development outcomes. This is not intrinsic to their work. “Why do we use outcomes? Factories have input and output. Educators should focus on process…because it is how we learned not what we learned” (Rinaldi as quoted in Dodd-Nufrio, 2011, p. 237). Picchio, Di Giandomenico, & Musatti (2014), in reference to Italian early childhood education and care services, contend that:

An important feature of pedagogical documentation in ECEC services is that it is not intended to take account of children’s acquisition of knowledge of competences…Pedagogical documentation in the early years is mostly aimed at making visible children’s learning processes during their participation in ECEC service activities. Therefore, it is often defined as process documentation. (p. 133)

Malaguzzi has acknowledged the contributions of theorists such as Piaget, Vygotsky, Dewey, Rousseau, Erikson, Bronfenbrenner, Kagan, and Gardner to the philosophical underpinnings of the Reggio Emilia approach (Grieshaber & Hatch, 2003). Reggio Emilia preschools are more closely aligned with social constructivism than Piagetian cognitive developmental constructivism. Both approaches see the child as constructing his or her own knowledge and understanding of the world; however, Dahlberg, Moss & Pence (1999) describe the contrast between the two approaches by asserting that the Piagetian perspective views knowledge as:

something absolute and unchangeable, as facts to be transmitted to a child, and thus as separate from the child, independent of experience …whereas in a social constructionist perspective, children are encouraged to think and create alternate understandings before encountering scientifically accepted constructions. (Dahlberg et al, 1999 p. 55)
**Purposes and Benefits of Pedagogical Documentation.** The child has a hundred languages (and a hundred, hundred more) says the famous poem “The Hundred Languages of Children” by Malaguzzi (see Appendix A). As adults delve further into children’s learning as a result of their involvement with pedagogical documentation, they encourage children to explore these hundreds of languages. Children depict their learning, questions, and discoveries by speaking about them, drawing them, representing them through movement, sculpture, photography, art, construction, music, dramatic play and so on. Documentation uses these depictions to promote reflective thinking on the part of both the adult and child, leading to new and more complex explorations.

Documentation contributes to the extensiveness and depth of children’s learning from their projects and other work (Katz & Chard, 1996). It can be used to gain insight into how children develop and respond to the learning opportunities and obstacles they encounter (Kline, 2008). Documentation provides ECEs, teachers and parents with a greater understanding of children’s questions, wonderings, misconceptions, and discoveries which helps to put their questions and statements into context. This, in turn, helps adults to extend investigations, building upon children’s thinking using reflective comments and questions, respectful conversation, and careful planning of activities based on children’s interests and ideas. According to Bowne, et al. (2010), “Documentation provides qualitative evidence of the children’s current thinking and learning and leads to the development of new possible strategies to assist children in reaching the next learning steps” (p. 49). The act and the art of pedagogical documentation can transform those who are involved in the process. It can create a culture of reflection and discussion for both adults and children and it can “…transform a school ‘to become a meeting place of democracy’ (by inviting) multiple ideas, debate, and negotiation among different points of view of an experience” (Turner & Wilson, 2010, p. 10).
Goldhaber and Smith (1997) describe several benefits of documentation, including the ability of documentation to create a climate of inquiry for both teachers and children where “children strive to make sense of their physical and social worlds (…and where) teachers too are engaged in a parallel process of inquiry.” (p. 8). Kline (2008) highlights how documentation contributes to program quality by:

…demonstrating a respect for children’s ideas and work; providing a structure for continuous planning based on student work in progress; enticing parents to become more aware of their children’s experiences in school; enabling teachers to focus on their role in supporting the learning process; and providing public evidence of children’s cognitive abilities. (Kline, 2008, p. 73)

Pedagogical documentation helps parents to understand what ECEs cannot always articulate, specifically, how their child is learning in a play-based environment. By making children’s learning visible, documentation helps to depict the complex problem solving that happens when children explore their environment through play. It is the documentation of ‘ordinary moments’ (Tarr, 2010) that provides adults (parents and teachers alike) with a deeper understanding of what a child can do. When documentation is done well, it can change a parent’s perception of a child – helping them to see these ordinary moments through new eyes and can lead to a greater understanding and appreciation of their child’s early learning experiences.

According to Turner and Wilson (2010), “…documentation…carries the promise of altering pedagogic focus away from solely summative and standardized measures of student achievement toward more qualitative, formative understandings of student learning” (p. 6). It is about trying to see and understand what is going on in the work of a child and what that child is capable of performing without pre-set expectations or norms (Dahlberg, et al. (1999) in
Grieshaber and Hatch, 2003). When children are viewed from a traditional, mid-20th century type of developmental perspective, where milestones become benchmarks and teachers focus on assessing whether or not a child is meeting developmental norms, children are seen as “not like us, and always in a deficit position in relation to the mature adult” (Tarr, 2010, p. 11). Tarr continues:

The idea of documentation as beginning with curiosity opens up the purpose of observation as not just a form of surveillance of children. Documentation moves us away from looking for the expected with a predetermined goal of how does this child or the learning demonstrated, fit with the norms or expectations.” (p. 11)

The developmental perspective in the 21st century has evolved from its ‘ages and stages’ and ‘benchmarking’ reputation in part due to the understanding of underlying neurological development that reinforces the enormous and varied potential for learning and development. As Gramling (2015) notes, “The developing brain of the child during early childhood is constantly processing information faster and with greater complexity of thought than could possibly be predicted by means of performance objectives” (p. 19). Educators with a solid grounding in child development and early learning recognize the wide variation among children and the profound impact of context, which, in effect, moves constructivism closer to a social cultural approach to early learning. Therefore, educators who appreciate how children learn and who recognize the value of positive interactions between children and adults as a means to support brain development, language skills, self-regulation and socialization can use documentation as a means to understand the many and varied contextual factors of the situation. In this way, the educators are not limiting their experiences to ones where they are seeking specific indicators of behaviour. This view widens their lens to see the unexpected complexities of children’s interactions and activities. When adults imbue themselves with a curiosity of what is happening
and why, the process of pedagogical documentation can allow them (teachers and parents alike) to see the competence and creativity of children as they explore, predict, hypothesize and reflect on their experiences and the world around them.

Documentation can directly broaden and support children’s developmental experiences and outlooks as well. As Katz, Chard, and Kogan (2014) explain, pedagogical documentation provides children with the opportunity to:

revisit their own experiences and those of their classmates, read stories and narratives of pieces of work and how they were done, take a closer look at different representations, add new questions to be researched and realize how some have been answered, as well as reflect on their own learning. (p. 204)

This reflective component of documentation is a step that is sometimes overlooked by both educators and children, according to Stacey (2015) who refers to reflection as the “missing middle” of the documentation process (p. 1). Researchers in the UK examined what happened when young children (4-5 years old) in a London state school were asked to reflect on an activity after the activity took place. They found that the children were significantly more likely to display self-regulation (SR) and metacognition (M) when asked to reflect on the activity after the activity took place rather than during the activity itself (Robson, 2016). The coding scheme used in this study was described as an observation-led behavioural coding scheme and included such behavioural indicators as ‘applying previously learned strategies to a new situation’ (metacognition) and ‘monitoring own emotional reactions while being on task’ (self-regulation). The study, which included observations of 29 children over a ten-month period, revealed that who initiated the activity (child or adult) had an effect on the amount of SR and M activity demonstrated, with child-initiated activities being more likely to elicit self-regulation and metacognitive activity. These findings, specifically the importance of reflecting after an activity
took place rather than during, and the difference in child-reflection based on who initiated the activity (adult or child) are significant when examining how co-constructed pedagogical documentation can support the development of young children.

**Challenges of Constructing Pedagogical Documentation.** At first glance, the process of pedagogical documentation seems to be straightforward and ‘doable’. However, according to Wien (2011):

> When teachers outside of Reggio attempt such documentation in their own classrooms, they find it much more challenging than they had expected, which suggests how radically different the Reggio notions of documentation are from those often found in schools and child care settings in North America. (p. 1)

Contributing to these challenges may be the perception that ECEs and teachers have of themselves and their roles in the classroom. To be an effective documenter in an early childhood setting, the teacher must be able to cast herself or himself in the role of a researcher of children. Tarr (2010) notes that, “Teachers have said to me that they do not see themselves as researchers of children. They seemed to be uncomfortable with the title because to be a researcher in their minds came with implications of objectivity and academic rigor” (p. 10).

In addition to being researchers, ECEs must be reflective practitioners if they are to effectively document children’s learning. This requires time for reflection with colleagues and opportunity for professional development to allow them to be successful. Educators in a North American context are not consistently provided with the time and opportunity for planning and reflection. In the Reggio Emilia preschools, time is set aside daily and weekly, for a total of two and a half hours per week for teacher pairs to discuss with their other colleagues at the centre their ‘interpretations, hypotheses, and doubts’ (Rinaldi, 1994, p. 57). This time is seen by the
administrators of the Italian preschools as an essential component of staff development. Reggio teachers are described as having a long-term commitment to participating in staff development and enhancing their own understanding of children and pedagogy, which is a result, in part, of an attempt to “compensate for the meager preservice training of Italian early childhood teachers” (ERIC, 1993, p. 3).

Wong (2009) led a project working with six ECEs as they attempted to refine their ability to document children’s learning. Using a process of ‘dialogue engagements’ Wong met regularly with the ECEs over an eight-week period to provide them with an opportunity for “uninterrupted sustained talk about pedagogical documentation” (p. 25). During this time, the participants were able to reflect, share, discuss, compare, and think critically about the complexities inherent in the documentation process. Wong contrasts this with the typical professional development for ECEs which she describes as follows:

The majority of professional development opportunities are in the form of ‘one-shot workshops’ that assume teacher learning is a one-time, top-down, linear process. This lack of importance accorded to professional learning means that dialogic practices for many child care practitioners only occur spontaneously when children nap, eat or engage in free play. The process of dialogue and reflection in pedagogical documentation becomes fragmented and haphazard, preventing child care practitioners from developing meaningful practices and theories of teaching and learning. Pedagogical documentation remains a powerful but undervalued teacher development tool in Canadian child care settings (Wong, 2009 p. 25).

Knowing how and what to document can be a challenge for early childhood educators. A quality audit conducted in Sweden found that “teachers were unsure about how to document their practices and records” (Elfström Pettersson, 2015b, p. 443). The process of documentation is
complex. In addition to understanding the practical and technical aspects involved in the documentation process, educators are required to have an understanding of broad developmental and learning trajectories and how to plan effective programs based on this understanding. Kroeger and Cardy (2006) state that some of the difficulties faced by new early childhood educators when attempting documentation are due to “…a limited understanding of the importance of documentation, what or how to document, and the effective use of documentation; limited resources (time, tools and assistance); or predetermined curricular guidelines” (p. 389). They argue that once educators understand the philosophy and reasoning behind documentation “…their vision of openings for learning broadens and they become more willing to create and trust the co-constructed, investigative, and evolving moments as the starting, middle, and ending places for understanding the children” (p. 397).

Wien, Guyevskey, and Berdoussis (2011) propose that educators must learn new habits of mind to become effective documenters of children’s experiences and learning. Wien (2013) declares that educators must make documentation a daily habit. “Learning to have the tools we need close at hand can take months of practice. Learning to choose what to document, because we see potential meaning arising for children requires practice, judgment and reflection” (p. 28). ECEs and teachers, according to Wien, must have a willingness to share documentation or ‘go public’ with others. “As we widen our frame of reference for reflecting on experiences and share our practice with children, families and colleagues, we strengthen partnerships, and open ourselves to new understandings” (Wien, 2013, p. 3).

Documentation, then, appears to be most effective when done collaboratively. In the Reggio Emilia context, teachers work in pairs, continually collaborating with their partner teacher when observing, interpreting, and documenting children’s activities. According to the ERIC development team (1993), “Teachers routinely divide responsibilities in class so that one
can systematically observe, take notes, and record conversations between children” (p. 3). When more than one person discusses an observation or an event, each brings a different perspective and a new level of depth to the experience (Seitz, 2008). To facilitate collaboration “we must emphasize and utilize the importance of talking with one another to exchange ideas, work on problems, revise thinking, share understanding, accommodate when differences arise and create documentation pieces to make learning visible” (Bowne, et al., 2010 p. 57). Creating time and space for collaboration needs to be recognized as an essential component of every early childhood program; however, this is not always a priority for child care settings. Pedagogical documentation is a valuable tool in the educator’s repertoire but is often under-used for a variety of reasons, including a lack of time to create the documentation or a lack of confidence in and understanding of how and what to document (Wong, 2009). You Bet We Still Care (2013), an examination of the ECE workforce in Canada, reveals that almost 60% of ECEs report having no paid preparation or planning time; one third of the workforce reports not having an available staff room, and less than half have paid release time for professional development activities (Flanagan, Beach & Varmuza, 2013). These factors combine to make collaboration with colleagues and opportunities for reflective practice difficult.

Perhaps the biggest challenge to pedagogical documentation is not the lack of time or space for collaboration but rather ‘buy-in’ on the part of the educator. According to Wien, “We can’t tell people to change – we have to invite them to” (Wien, 2013, personal interview). Without an understanding of the purpose of documentation and how it can be used, the educator may continue to provide superficial documentation that is more a display of what children are ‘doing’ as opposed to what they are learning, experiencing, questioning, and discovering. At some point, educators need to come to the realization that documentation is not about “finding answers but generating questions” (Filippini, 2010, as quoted in Turner & Wilson, 2010, p. 9).
Educators need to be patient with themselves, understanding that they will go through various stages of development in the journey to proficiency (Seitz, 2008; Wien, 2013; Wien et al., 2011).

The first task…is to encourage teachers to try documentation, to recognize their first attempts as beginnings, placeholders of sorts, and to have an acute sense of timing about when to support teachers in seeing that there is much more with which they can engage – to enjoy, study, interpret, plan, and carry forward – that will make teaching unbelievably exciting. (Wien et al., 2011, p. 5)

**Sharing the Story and Sharing the Power**

**Sharing the story: Children’s levels of participation.** Children’s level of participation in an early childhood setting can be categorized in a number of ways. Thomas (2007) cites various typographies of participation beginning with the ‘ladder of citizen participation’ which has, as its lower rungs, ‘non-participation’, e.g. ‘manipulation’, ‘decoration’ and ‘tokenism’. Further up the ladder are rungs indicating participation levels where children are ‘assigned but informed’ or ‘consulted and informed’. The highest rungs of the ladder use such labels as ‘adult-initiated, shared decisions with children’; ‘child-initiated and directed’; and at the top ‘child-initiated, shared decisions with adults.’ (Thomas, 2007). This type of conceptual framework can be useful in helping to define what is meant when discussing the level of child participation expected or hoped for in any early childhood setting. Striving for participation at the ‘upper rungs’ where children are not just listened to and/or consulted but instead have real input and can have ‘reason to believe that their involvement will make a difference’ (Sinclair, 2004, as cited in Thomas, 2007) would be considered worthy goals for any early childhood practitioner.

Dell Clark (2011) introduces the concept of ‘ventriloquization’ of children where adults speak for children rather than directly consulting them to report on their own experiences.
According to Dell Clark, this tendency is unfortunate in that it “lacks a direct line to children’s experienced meanings” (p 6). Although she is speaking directly about academic research models, her findings are applicable to the research that educators conduct when they examine children’s experiences through documentation. Including the children’s voice gives adults a ‘direct line’ and allows children to be the first-hand expert in the analysis of their own experiences. Participating in the co-construction of documentation is one way to provide this direct line; however, educators can find many other ways as well to support children’s expression and telling of their own stories. Tay-Lin (2013) explores ways to ‘privilege’ children’s voices in her research. In her work, she quotes Wright (2003) who says that when children are able to engage in multiple means of expression they are “liberated to mentally manipulate and organize images, ideas, and feelings, and to use a rich amalgam of both fantasy and reality to portray experiences” (Wright, 2003, p. 24, as quoted in Tay Lin, 2013, p. 68).

This research project required active participation of children on several levels. By inviting children to co-construct pedagogical documentation, they were asked to participate directly in a reflection of their own play experiences. Elfström Petterson (2015a) refers to this type of documentation as ‘retrospective documentation’ and states that when engaged in this type process, as compared to ‘activity-integrated’ documentation, “the child was found to have a real influence on the outcome of the documentation process” (p. 245).

This co-constructed documentation is intended to serve various purposes. The most direct outcome, perhaps as far as the child is concerned, was to be an active participant in a reflective discussion where their voice is valued and their ideas help to determine ‘what comes next’ in terms of extending the activity either through child initiated or adult directed activities.
In this way, the children have a reason to believe that their involvement in a dialogue makes a difference.

The more indirect outcomes of this shared involvement are less obvious to children but are tangible in that they could prove to have a lasting effect on the child’s overall experience in the early learning setting. Specifically, this type of shared involvement could result in a setting that promotes and supports the cognitive development of children through the practice of sustained shared thinking, or SST, which is defined as “an effective pedagogic interaction where two or more individuals work (often playfully) together in an intellectual way to solve a problem, clarify a concept, evaluate activities, or extend a narrative (Siraj-Blatchford, 2008, p. 7). In a five-year longitudinal study of British preschools, Siraj and Sylva found that “The children and practitioners in excellent centres engaged in the highest proportion of sustained shared thinking interactions, suggesting that the excellent settings promote intellectual gains in children through conversations in which the adult and child co-construct an idea or activity” (Siraj-Blatchford & Sylva, 2007, p. 724).

Shared involvement has an impact on both children and adults. It increases a sense of collaboration among children with their peers and children with adults because of the collective experiences in the construction of pedagogical documentation. With adults it can result in more reflective early childhood educators who develop a greater understanding of what it means to actively listen to children as they describe their experiences and then subsequently plan activities based on these conversations. It is through this experience of listening that practitioners develop a fascination of children, leading to a climate that is more reflective and filled with wonder. In the words of Malaguzzi:
What are the consequences of not listening, of not being disposed to listen? We adults lose the capacity to marvel, to be surprised, to reflect, to be merry, and to take pleasure in children’s words or actions, which children dispense as soon as we find the will and the time… These experiences and feelings cannot be renounced because they are the ones that lead us forward with thinking, with making projects, with engaging in daily imagination, and with reflecting on the children themselves. (Malaguzzi, 1993 as translated by Gandini, 1994, p. 55)

Carr’s work in New Zealand with learning stories, a form of pedagogical documentation that involves collaboration between children and teachers in the development of a story about specific learning episodes, has demonstrated that “Taking some ownership in a conversation enables the learner to make connections with his/her own experiences in a meaning-making discussion” (Carr, 2011, p. 259). By ‘sharing the story’ with children, educators can provide children with the opportunity to become reflective learners – learners who “practice clarifying and articulating one’s ideas and listening to other’s perspectives” (Carr, 2011, p. 258).

Learning stories first evolved as a way of documenting and highlighting children’s learning in early learning programs in New Zealand which are guided by Te Whāriki, the New Zealand national early childhood curriculum (Carr, 2011). Carr describes them as “observations in everyday settings designed to provide a cumulative series of qualitative ‘snapshots’ or written vignettes of individual children displaying one or more of the five target domains of learning disposition” (2011, p. 96). Learning dispositions, as described by Carr, are a “combination of inclination, sensitivity to occasion, and the relevant skill and knowledge” (p. 21). Katz describes them as being “habits of mind, tendencies to respond to situations in certain ways” (Katz, 1988, as cited in Carr, 2011, p. 21). The five learning dispositions that become the primary focus of
Carr’s learning stories are 1) taking an interest; 2) being involved; 3) persisting with difficulty or uncertainty; 4) expressing an idea or feeling; and 5) taking responsibility (Carr, 2011, p. 98).

Learning stories are written for both adult and child audiences, yet, are designed and used in such a way that the child’s voice is welcomed, supported, and encouraged, recognizing children’s agency and responsibility for their own learning. Carr and Lee (2012) detail the various ways that children become involved in the documentation process as active authors and creators of learning stories. Children are invited to add their own comments to the learning stories (“So what does this mean for my learning in the future?”) (p. 42); are encouraged to revisit stories about their learning (p. 42); are supported as co-authors of the learning (p. 48); and are invited to engage in self-assessment (p. 51). Portfolios, which contain a compilation of children’s learning stories, are used as “catalysts to have a shared conversation, a means for teaching others, a way to learn the vocabulary of learning (and) an opportunity to dictate (or retell) a story” (Carr & Lee, 2012, p. 57).

**Sharing the story: Parents’ level of participation.** Parents choose to enrol their children in early learning programs for a variety of reasons, recognizing that high quality early education environments support children’s overall development and, at the same time, facilitate workforce participation. Regardless of the reason for enrollment, most parents of young children are busy and find it logistically difficult to discuss their children’s activities and interactions with their early childhood educators in the run of a day. In a research study examining the predictors and correlates of communication between staff members and families at child care centres, Perlman and Fletcher (2012) emphasize that “Strong, supportive partnerships between families and school settings have been shown to enhance children’s learning and decrease behaviour problems” (p. 540). However, this same study showed that parents spend, on average, sixty-three (63) seconds in their child’s classroom during the morning drop off (p. 539). It is difficult
to imagine that parents can have any meaningful discussion with educators during these sixty-three seconds about their children’s latest discoveries and interests or the learning progress noted in the classroom setting. Nor would they have time to ask about the pedagogical practices of the centre and how these practices are helping their children meet learning goals that parents may see as desirable, e.g., “How is your program helping my child prepare for school when all she seems to be doing is playing?” Do parents even know what to look for when assessing appropriate programming? Do they know what questions to ask and why is this important?

When parents are viewed as welcome partners in their child’s early learning experiences, they are able to bring their own ideas, abilities, knowledges and experiences to the table, thereby enriching the experience for the children, the educators and the families. “In contemporary society, families from all backgrounds have a desire to be involved in their children’s learning” (Reynolds & Duff, 2015, p. 93). Educators from Reggio Emilia have long recognized the importance of parental involvement in their schools and have systematically integrated many ways to support this involvement, with pedagogical documentation serving as one of the essential methods for involvement and communication. By viewing documentation and becoming more involved in the children’s program, parents are “provoked to revise their image of the child and understand childhood in a richer and more complex way” (Edwards, 2012, p. 154).

Pedagogical documentation can facilitate communication with and within families. It can draw them into the classroom and can act as a springboard for conversation (Kline, 2008), bringing the exchange beyond the ‘Hello’s and How are you’s?’ described in the Perlman and Fletcher study (2012). In a research study examining families’ perceptions and experiences with their child’s pedagogical documentation, Reynolds and Duff (2015) found that documentation
displays helped parents initiate conversations with their children about their learning explorations at the centre, acting as a provocation to ask more in-depth questions, and at times, led to an extension of centre-based experiences at home. As well, these displays promoted dialogue among family members, “triggering conversations at home, particularly between the parent who had little contact and involvement with the early learning centre and with siblings” (p. 96).

Documentation offers parents the opportunity to consider the richness and diversity of their children’s experiences and to celebrate their often-unnoticed achievements (Goldhaber & Smith, 1997). Malaguzzi declared that documentation:

Introduces parents to a quality of knowing that tangibly changes their expectations. They re-examine their assumptions about their parenting roles and their views about the experience their children are living, and take a new and more inquisitive approach toward the whole school experience” (Malaguzzi, 1993, p. 64 as quoted in Katz & Chard, 1996, p. 4).

Documentation gives “…. a visual description to a progression that is often bewildering to parents. It showed where children are in their learning and what might follow” (MacDonald, 2007, p. 239). When MacDonald (2007) examined the use of pedagogical documentation in early elementary classrooms, she asked the question, “Does pedagogical documentation help family members understand what their children are learning in kindergarten?” (p. 234). She found that all the parents interviewed stated that they found the documentation useful. “Specifically, they felt it helped them to gain a better understanding of reading and writing processes and learning supportive strategies” (p. 238). The difficulties encountered in this study centred on the lack of parent presence in most classrooms:
It was typical for parents to quickly drop off and pick up their children outside the classroom… and/or for the children to be picked up by caregivers, babysitters, friends or relatives. This made communicating with parents about the documentation panels almost impossible. (p. 239)

“Children who are in care for more than a few hours a week are there precisely because both of their parents work or a single parent is employed indicating that time available for any type of parent involvement is very limited” (Shimoni, 1992 quoted in Zellman & Perlman, 2006, p. 521). Compounding this is the fact that the primary caregiver for the child who is present at the centre at the morning drop off time will likely not be there at the evening pick up due to shift scheduling, meaning that the ECE who sees the parent at pick up time has not likely spent most of the day with that parent’s child. This limits the opportunity for meaningful dialogue between parent and educator regarding the child’s day. Because of these time and scheduling factors, making pedagogical documentation more accessible can help to engage busy parents in their child’s early learning experiences.

The Digital Generation. This is the first generation of adults who have always had computers in their lives (Ray, 2013). They are more likely to be connected to the internet at either work or home and are accustomed to having information come to them through digital means. Many parents today turn to social media and the internet to look for and create communities of like-minded souls. Teachers and ECEs are currently using this to their advantage through the development of photo and video sharing sites as well as interactive classroom blogs (Parnell, 2012). This tendency to turn to technology is being explored further by some child care centres to bring the advantages of pedagogical documentation to parents in ways that are meaningful and useful to them (Wien, 2013, personal interview).
Although the temptation is there to go completely digital with documentation, it would serve parents and programs well to ensure that documentation can also be viewed in person. There are certain advantages to encouraging parents to linger in the hallways or classrooms, viewing documentation displays. When parents linger, they have the opportunity to observe adult child interactions, talk with teachers, ask questions and meet their child’s playmates and spend time with other parents (Brown-DuPaul, et al., 2001). Either way (virtual or reality), pedagogical documentation is an effective means of inviting parents into the dynamic conversation that occurs when children’s learning becomes visible.

Sharing the power: Co-construction between adults and children. Co-construction refers to a teaching strategy whereby adults and children “form meaning and build knowledge about the world with each other” (McNaughton & Williams, 1998, as quoted in Jordan, 2004, p. 33). It requires excellent dialogic skills on the part of the educator. If these skills are not present, or if the educator is not aware of the value of this type of co-constructed conversation on learning, then it is unlikely that the educator will empower the child through their interactions (Jordan, 2004). Jordan, whose research was influenced by Vygotsky’s socio-cultural theoretical framework, documented that young children displayed higher-order thinking, and were more empowered and engaged in learning when educators used a co-constructive approach rather than when the educators scaffolded learning for them (Jordan, 2004).

In her research, Jordan (2004) distinguishes between co-construction and scaffolding, with scaffolding being the term often used when describing the Vygotskian socio-cultural paradigm. Scaffolding, which is a term that Vygotsky did not use in his writings although it is often associated with his ‘zone of proximal development’, relates to adult-child interactions in which adults take the role of the more experienced ‘other’ as they support the child in reaching
the next level at which they are capable of working, using a type of graduated assistance. Within this model of interaction, the adult is always seen as the ‘expert’ who provides the novice (child) with support and knowledge. The power dynamic within this structure is most often skewed towards the more powerful ‘other’. Co-construction, on the other hand, is described by Jordan as being a more democratic process in which children are viewed as powerful players in their own learning. She invokes Malaguzzi’s view of children as she describes the process of co-construction:

The term co-construction emphasises the child as a powerful player in his/her own learning. The child as co-constructor provokes an image of the child as ‘rich in potential, strong, powerful, competent, and, most of all, connected to adults and other children.

(Malaguzzi, 1993, p. 10, as quoted by Jordan, 2004, p. 33)

Tay Lin’s (2013) exploration of the differences between scaffolding and co-construction echo Jordan’s description of the unbalanced power dynamic:

Scaffolding refers to adults or more capable peers providing the necessary structures and helps to support the novice in his or her learning. While scaffolding a child’s learning, the adult remains the knowledge expert who directs the child’s learning process. In contrast, when adults encourage children to co-construct, shared understandings about particular topics and issues develop. (p. 70)

In an effort to create a more balanced and democratic relationship, adults need to know what types of questions to ask of children, when to ask them, and how to engage. Listening is key. Listening acknowledges the fact that children have something to say – that they have knowledge about themselves and the world around them.
Jordan (2004) notes that in scaffolding, the questioning techniques being used by adults are designed with specific learning outcomes in mind. Focusing on pre-determined goals can be limiting in terms of recognizing children’s theories and depth of understanding. In comparison, the questioning techniques used during co-construction are not designed to directly uncover specific developmental outcomes. Rather, the adult is ‘aware of the child’s interests, refrains from interrupting the child, allows silences and follows the child’s lead’ (Jordan, 2004, p. 40). To become adept at co-constructive techniques, educators require not only a mindset that values the contribution of children to their own learning, but specific training to skills related to reflective dialogue with children (Jordan, 2004; Tay Lin, 2013).

When applying the technique of co-construction to the creation of pedagogical documentation, educators are creating a more balanced relationship between adult and child and are, by necessity, becoming more reflective and collaborative. They are ‘sharing the power’ in the adult/child relationship, a phrase borrowed from Wien which she uses when describing an emergent curriculum approach (Wien, 2013, personal interview,). The co-constructed relationship could be viewed as one that is more democratic and authentic when compared to documentation that is done solely through an adult lens. According to Sparman and Lindgren (2010), a possible risk with documentation is that it can objectify children, putting them on display, or in a “subordinate position of being looked at, whereas being an adult means being in the superior position of being an onlooker” (p. 259). In response to Sparman and Lindgren’s concerns, Elfström Pettersson (2015a) asks, “Could enabling children to participate in documentation practice be one way to reduce this risk?” (p. 244).

Among other benefits, the use of reflection and collaboration can support ECEs in their efforts to implement a child centred play-based early learning program using an emergent
curriculum approach. This type of planning is complex and requires a skill set and disposition that is not always apparent in those who work with young children, either due to a lack of ECE specific qualifications; lack of experience or lack of support. As observed by Wood (2007):

The idea that curriculum content arises through needs and interests may be ideologically seductive but remains problematic in practice. For example, showing an interest is not the same as making meaningful connections between areas of learning and experience. In addition, children are drawn to activities that involve interested and interesting adults, whether those activities are highly structured or open-ended. (Wood, 2007, p. 312)

Even those skilled in the Reggio Emilia approach question themselves when deciding when and how to intervene, worried that they may let a valuable teaching moment go by. Edwards, Gandini, & Forman (2012) capture this delicate tension during a group discussion of Reggio Emilia educators:

But you are always afraid that you are going to miss that hot moment. It’s really a balancing act. I believe in intervention, yet personally I tend to wait because I have noticed that children often resolve the problem on their own, and not always in the way that I would have told them to! Children often find solutions that I would never have seen. But sometimes waiting means missing the moment. So, it’s a decision that you have to make very quickly. (Vea Vecchi, 1990, in Edwards, Gandini & Forman, 2012, p. 157)

An ECE in a different (North American) context describes emergent curriculum as ‘like a road I am on’. When she sees a new problem arising she feels that this adds excitement to her work – the problem gives (her) a direction. (Wien, Keating, Coates & Bigelow, 2008, p. 80). ECEs who are intent on planning a child centred, play-based environment must be comfortable with this understanding that there is no road map or guide detailing what to do in every situation.
They must be open to self-examination and self-reflection. ECEs using a Reggio-inspired approach benefit from the support of a mentor who can provide analysis and feedback that includes both support and criticism.

In contrast to a system in which concern for hurt feelings or ownership of ideas prevents extended examination and argumentation, in Reggio Emilia intellectual conflict is considered pleasurable for both adults and children…. The point of a discussion is not just to air diverse points of view, but instead to go on until it is clear that everyone has learned something and moved somewhere in his or her thinking. (Edwards, Gandini & Forman, 2012, p. 159)

**Reflective Practice**

Reflective practice is an “active, persistent and careful consideration of the basic assumptions and conclusions one holds in one’s direct experiences that informs future actions.” (John Dewey, 1933, as quoted in deVille, 2010, p. 1). In the early learning and child care field, reflective practice is closely linked with professionalism and appears to have become a necessary component of the role of the early childhood educator. According to Dietze and Kashin (2006):

The early learning profession has undergone significant changes in the last decade or so and will continue to evolve. We are in a time now of reimagining our views and perspectives on children. This reimagining requires early learning students and professionals to examine past perspectives about children and families (p. 45)

In order for this evolution to take place, ELCC practitioners and ECE students must become reflective in terms of their practice, their programs, their teaching and learning environments and their interactions with families, children, and colleagues.
Reflective Practitioners. When thinking about what reflective practice is, it is sometimes helpful to think of what it is not. According to John Dewey (1933, as cited in Kapoor, 2014), the opposite of reflective practice is routine action. Routine action can be defined as behaviour that is guided by impulse, tradition and authority. Moss (2006) describes three images of ECEs, tracing an evolution of how early learning practitioners have been viewed over the past few decades from ‘substitute mothers’ to ‘technicians’ to ‘researchers’. (Moss, 2006). ECEs who move beyond routine action can be considered researchers, as defined by Moss. According to this definition, researchers are ‘constantly seeking deeper understanding and new knowledge, in particular of the child and the child’s learning processes” (Moss, 2006).

ECEs as researchers are those who investigate, explore, inquire, and examine and, at the same time, encourage these same behaviours in the young children with whom they work. However, as Beattie (1997) asserts, “It seems a little incongruous to suggest that teachers who have not experienced inquiry in their own lives will be able to create settings which encourage children to question, pose problems, and to be self-directed learners” (Beattie, 1997). Therefore, to encourage reflective practice among early childhood educators, it seems likely that the skills involved in this practice must be identified, defined, modelled and supported both on a pre-service and in-service level.

Ojala & Venninen (2012) outline five levels of reflection originally described by Hutton and Smith (1994, as cited in Ojala & Venninen, 2012), specifically, (1) the technical listing of activities; (2) description of activities/tasks; (3) analysis; (4) examination; and (5) critical reflection. In this same article, the authors include Van Manen’s (1977) proposed three levels of reflection – technical, practical and critical. There are other ways of categorizing the process as well; however, the common denominator seems to be that reflection progresses from concrete to
abstract. “With an increasing level of reflection, it is possible to shift from everyday thinking to other levels involving more critical and theoretical thinking. This shift moves from the literal and immediate to the abstract, conceptual and theoretical” (Ojala & Venninen, 2011, p. 337).

Not only is it important to know how to be a reflective practitioner, it is also essential to know when to be reflective. According to the literature, there are various types of and opportunities for reflective practice. Green (2006), as cited in Kapoor (2014) describes three distinct kinds of reflection – ‘reflection for action,’ ‘reflection in action’ and ‘reflection on action.’ Reflection for action occurs before practice, focusing on what should work and why; reflection in action happens during practice, examining what works and why; and reflection on action takes place after practice when the practitioner takes a look at what worked and why.

Everyday opportunities for these three types of reflection happen as educators co-construct pedagogical documentation, introduce novel materials, provocations, and loose parts into the learning environment, and observe and interact with children. The implementation of jurisdictional early learning frameworks has provided opportunities for reflective practice; here practitioners come together to examine their values and beliefs about children and learning environments through in-service sessions and the use of reflective questioning which is a significant component of most jurisdictional early learning frameworks. The co-construction of pedagogical documentation can provide an opportunity for educators to become more reflective, individually and in the company of others, by placing them in a situation where reflection is necessary for the dialogic interaction to occur between adult and child.

Being a reflective practitioner takes practice and requires active support from pedagogical leaders and peers within the early learning environment. Coming together to discuss and reflect on one’s practice with colleagues in a professional learning community can lead to
improved skills and higher quality learning environments. “Professional learning communities create opportunities for dialogue which also makes it safe to ask questions and work in a community where uncertainty is not only valued but supported” (Snow-Gerono, 2005). To create an environment conducive to reflective practice it appears that certain elements such as designated time, collaborative opportunities, supportive leadership and reflective mentors must be present. To ‘go deep’ with reflective practice, it is recommended that it be done with others – either a ‘critical friend’ (Stenhouse, 1975) who can participate in honest and reflective dialogue or with a team who work together to think critically about actions and practice. “Social reflection generates change in the perspective meaning of each participant. Participants can share experiences, establish interpretations, and question different options. In this way, they use the perspectives and experiences of others” (Ojala & Venninen, 2011, p. 337).

Despite the important role of pedagogical leadership in supporting professional learning in early learning settings, Flanagan, Beach and Varmuza reported in their 2013 sector study that twenty-six percent of employers in centre-based child care programs undertook a mentoring program for their staff members in an effort to support and improve quality. In addition, fewer ECEs had access to paid preparation time, financial assistance for ECE-related professional development or paid release time for professional development in 2012 as compared to 1998 (Flanagan et al., 2013). To build an atmosphere that encourages reflective practice, certain basic supports must be in place, including adequate opportunities for professional development.

**Reflective Children.** When children reflect upon their activities and interactions, they are engaging in a form of metacognition. The concept of metacognition is multi-faceted and has been studied by numerous theorists, including Piaget and Vygotsky. Flavell (1979) is most closely associated with the definition of metacognition, which goes beyond the relatively
simplistic ‘thinking about thinking’. Flavell, according to Robson (2010) identifies three components of metacognition, specifically, the self and others as learners; tasks and goals; and strategies used to solve identified problems and meet goals (p. 228). Robson identifies that metacognition is not solely focused on activities in the cognitive domain but also includes the inter-relationship of emotional and social aspects of children’s metacognitive experiences (2010, p. 228). This is significant as it broadens what is thought of as learning to include affective components as well as the accumulation of knowledge and the development of logic and it strengthens the connection between metacognition and self-regulation.

Literature focused on metacognition and young children, including the writings of Vygotsky, describe the close relationship between metacognition and self-regulation and with self-regulated learning (Fox & Riconscente, 2008).

For Vygotsky, metacognition and self-regulation are completely intertwined, the intentionality implied by self-regulation requires consciousness and the control required for consciousness implies self-regulation. A further aspect of metacognition is awareness of the structure of one’s own thought processes and of how to direct and control one’s thoughts” (p. 383).

Vygotsky, who believed that metacognition was a mainly verbal activity, and Piaget, who viewed metacognition as involving both conscious awareness and the capability of communicating one's rationale (Fox & Riconscente, 2008), both believed that children were not capable of metacognition until the ‘age of reason’ which Piaget defined as between six and eight years of age with Vygotsky placing the age much later into adolescence (Fox & Riconscente, 2008). Research studies have since shown that children as young as 18 months have been able
to exhibit spontaneous error-correction strategies when solving problems and that three-year olds have the capacity to monitor their problem-solving behaviour (Robson, 2010).

Having the opportunity to reflect on their learning through a process of co-constructing pedagogical documentation allows children to participate in ‘sustained shared thinking’ or SST and is heavily influenced by Vygotsky’s zone of proximal development or the range of what a child can do unassisted to what they are able to do with the help of another (Siraj-Blatchford, 2009). The adult’s role in SST is to ‘co-construct the curriculum, as both the adult and child collaborate or take turns in influencing its direction’ (Siraj-Blatchford, 2008, p. 8). Engaging in sustained shared thinking, which was first identified in the Effective Provision of Preschool Education (EPPE) Research Project (Siraj-Blatchford, et al, 2002) has been associated with high levels of child achievement and is now included in the Early Years Foundation Stage (EYFS), the curriculum framework guide for England; however, the research conducted by Siraj found that episodes of sustained shared thinking did not happen very frequently (Siraj-Blatchford, 2010). Although this research underscores the importance of sustained shared thinking between educators and children, there is limited research to date that demonstrates how child-initiated play activities provide opportunities for adults to become engaged in children’s play to the extent that they can participate in shared sustained thinking (Stanley, 2011). Would co-construction of pedagogical documentation serve such a purpose? This type of co-reflection has the advantage of not interrupting a child’s freely chosen activity and it highlights this activity at a time when both adult and child have the time and the motivation to participate in a sustained conversation.

As a means of co-construction of pedagogical documentation, this research study invited educators and children to reflect on past activities using a photo and carefully selected prompts as a catalyst for reflective dialogue. This reflective process is heavily influenced by Forman’s
concept of revisiting as described in *The Hundred Languages of Children* (2012). Forman, who describes himself as a ‘social constructivist,’ defines the ‘revisiting’ process as one that “involves the teacher showing a photo (or video) and then asking the children to reflect on their intentions, purposes, expectations and assumptions” (p. 256). He continues:

…but revisiting is more than remembering. Revisiting is just that, a return to a place to re-establish or discover the significance of that place…you look for patterns to create meaning; you look for causes and relations that were not obvious when you were resident in that experience. (p. 256)

According to Forman, “the focus is on memories about children’s thinking, not photographic evidence of an answer” (p. 257). He states, “Photographs should be treated as a door to enter the world of possible events, not as a window that pictures a single time and place” (p. 257).

**Summary**

The goal of this research study was to examine factors that influence and are influenced by the co-construction of pedagogical documentation with young children. The literature tells us that the introduction of pedagogical documentation in preschool settings is likely one of the most influential characteristics of the Reggio Emilia approach (Katz & Chard, 1996). Pedagogical documentation:

promotes the idea of the school as a place of democratic political practice, by enabling citizens, young and old, to engage in important issues, such as childhood, child care, education and knowledge…. but…do teachers have the courage to be open to the unexpected and unpredictable? (Edwards, et al., 2012, p. 226)
Documentation contributes to the extensiveness and depth of children’s learning from their projects (Katz & Chard, 1996). It provides ‘qualitative evidence of children’s current thinking and learning and leads to the development of new strategies to assist children in reaching the next learning steps (Bowne, et al, 2010). The literature indicates that pedagogical documentation is an effective tool for parental engagement (Goldhaber & Smith, 1997; Kline, 2008; MacDonald, 2007; Wien, 2013). It appears that educators understand all of these benefits of documentation; however, many have expressed challenges in producing it (Kroeger & Cardy, 2006; Tarr, 2010; Wien, et al, 2011). By encouraging the co-construction of pedagogical documentation between adults and children, barriers to the production of documentation may be, in some ways, addressed. If children were allowed to be actively engaged in their own development, ‘co-constructing and creating knowledge rather than being perceived as passively observed objects to be filled with knowledge’ (Alcock, 2000, p. 18), would ECEs be more likely to produce relevant and insightful documentation that would result in a program that is more reflective of children’s interests and needs and more self-awareness on the part of the educators?

To actively involve children in the co-construction of pedagogical documentation, some attention must be paid to what is meant by active involvement and what the outcomes are of this type of involvement. The literature tells us that there are various typographies describing involvement (Thomas, 2007) and it underscores the importance of ensuring that children’s engagement is meaningful and based on shared experiences (Siraj-Blatchford & Sylva, 2004).

This research study examined how the co-construction of pedagogical documentation affects educators’, parents’ and children’s ability to reflect upon their learning experiences. Reflective thinking/practice is a basic tenet of child centred, play-based programs that use an emergent curriculum approach to planning. Planning using an emergent approach is complex
(Wood, 2007) and requires that educators be comfortable with not always getting it right. By actively collaborating with children in the construction of pedagogical documentation, educators may become more at ease with sharing the responsibility of planning ‘what comes next’ with the children, using dialogue, questioning, reflection and collaboration as part of their repertoire of planning using an emergent curriculum approach. By participating in this type of sustained shared thinking, educators may be helping to create a climate of respect and reflection where children are seen as powerful agents of their own learning and co-constructors of knowledge and culture.
Chapter Three - Theoretical Influences

This research is guided by a predominantly socio-constructivist framework, but is also viewed through both a developmental and critical lens. The ontology of the socio-constructivist research paradigm is one of relativism, meaning that there are many interpretations to one inquiry and meaning is constructed through interaction (Guba, 1990). This model, as described by Dodd-Nufrio (2011) states that ‘both children and adults co-construct their knowledge through interactions with people and the environment’ and “promotes an image of the child as a capable participant in learning” (p. 236).

The theorists and educators that have most influenced the theoretical framework of this research study are those who have had a significant impact on the field of early childhood education over the last century, specifically, Jean Piaget, Lev Vygotsky, and Loris Malaguzzi. In addition to these well-known giants in the area of early learning, this research has been influenced by the more recent critical theorists and writers such as Hillevi Lenz-Taguchi, Glenda MacNaughton, Peter Moss, and Gunilla Dahlberg.

Vygotsky (1896-1934)

One of the most distinctive strengths of Lev Vygotsky’s sociocultural theory according to Mercer and Howe (2012) is that it “explains not only how individuals learn from interactions with others, but also how collective understanding is created from interactions amongst individuals” (p. 13). Placing an emphasis on the interaction with others is key to any work that is influenced by Vygotskian theory. Adherents to Vygotskian theory view thinking not in terms of an internal activity of childhood but one that results from the child in social activities with others (DeVries, 2000; Fox & Riconscente, 2008), emphasizing that children co-construct knowledge through interactions with other people and the environment, and viewing children as
capable participants in learning (Dodd-Nufrio, 2011). This co-constructed knowledge, which comes about through authentic and reflective dialogue, is seen as “the creation and shared property of members of communities” (Mercer & Howe, 2012, p. 12). This climate of sharing and knowledge co-construction; however, requires patience and effort on the part of the educator, according to Mercer and Howe (2012), who observe that:

The development of shared understanding and norms of behaviour takes time, but it can be achieved…the generation of different patterns of dialogue depends on a teacher establishing the right classroom climate for talk, together with some new, different ground roles [as compared to traditional, adult-directed teaching]. (p. 18)

Tay-Lin (2013) agrees that working collaboratively with children in the co-construction of knowledge is worth the effort. She declares that “Integrating socio-cultural theory within a Vygotskian framework, the employment of co-construction within child-friendly tasks has the potential to emerge as a useful strategy, which teachers can utilize to develop the ‘tools of the mind’” (p. 78).

A prominent Vygotskian concept that continues to resonate with educators is the ‘zone of proximal development’ (ZPD). This zone is described as ‘the distance between the level of independent performance and the level of assisted performance’ (Bodrova & Leong, 2015). Stanley (2011) describes ZPD as a context where “a child’s understanding is assisted by a more knowledgeable person” (Stanley, p. 12). Vygotsky himself referred to this process of co-construction as ‘collaborative cognitive activity’ and ‘assisted discovery’ (Vygotsky, 1932, as quoted in MacNaughton, 2004, p. 46) and saw imaginative play during the early childhood years as a means of providing opportunities for children to “transform their cognitive processes such as perception, attention, memory, and thinking (Bodrova & Leong, 2015) as well as a vehicle to
support children in their ability to ‘decenter’, or look at situations through other’s eyes. Bodrova and Leong (2015) believe that this ability to decenter eventually turns inward, leading to the development of reflective thinking. Therefore, the process of reflection begins first as an interaction between adults and children who then learn to internalize this ability. This will, as a result, promote critical thinking throughout their lives.

**Piaget (1896-1980)**

Jean Piaget, who provided the fields of early childhood education and psychology with the constructivist theory of cognitive development, was a contemporary of Vygotsky, although the two had never met (Elkind, 2015). While their theories differed in fundamental ways, with Vygotsky criticizing Piaget’s work for its emphasis on children’s construction of their own knowledge and understanding even in the absence of adult explanation, both Piaget and Vygotsky were in agreement that “when one speaks of child development, one must give attention to social factors” (DeVries, 2000, p. 190). Piaget responded to Vygotsky’s criticisms, long after Vygotsky’s untimely death at the age of 38, stating that Vygotsky had misunderstood some of Piaget’s basic constructs such as egocentrism and that he deeply regretted never meeting Vygotsky so that they could have discussed their differences (Elkind, 2015).

Garhart Mooney (2013) tells us that Piaget was fond of the expression ‘construction, not instruction’, meaning that children learn best when they do the work themselves rather than being provided an explanation by adults. This is, to some extent, in opposition to Vygotsky’s emphasis on the ‘more experienced other’ who is seen as necessary to children’s construction of knowledge. DeVries (2000) quotes Piaget (1965) as saying
In so far as the adult can cooperate with the child, that is to say, can discuss things on an equal footing and collaborate with him in finding things out, it goes without saying that his influence will lead to analysis. (Piaget, 1965, p. 194, as cited in DeVries, 2000, p. 203)

She then underscores this theoretical tension by asserting that “These ideas lead Piagetian constructivist educators to the view that teachers should minimize the exercise of unnecessary authority to the extent practical. This philosophy is in contrast with the view of Vygotskyians that ideal adult-child partners are unequal” (Devries, 2000, p. 203).

**Malaguzzi (1920-1994)**

Loris Malaguzzi was one of the originators of a system of public schools in Reggio Emilia in Northern Italy. His work was influenced by both Vygotsky and Piaget, among others. What makes him stand out from these other theorists was his ability to put theory and pedagogy into practice in what would become known as one of the most progressive systems of preschool education in the world. For over thirty years, Malaguzzi developed a pedagogy of “relations, listening and liberation” (Moss, 2016) through his direct work with infants, toddlers, preschoolers, and their families in the Reggio Emilia municipal system of preschool education. Due, in part, to Malaguzzi’s strong belief in the role of parents in the education of their young children and families as an essential component of the education process, the involvement of parents in these municipal preschools are one of the defining characteristics of the Reggio Emilia approach.

The ideas and skills that the families bring to the school and, even more important, the exchange of ideas between parents and teachers favor the construction of a new way of educating and help teachers to view the participation of families not as a threat but as an

Moss described Malaguzzi’s pedagogy of one in which “children and adults (were) working together to construct knowledge, always in dialogic relations with others” (p. 173). Malaguzzi, when asked about how he saw children’s learning taking place within the rich relationships created among Reggio educators and children, answered that “Values should be placed on contexts, communicative processes, and the construction of a wide network of reciprocal exchanges among children and between children and adults” (Malaguzzi as quoted in Edwards, Gandini, & Forman, 2012, p. 45).

Malaguzzi was clear on what type of pedagogy he did not want – one that he referred to as ‘prophetic pedagogy’ which was a “pedagogy reduced to a simple equation of predetermined inputs and outputs, obsessed with linear stages of development” (Moss, 2016, p. 173). His pedagogy, as described by Moss (2016) was one of:

…children and adults working together to construct knowledge (and values and identities) – meaning-making through processes of building, sharing, testing and revising theories, always in dialogic relationships with others…it is a pedagogy that welcomes the unexpected and the unpredicted, that values wonder and surprise. (p. 173)

The practice of pedagogical documentation, which is one of the major contributions of the Reggio Emilia preschool system, is emblematic of the values espoused by Malaguzzi’s pedagogical approach. Specifically, it has a focus on meaning-making and sharing through dialogic relationships between and among adults and children and a deliberate focus away from using this practice as a way to assess linear stages of development.
Although Malaguzzi was grateful for Piaget’s contributions to the field, seeing him as one of the first theorists to take children seriously (Edwards, et al., 2012), he felt that Piaget’s constructivism isolated the child and undervalued the role of the adult in promoting cognitive development. He did see similarities between his pedagogy and Piaget’s constructivism in that the ultimate aim of teaching is to “provide conditions for learning” (Edwards et al., p. 57). Malaguzzi felt that he had gone beyond the Piagetian view of children as constructing knowledge from within, almost in isolation. He contended that:

In summary, our image of children no longer considers them as isolated and egocentric, does not see them only engaged in action with objects, does not emphasize only the cognitive aspects, does not belittle feelings or what is not logical, and does not consider with ambiguity the role of the affective domain. Instead, our image of the child is rich in potential, strong, powerful, competent, and most of all, connected to adults and other children. (Malaguzzi, 1993, as translated by Gandini, 1993, p. 10)

Speaking on Vygotsky’s influence, Malaguzzi declared that “Vygotsky’s suggestion (ZPD) maintains its value and legitimizes broad interventions by teachers. By our part in Reggio, Vygotsky’s approach is in tune with the way we see the dilemma of teaching and learning and the ecological way one can reach knowledge” (Edwards, et al., p. 58). Malaguzzi; however, did not feel beholden to one main theoretical construct, noting in his interview (1988-1992) with Gandini in The Hundred Languages of Children (2012) that:

The effect of theories can be inspiring and onerous at the same time. This is especially so when it is time to roll up our sleeves and proceed with educational practice…but there are further fears, such as those of getting lost in a blind empiricism that can lead to a break with the connections to the necessary theoretical, ideal, and ethical principles (and) being troubled
by the challenge of new theories and approaches that bring into question your own training and choices. (p. 59)

**Critical theorists**

Critical theorists in the field of early childhood education question dominant discourses related to pedagogy such as the power dynamics inherent in adult-child relationships and child development as described by Western theorists – interrupting what they would view as hegemony promoted and espoused by developmental theorists (such as Vygotsky and Piaget). Lenz-Taguchi, a reconceptualist scholar from Stockholm University, explains that:

> Developmental psychology and constructive learning theories outline increasingly refined stages of cognitive development in a growing range of cognitive knowledge constructs and abilities that are seemingly neutral and applicable to everyone…. Maybe the dominant constructivist, cognitive, and developmentally appropriate practices that we conceive as uniquely ‘child-centred’ and ‘inclusive’ are just as one-dimensional as the ones that they sought to replace? (Lenz-Taguchi, 2010, as quoted in Yelland, 2010, p. 16)

As pedagogues, academics, and philosophers who think differently about the ways educators work with children and their families, critical theorists create a space for what Lenz-Taguchi calls a “non-hierarchical, multi-dimensional system that incorporates inventive and creative pedagogies” (Lenz-Taguchi, 2010, as cited in Yelland, 2010, p. 8). By ‘problematising’ the process of learning and teaching, critical theorists require that we question our truths and our well-known practices and assumptions. This divergence of thought and practice influences me as a researcher, making room for the possibility of co-learning, along with the research participants, about what happens when typical practice (documentation) is disrupted, which introduces a certain level of discomfort and disequilibrium. The central element of this study is
an invitation to educators to think and act differently in terms of their typical practice of
documentation. The research participants are being asked/invited to move out of their comfort
zone. But, as Lenz-Taguchi (quoting Deleuze and Guattari, 1994) emphasizes:

What we experience as we move away from habits and thinking and doing on a ‘line of
flight’, demands us to think and live – do our practice – in new ways. As teachers, we
should try to be attentive to and make use of the ‘new, remarkable, and interesting that
replaces the appearance of truth. (2010, p. 23)

Examining relationships of power in early learning settings and working within
postmodern and postcolonialist perspectives, Cannela (2001) is quoted in MacNaughton (2004)
as arguing that ageism is created when adult/child categories are used in ways that privilege adult
meanings over those of children (p. 50). Followers of Foucault, a French philosopher (1926-
1984) known for his discussions of power, knowledge, and discourse, insist that “Examining the
impact of power on relationships is crucial to promoting anti-oppressive practice” (Leese, 2011,
p. 145).

Tay-Lin (2013) explores the reconceptualist views of children as she examines ways of
privileging children’s voices in research. She notes that:

These scholars (reconceptualists) (view) children as active, competent, and reflexive
constructors of their own worlds, and they have argued that children have a rightful place
as social actors capable of influencing societal matters and policies that directly impact
them. This has involved a reconceptualization of children and childhood by seeing the
child as actively engaging the world and adeptly constructing ideas and theories.” (Tay-
Lin, 2012, p. 67)
Critical theorists such as Dahlberg, Moss and Pence (2013) have described pedagogical documentation as “a practice to encourage a reflective and democratic pedagogical practice” (p. 152). According to Dahlberg:

Through documentation, we can more easily study and ask questions about our practice. What image of the child do we hold? Which discourses of teaching and learning have we bought into? What voice, rights, and respect do children receive in our early childhood programs? Do we merely talk about ‘the competent child’ ‘creativity,’ ‘participation,’ and ‘reflective practice,’ or do these ideas actually permeate what we practice? (Dahlberg, in Edwards et al., 2012, p. 228).

Dahlberg, Moss, and Pence (2013) warn that pedagogical documentation is not to be confused with child observation, which has at its core the purpose of assessment. They describe pedagogical documentation as a way to “see and understand what is going on in the pedagogical work and what the child is capable of without any predetermined framework of expectations and norms” (p. 154). When educators focus on outcome-driven assessment and practice, they are enforcing strategies of ‘complexity reduction’ as described by Lenz-Taguchi (2010).

It appears to be against our better judgement, but the more we seem to know about the complexity of learning, children’s diverse strategies, and multiple theories of knowledge, the more we seek to impose learning strategies and curriculum goals that reduce complexities and diversities of this learning and knowing. Policy makers and practitioners look for general structures and one-dimensional standards for practices. (Lenz-Taguchi, 2010, p. 14)

Lenz-Taguchi views pedagogical documentation as “a creative actualising of the event, making it ‘material’ in front of us” (Lenz-Taguchi, 2010, p. 93). She describes how this process
makes thinking and rethinking about the event possible, even in ways that can transform it by reading it from other positions, opening and allowing multiple possibilities for interpretation. (Lenz-Taguchi, 2010). Dahlberg, who views pedagogical documentation as providing a possibility for early childhood education to gain new prestige and legitimacy in society (Edwards, et al., 2010, p. 226), sees this practice as embodying the value of subjectivity, stating that “there is no objective point of view that makes observation neutral. It is rather a base for nurturing negotiation by making perspectives explicit and contestable through documentation with others, be they children, parents, educators, politicians or other citizens” (Dahlberg in Edwards, et al., 2010, p. 226). As well, Dahlberg outlines the practical uses of pedagogical documentation, describing how it can be kept and revisited as a means to review early events. She suggests that “By doing so, it creates not only memories but also new interpretations and reconstructions of what happened in the past” (Dahlberg, 2006, in Edwards et al., 2010 p. 228).

Critical theory contributes to the theoretical framework of this research by imploring me, as researcher, to apply a critical lens when considering what MacNaughton (2005) describes as the ‘regimes of truth’ that impact the practice of early childhood educators and which can sometimes create an imbalance of power in adult-child relationships. Questioning ‘tried and true’ practices makes it possible for alternative practices to develop and emerge. Disrupting dominant discourses allows me to critically examine the power dynamic inherent in adult-child relationships as well as practitioner-researcher relationships.

Summary

Therefore, like Malaguzzi, this research is influenced by the socio-cultural theory of Lev Vygotsky and the constructivist theory of Jean Piaget. Vygotsky’s emphasis on the social nature of learning, the important role that adults and more experienced others play in shaping and
supporting children’s knowledge development, and the vital role of imagination and play on children’s knowledge and self-knowledge lay the foundation for an examination of the interplay between adults and children as they work together to co-construct documentation. Piaget’s fundamental premise that children construct their own knowledge (‘construction not instruction’) helps to temper the adult-directed nature of adult-child interactions as espoused by Vygotskian theory. This casts children as expert learners in their own play situations, and consequently, experts in the reflection and re-visiting of these events. Malaguzzi’s view of children as rich, competent agents in their own learning, as well as the development of pedagogical documentation as a vehicle for reflection, wonderment, and deep inquiry influence and inspire me, as researcher, and consequently the participants, to examine our own values and practices related to the development and construction of documentation. And finally, the critical theorists remind me to ‘question my truths’ paving the way for familiar values and practices to be re-examined, disrupted, and deconstructed in ways that create disequilibrium and ultimately insight into what I thought I knew and what I have yet to learn.
Chapter Four – Methodology

Introduction

This chapter describes the methodological processes used in this study, situating them within the literature as well as within the research process itself. The methodological elements to be addressed include a description of Design-Based Research (DBR); the research questions; research design; data collection, which includes a description of the method along with a discussion of the tools and methods used for data collection; a description of how data were analyzed; and a description of the participants, including an explanation of the selection processes and inclusion criteria. Finally, this chapter includes a discussion on trustworthiness and ethical considerations.

Design-Based Research

This research study used a qualitative methodological approach referred to as design-based research. Design-based research (DBR), which has also been referred to as design-experiments or design research, is an iterative process characterized by a multi-methods approach and a collaborative partnership between researchers and practitioners (Anderson & Shattuck, 2012; Cobb, Confrey, diSessa, Lehrer & Schnauble, 2003). Design experiments are generally situated in real educational contexts and focus on the design and testing of a significant intervention (Anderson & Shattuck, 2012) which is, in this case, the introduction of a co-constructed approach to pedagogical documentation. According to Cobb et al. (2003), design-based research results in a pragmatic theory that ‘must do real work’ (p. 10) meaning that the research would ‘speak directly to the types of problems that practitioners address in the course of their work’ (p. 11). One of the clear benefits of using DBR, which is ‘concerned with an impact on practice’ (McKenney & Reeves, 2013), is the involvement of frontline practitioners in a real-
world setting, incorporating their expertise during the research process (Gorard, Roberts, & Taylor, 2004). Therefore, the research findings are more likely to be directly applicable to early learning settings (Gorard, et al, 2004). This practical aspect of the DBR methodology makes it well suited for a research study such as this one which aims to examine factors related to a particular practice (co-constructed documentation) used by early childhood educators in early learning settings.

DBR is generally characterized as identifying both theoretical and practical challenges. (Cobb, et al., 2003; Jan, Yee, & Tan, 2010). “Design experiments are both pragmatic as well as theoretical in orientation in that the study of function – both the design and the ecology of learning – is at the heart of the methodology” (Cobb, et al., 2003, p. 9). The identification of these challenges helps to inform and transform educational interventions and techniques. In this way, DBR is appropriately used for an examination of factors influencing co-constructed pedagogical documentation in early learning settings, as the challenges and considerations facing educators in attempting this approach can be categorized as both theoretical and practical. According to Cobb, et al. (2003), “The theoretical products of design experiments have the potential for rapid pay-off because they are filtered in advance for instrumental effect. They also speak directly to the type of problems practitioners address in the course of their work” (p. 11).

Design-based research is similar to action research in that both of these experimental approaches are concerned with complex real-world challenges and both involve a collaboration with front-line practitioners as part of the research process. DBR differs from action research in that it is the researcher who initiates the design-based research process for the purposes of identifying educational problems and, through an iterative research process, examines and proposes solutions which can be transformed into broad-based educational practice (Reeves,
Herrington, & Oliver, 2005). With action research, the research study is initiated by practitioners, based on a problem specific to their own practice. These practitioners will then engage researchers as needed and the solutions, when generated, are often specific to their own circumstance.

**Research Questions**

**Main research question.** The primary research question guiding this research study asked: According to the experiences and perceptions of educators, parents, and children, what key factors contribute to and result from the effective co-construction of pedagogical documentation by educators and children in play-based early learning settings?

**Sub-questions.** Four sub-questions were developed in an effort to organize and more closely examine the factors related to the co-construction of pedagogical documentation. Each of the following questions were examined in the context of the co-construction process:

1. What factors contributed to educators’ understanding of children’s developmental strengths, needs, and interests?
2. What factors contributed to educators’ ability to be reflective and intentional in their practice?
3. What factors influenced children’s level of metacognition?
4. What factors influenced parents’ understanding and engagement in their child’s play-based learning?

For the purposes of this study, play-based learning was defined as a pedagogical approach that recognizes that children learn through play with play being defined as an activity that is intrinsically motivated, engaging, voluntary, and focused more on the process than the product (Gestwicki, 2017, p. 34). The adult’s role within a play-based environment is to facilitate,
support, and extend play through intentional decisions around the design of the space, the selection of materials, and the planning of activities based on the adult’s observations, documentation and assessment of the children’s interests and abilities exhibited during their play.

The purpose behind these questions and this research study was not to develop a specific model of co-constructed pedagogical documentation but to examine the many factors that surround the attempts to participate in a co-constructed process by both children and adults. As such, there was no prescribed process for practitioners to follow and no specific training provided to participants. As a result, and consistent with a socio-constructivist research paradigm, the participants and I learned together about the various supports, obstacles, influences, outcomes, challenges, and surprises that occurred when children and educators co-constructed reflections and documentations about specific events during the six-month period of study.

**Research Design**

To answer the research questions, a design-based research (DBR) study was developed to examine factors associated with the practice of co-constructing pedagogical documentation with children. This DBR study involved the collection of data related to factors associated with the co-construction of pedagogical documentation in three play-based, early learning settings in the Halifax Regional Municipality in Nova Scotia. The study was carried out over a six-month period, January – June 2017. Participants included seven (7) early childhood educators working in three separate play-based early learning and child care centres as well as the children in the direct care of these educators (64 children at three different sites) and their parents. (See Table 1, for a synopsis of the demographics associated with the ECE Participants).
### Table 1: ECE Participants

<table>
<thead>
<tr>
<th>Participant</th>
<th>Years’ experience</th>
<th>Level Classification</th>
<th>Age group/position</th>
<th>How long in this position?</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 1</td>
<td>21</td>
<td>Not classified</td>
<td>Support staff</td>
<td>7 yrs</td>
<td></td>
</tr>
<tr>
<td>ECE 2</td>
<td>16</td>
<td>Level 3</td>
<td>ECE (3-5 yr olds)</td>
<td>9 mos</td>
<td>left job at mid-point; withdrew from study</td>
</tr>
<tr>
<td>ECE 3</td>
<td>17</td>
<td>Level 1</td>
<td>ECE/Asst. Dir. (3-5 yr olds)</td>
<td>8 yrs</td>
<td></td>
</tr>
<tr>
<td>ECE 4</td>
<td>17</td>
<td>Level 2</td>
<td>ECE (3-5 yr olds)</td>
<td>1 yr</td>
<td>left job at mid-point; withdrew from study</td>
</tr>
<tr>
<td>ECE 5</td>
<td>1.9</td>
<td>Level 3</td>
<td>ECE (3-4 yr olds)</td>
<td>1.3 yrs</td>
<td></td>
</tr>
<tr>
<td>ECE 6</td>
<td>2.7</td>
<td>Level 3</td>
<td>ECE (4 yr olds)</td>
<td>1.3 yrs</td>
<td></td>
</tr>
<tr>
<td>ECE 7</td>
<td>40+</td>
<td>Level 1</td>
<td>Director/ECE (3-5 yr olds)</td>
<td>29 yrs</td>
<td>Joined study midpoint</td>
</tr>
</tbody>
</table>

Once the ECE participants were selected, the purpose of the research was discussed with them at an on-site information session (one session per site). (For more information on the selection criteria, see ECE Participants section in this chapter). During these on-site sessions, the ECE participants were provided with information relating to the co-construction of pedagogical documentation along with a question/challenge meant to provoke, stimulate, and guide their practice during the six-month research period. Specifically, the provocative question was ‘What if documentation was constructed for the children, with the children, and by the children?’ The purpose of this question/provocation was to deliberately disrupt the typical routine used by the ECE participants when creating pedagogical documentation in their early learning setting. This
type of disruption is characteristic of certain design-based research studies. “Interventionist ethnography, in which DBR studies perturb typical learning settings by introducing evocative, theory-influenced designs, then draw out implications for new theoretical ontologies of phenomena, is an intriguing way to frame a potential advantage of DBR” (Dede, 2004, p. 111).

The provocative question was based in a theoretical construct that positioned children as active and capable participants in their learning, influenced by the works of Malaguzzi, Vygotsky, and Piaget. It was influenced, as well, by the pedagogy proposed by the critical theorist, Lenz-Taguchi (2010):

We need to think about pedagogical documentation as something very different from the diagnostic tools we have been using and which are reappearing in different forms today. We are not psychologists, doctors, or scientists as we practice pedagogical documentation; rather we are collaborative creators and inventors of learning events with children and our colleagues. We are whole-heartedly engaged in a collaborative process of constructing new knowledge with and about specific phenomena and children and ourselves as teachers, and thus exploring our own limits and possibilities at the same time. Hence, this is about being active rather than reactive, to reconnect to the above. (p. 94)

The underlying assumptions in this provocative question related to the current practice of the educators who, in their baseline interviews, questionnaires, and subsequent conversations, discussed how their current documentation was designed primarily for an adult audience and was created, for the most part, by the educator, with limited input from the children. To start the educators on this research journey, they were each provided with sample reflective dialogue prompts to use when inviting children to participate in the co-construction of documentation
(Appendix B). Each site was also presented with a book as a gift for participating. The book, entitled, *Documenting Children’s Meaning: Engaging in Design and Creativity with Children and Families* (Avery, Callaghan & Wien, 2016), was given to the director at each site for use by all staff members at the centre. This book served as a provocation as well as a resource for participants and their colleagues; however, participants were not required to read it nor were they asked about it during the research study period.

The teaching colleagues of the ECE participants were aware that this study was taking place and that the ECE participants would be trying a new approach to documentation so there was minimal risk of this new approach being censured or criticized by their peers. As well, each participant had the full support of the centre director in terms of their participation in the study. The participants were free to discuss with their colleagues what they were doing and none of the participants reported any difficulties or confusion with partner teachers. In two of the sites, the two ECE participants were partner teachers prior to the study so they embarked on this research journey together. In the remaining site, the ECE participants taught in separate classrooms with different age groups. Each ECE participant at this site notified their individual partner teachers that they would be attempting a co-constructive approach to documentation.

An invitation to hold information sessions for parents and non-participating staff members, facilitated by me, was extended to each of the sites so that others could learn more about the study and have a forum to have any of their questions answered. One site accepted this invitation and an evening information session was held for parents and staff members at this centre. All centres made information on the study available to staff members and parents.

The purpose behind this study was to determine not necessarily best practices in co-construction but to identify factors that supported or hindered the co-construction journey and to
identify ways in which the journey itself affected the educators, children, parents, and the learning environment. The process itself was purposefully not prescriptive, allowing the educators to develop their own methods of co-construction, despite and within their occasional moments of confusion and uncertainty regarding the actual process. Therefore, limited directions were given to the educators regarding the process of co-construction (where, when and how to do it), except for the guideline to use only a few of the suggested prompts in each co-construction session (not all at once) to follow the child’s lead in the co-construction process, and write with a child audience in mind.

Throughout the six-month research period, educators completed three questionnaires (Appendix C), participated in a total of five semi-structured interviews (Appendix D), supplied samples of pedagogical documentation (pre-study examples and examples of their attempted co-construction) and participated in two short (one-hour) on-site visits which took place in their playrooms. Parent participants were asked to complete two questionnaires (Appendix E) during the study period, one at the beginning of the study and one at the end. Child participants were asked (by the educators) to share copies of their co-constructed documentation with me throughout the study period and one group of children was invited to participate in a videotaped focus group at the end of the study. (For more information on the development of the data collection tools, see ‘Data Collection’ in this chapter.)

According to Morse and Niehaus (2009), the use of a number of data gathering tools is desirable and can be described as a mixed-methods approach, even if the tools and the methods are considered only qualitative in nature.

The use of mixed method design makes the study more comprehensive or complete than if a single method was used. Mixed method research is therefore a systematic way of
using two or more research methods to answer a single research question. It includes using two or more qualitative or quantitative methods or it uses both qualitative and quantitative methods. (p. 9)

Using this definition, this study could be considered a mixed-methods, or multiple methods design.

Design-based research is characterized by both a collaborative partnership between researchers and practitioners as well as by the iterative process that occurs as theories and design principles become more refined (Anderson & Shattuck, 2012). The series of questionnaires and semi-structured interviews administered during the six-month period of research provided participants and me with opportunities to discuss and debrief on the co-constructive nature of the pedagogical documentation process, allowing the “tools and conceptual models function to help us understand and adjust both the context and the intervention so as to maximize learning” (Anderson & Shattuck, 2012, p. 17). Conducting research within a social constructivist model places an emphasis on the stories and practices of the participants in an effort to understand how they make sense of their worlds. This model acknowledges the important work of the researcher vis à vis how questions are asked with a recognition that meaning is constructed through interaction (Humble, n.d.).

Participants

There were three categories of participants in this study- early childhood educator participants, parent participants and child participants. This section will provide detail on each of these groups.

Early Childhood Educator (ECE) Participants. “...in design-based research, practitioners and researchers work together to produce meaningful change in contexts of
practice” (Design-Based Research Collective, 2002, p. 6). ECE participants were selected using a combination of snowball and criterion-i (inclusion) sampling. Snowball sampling ‘identifies cases of interest from people who know people who know what cases are information-rich’ (Creswell, 2013). Criterion-i sampling, or criterion of inclusion, describes a “method of purposeful sampling where the criterion used is related to the individual’s role, either in the research project or in the agency (centre); in other words, criterion of inclusion in a certain category (criterion-i)” (Palinkas, Horwitz, Green, Wisdom, Duan, & Hoagwood, 2015, p. 537).

For both types of purposeful sampling, there were predetermined criteria significant to the research study that needed to be considered in the selection of participants. Specifically, the participants were to be working with a specific age group (3-5-year olds) in a regulated child care setting located in the Halifax Regional Municipality (HRM). As well, participants were to be working in a setting that used an emergent approach to curriculum planning and that incorporated documentation into their practice.

Because I was new to the HRM area, having lived there for less than four months at the beginning of this research study, and unfamiliar with the local early childhood education (ECE) community, I spoke with some well-known leaders in the local community to identify possible sites based on the specific criteria outlined above. Snowball sampling was used to identify suitable child care centres, three of which would become the eventual research sites. Out of the names of the sites provided, the three sites were eventually selected based on the willingness of the centre director to make the centre available for the research study, and the geographic location of the centres (two urban, one rural). To determine the willingness of the centres to join the study, I contacted each centre director by email, introducing myself and the research study, asking if they would be interested in participating.
Once three centres had indicated that they were prepared to proceed, I made an appointment to visit each site to discuss the project further and to meet the participants for the study (two per site), as selected by the centre director based on the criteria as described by me, as researcher. Specifically, centre directors were asked to select educators from their staff members who were interested in volunteering for the study; who worked with three to five-year olds and who were familiar with the concept of documentation of children’s learning. As well, participants needed to be available for the six-month study period, meaning that they were permanent staff members with full time positions who were not expected to take extended leave during the research study. Once participants were identified, they were provided with consent forms that included further information about the research study (see Appendix F).

There were seven individual ECE participants. All participants identified as female. All held full-time positions in centre-based regulated child care settings with the targeted age-group of 3-5-year olds. Five of the seven held the position of ‘preschool teacher’ or ‘ECE’, meaning that they worked directly with children and were included in the ratio of 1:8 in their classroom. One of the participants (ECE 7) was the director of the centre but also spent time ‘on the floor’ working directly with the preschool aged children and was counted in ratio during that time. One of the participants (ECE 1) was identified as ‘support staff’, meaning that she was generally not counted in ratio but worked on an ‘as-needed’ basis with all age groups in the centre (infants – school age). During the time period of the research study, she worked directly with the preschool aged children in all aspects of the co-construction process.

Nova Scotia uses a system of classification to distinguish levels of training of staff members working in regulated child care settings. Child care regulations require that all staff members working directly with children in licensed child care programs have an Entry level, or
Level 1, 2, or 3 Classification. Entry level classification can be obtained through the completion of orientation training (16 modules completed on-line); Level 1 classification can be obtained through the completion of a one-year post-secondary ECE certification or a combination of the orientation course plus course work and workplace training; Level 2 classification can be obtained through the completion of an ECE post-secondary diploma; and Level 3 classification refers to a bachelor’s degree in early childhood education or Level 2 plus an undergraduate bachelor’s degree. Two participants in this research study held Level 1 classification; one participant was classified as Level 2; three were classified as Level 3; and one identified her classification level as ‘in negotiation’.

Experience levels among the seven ECE participants ranged from 1 year 9 months in the field to 40+ years in the field. All participants had some experience in the area of pedagogical documentation, with five stating that they practiced it occasionally, and two stating that it was a regular part of their practice. When asked at the beginning of the study how confident they were in producing and displaying pedagogical documentation, four stated that they were ‘somewhat confident’ and three categorized themselves as ‘confident’. None of the participants selected ‘not confident at all’ or ‘very confident’ when completing the initial questionnaire which provided baseline data on each of the ECE participants.

Because design-based research is implemented in real-life situations, circumstances do not always play out in favour of the research or the researcher. As Collins, et al. (2004) observed, “Design experiments have some fundamental limitations. Because they are carried out in the messy situations of actual learning environments…there are many variables that affect the success of the design, and many of these variables cannot be controlled” (p. 19). As it turned out, two of the participants left their positions at the midpoint of the research study to accept
positions in other child care centres. Staff turnover in the early childhood sector in Canada is notoriously high (Flanagan, Beach, & Varmuza, 2013) so, although disappointing, it was not unusual for this type of circumstance to occur. To help remedy this situation, another ECE working at one of the research sites, who was familiar with the study and who had participated in the information session at the beginning of the six-month period, offered to become a participant, thereby joining the study at the three-month mark. Table 1 provides a synopsis of information about ECE participants. A further description of each participant is provided in the section below.

**ECE Participant Profiles**

Based on information provided through the questionnaires as well as information gleaned from interviews that took place over the six-month study period, profiles were developed for each of the ECE participants. These profiles provide context for each of the participants and include information on their levels of experience and qualifications and information relating to their current positions. Participants were asked to describe their philosophical approaches to programming, based on a list of suggested curriculum models and some background information on their familiarity and attitudes regarding pedagogical documentation.

**ECE 1.** ECE 1 has been working in the field of early childhood education for twenty-one years in total, however, left the field for 25 years to work in various positions in community non-profit organizations, rejoining the field six years ago. She does not hold a level of NS ECE classification, meaning she has not had formal post-secondary training in early childhood education. Over the past six years, she has been working as support staff at her current place of employment, a rural, privately owned child care centre serving infants to school-agers. She works closely with children who have extra support needs and, on most days, she ‘goes where
she is needed’ throughout the centre. For the duration of this research study, she worked closely with the preschool age group. When asked to describe her philosophical focus and programming approach on the initial questionnaire, she chose from the following terms from the list of options provided - ‘emergent curriculum’, ‘Reggio-inspired’, ‘developmentally appropriate’, and ‘play-based’. Table 2 provides a summary of the philosophical focus and programming approach of each of the ECE participants.

Pedagogical documentation was described to each of the ECE participants as the practice of combining texts, photos, transcripts of conversations, audio tape, video, drawings, and other media to make learning visible to children, teachers, parents, and the public; for example, learning stories or documentation display panels. ECE 1 stated that she had little prior experience with pedagogical documentation, having first heard of it when she rejoined the ECE field after her 25-year absence. She had participated in some workshops on the topic and was familiar with the term and the concept, having seen it done in her current centre, but had no examples of documentation to show at the beginning of this research study. In her role as support staff, ECE 1 was in the habit of taking notes on her observations of the children, however, these notes remained in her journal and were used in discussion with other staff about specific children’s progress, strengths, interests, and needs. She expressed interest and enthusiasm about being involved in the research study and looked forward to attempting the co-construction documentation with the preschool-aged children.

ECE 2. ECE 2 has sixteen years of experience working in early childhood education and is classified as a Level 3. She works closely with ECE 1 in a rural, privately owned child care centre, serving infants to school-age children, having responsibility for 3-5-year olds. She was in this position for 9 months when the research study began. When asked to describe her
philosophical focus and programming approach on the initial questionnaire, she chose ‘emergent curriculum’ from the list of options provided.

ECE 2 first heard of pedagogical documentation three months prior to the study at a seminar she attended along with her fellow staff members. She described herself, at the beginning of the study, as being ‘very comfortable’ with the process. She brought several examples of her work to the initial interview. She feels that pedagogical documentation ‘validates’ her work with the children and provides opportunities for parents to learn more about what their child does at the centre.

When I do get (to do it), it’s a validating experience for me and I always hope the parents will look at it and question it…and question me. A lot of parents don’t really understand what we do so that is why I like to do it – just to give them an idea of what we’re doing. (ECE 2, Initial ECE interview).

Unfortunately, ECE 2 had to withdraw from the study at the midpoint mark. She left her position at the centre to work at a different child care centre in an administrative capacity. In her final interview, ECE 2 explained how her involvement in the research study to date has “helped me do my job better” and she looked forward to using the co-constructive approach in her new position as a coordinator of a child care centre. “So, when I (start) I’m going to give suggestions on really focusing on what the children see. I’m going to ask them (her new staff) to get the children to tell us what they want to do – what they see. I want to use the reflective prompts to do this. It’s been a great help for me.” (ECE 2, third interview).

ECE 3. ECE 3 has worked in the field of early childhood education for 17 years – eight of these years in her current position. She is classified at a Level 1. She works directly with three to five-year olds in a small, urban, privately owned centre where she is also the assistant
director. Her room has 16 children (older preschoolers). Her partner teacher is ECE 4. When asked to describe her philosophical focus and programming approach on the initial questionnaire, she chose the following terms from the list of options provided - ‘emergent curriculum’, ‘Reggio-inspired’, ‘developmentally appropriate’, ‘project-approach’, and ‘play-based’.

She described herself as being very familiar with the concept of pedagogical documentation, having first heard of it when she came to the centre eight years ago. "Oh, it's definitely a benefit for the program. It enriches the program and it gives real meaning to what the children are doing. Often people are thinking about children just playing but with the documentation it does give value to their play" (ECE 3, Initial ECE interview). She touches on the value that documentation adds to the program, stating that “I create it so it gives value to my own work. It gives value to the children’s work. Parents enjoy it and I hope that it allows children to think a little bit more deeply about the topic” (ECE 3, first interview). In terms of her own comfort level with pedagogical documentation, she describes herself as being comfortable when she documents children’s final product, such as artwork or a block construction, but has more difficulty documenting the processes involved:

Maybe I’m not as comfortable with the open questions or the openness of where something may go. It’s hard not to be the controller of these avenues where I’m thinking about where I want the children to go (with a particular project). So I think that’s a little bit of an uncomfortable time for me, especially when the children might really want to know about something that I’m not familiar with it all. (ECE 3, Initial ECE interview).

ECE 4. ECE 4 has 17 years experience working in the child care field and is classified as a Level 2. At the time of the study, she had been working in her current position with older preschoolers for one year but had worked at the centre for several years prior with the younger
age group. She was a partner teacher with ECE 3 in the small (three classroom) urban centre. When asked to describe her philosophical focus and programming approach on the initial questionnaire, she chose the following terms from the list of options provided - ‘emergent curriculum’, ‘Reggio-inspired’, and ‘play-based’.

ECE 4 described herself as being somewhat comfortable with pedagogical documentation, however, felt that it was not yet ‘second nature’. She first heard of pedagogical documentation through conversations on the topic of the Reggio Emilia approach:

It’s kind of been blurted out here and there but there’s never been any huge, deep discussion on what it is. So, it’s kind of like this idea that we talk about. No one ever gets in the in-depth explanation of what it is and why it is a good thing to do. (ECE 4, Initial ECE interview)

ECE 4 uses the photos that she takes for the purpose of documentation to reflect on children’s activities, “…having all of this documentation lets you look back, compare, and see where or if there is a trend in interest or a trend in behaviour” (ECE 4, Initial ECE interview). She, like the other participants, sees how documentation validates the program while also providing a benefit for parents.

I think that parents need to see that, yeah, we’re play based, but things are happening – they need to see that we’re not just playing all day – that there are incredible thought processes happening and it helps them (parents) understand what children are capable of. (ECE 4, First ECE interview)

ECE 4 had to reluctantly withdraw from the study at the midpoint mark, having accepted a new position at a different centre, this time working with infants and toddlers. When answering her
final questionnaire, she expressed disappointment with not being able to continue in the research study.

**ECE 5.** ECE 5 is classified as a Level 3 and is a relatively recent graduate with less than two years experience in the field. She entered the ECE field as a mature student, having worked other jobs before settling on ECE as a career. She first heard about pedagogical documentation when she was looking for child care for her own child (prior to her joining the sector). That is when she first heard of the ‘Reggio Approach’ and when her interest in the child care sector was piqued. She discovered more about pedagogical documentation while she was studying ECE in a post-secondary program. ECE 5 works with younger preschoolers (three-year olds and early fours) in a class of fourteen children. She had been in this position for approximately one year when she joined the research study. She works in a large urban, not-for-profit centre. When asked to describe her philosophical focus and programming approach on the initial questionnaire, she chose the following terms from the list of options provided - ‘emergent curriculum’, ‘developmentally appropriate’, ‘project-approach’ and ‘play-based’.

During her first interview, ECE 5 described herself as being ‘pretty confident’ with the process of documentation, meaning that “I don’t worry much how others look at it and what they think. I guess I create it more as a reflection of my own practice and that’s an individual thing. So, I’m not trying to please anyone in particular” (ECE 5, Initial ECE interview). At the same time, she felt that she might be too comfortable and expressed a desire to push herself out of this comfort zone to see if “I can find other vehicles on how to present this information (documentation)” (ECE 5, Initial ECE interview).

Like other participants, she emphasized how documentation validates her work, adding that it ‘elevates our practice and elevates the centre’ above the ‘average centre in the field’ that
may use commercially made displays on the walls rather than displays of authentic documentation.

I feel like it’s very validating to look back and say, “No I didn’t just come here to make sure that 14 children were safe all day. I did something. We learned something together and we created a bonding connection. It (documentation) shows that it is not just that you need a good heart but also a good brain to be a good teacher. (ECE 5, Initial ECE interview).

**ECE 6.** ECE 6 has less than three years experience in the early childhood field and has worked with four-year olds in a large urban centre for 1.3 years. She holds Level 3 classification. When asked to describe her philosophical focus and programming approach on the initial questionnaire, she chose the following terms from the list of options provided - ‘emergent curriculum’, ‘Reggio-inspired’, ‘developmentally appropriate’, and ‘project approach’.

She first learned about pedagogical documentation in college in a course that focused on emergent curriculum. She describes it as being a ‘communication tool’ that helps parents to ‘know what their children are doing and why and how it is of benefit to them’. She says that it can be a way for parents to share what their child does at home and to give them ideas on what they can try at home with their children. In terms of the program, she states that “… it acts like a guide – it’s how we decide what to do next” (ECE 6, Initial ECE interview). When describing her comfort level with documentation, ECE 6 says that it depends on the topic, referring to which developmental domain she is focusing on when conducting an observation and creating documentation. She is comfortable when she focuses on areas that would fall under the realm of cognitive development which she finds more ‘straightforward’, however is less sure of her
interpretation of events from a social emotional lens. “I don’t know..it’s just like choosing the word or I sometimes think I describe it a little bit negative(ly). I sometimes feel like I don’t know what is important. I don’t know what I should put in and what I shouldn’t put in” (ECE 6, Initial ECE interview).

**ECE 7.** ECE 7 has more than forty years of experience working in the child care sector and is classified as a Level 1. She is the director and owner of a small, rural centre and has held this position for twenty-nine years. When asked to describe her philosophical focus and programming approach on the initial questionnaire, she chose ‘Reggio-inspired’ and ‘emergent curriculum’ from the list of options provided.

Like most directors of small child care centres, ECE 7 also works directly with the children as part of the ratio. She worked directly with the preschool age group while she was participating in this research study. ECE 7 joined the study at the midpoint mark. She had attended the initial information session held in Month One and had been following the progress of the two participants who worked at her centre. When one of the participants (ECE 2) withdrew from the study because she had accepted employment elsewhere, ECE 7 offered to join the study to replace her.

ECE 7 describes herself as very comfortable with the process of documentation, having first heard of it seventeen years ago at a workshop. Since then, she has participated in research studies relating to pedagogical documentation and has arranged for professional development on the topic for her staff at the centre. She has had the opportunity to travel to Reggio Emilia as part of a Canadian study tour. When reflecting on her usual process of documenting, however, she stated that the activities that she generally chose to document were ‘a little staged’, preferring to document adult-initiated activities rather than child-initiated ones. She felt that the main audience
for her documentation was the parents and she stated that she looked forward to trying a new way of documenting, one where she would be co-creating with the child, knowing that the child is the main audience.

Table 2 summarizes the philosophical focus and programming approach as described by each of the ECE participants.

Table 2
*Philosophical focus and programming approach as described by ECE participants*

<table>
<thead>
<tr>
<th></th>
<th>Emergent Curriculum</th>
<th>RIE</th>
<th>Montessori</th>
<th>High Scope</th>
<th>DAP</th>
<th>Theme-based</th>
<th>Play-based</th>
<th>Project Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 1</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>ECE 2</td>
<td></td>
<td>●</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECE 3</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>ECE 4</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECE 5</td>
<td>●</td>
<td></td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>ECE 6</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>●</td>
</tr>
<tr>
<td>ECE 7</td>
<td></td>
<td>●</td>
<td>●</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>●</td>
</tr>
</tbody>
</table>

**Parent Participants.** In total, sixty-three (63) parents out of a possible eight-four (84) from the three research sites signed consent forms to be involved in this research study.

Participation in the project was voluntary and parents were informed, through an information
letter (see Appendix G), that their choice to participate or not would not influence their future relations with me, as researcher, the director and/or the staff members of the participating centre, or their role within the child care centre. Parents were informed that for every consent form received by the centre, two dollars ($2) would be donated to the centre’s library.

Of the 63 parents, 45 completed initial questionnaires and 26 completed final questionnaires. The initial questionnaire asked respondents to indicate if they were willing to be contacted by me for a follow-up interview. Thirty-two (32) respondents indicated a willingness to be contacted. I contacted respondents individually until seven participants agreed to be interviewed, ensuring that there was a relatively equal distribution of parents per participant, meaning that at least one parent from each participant’s classroom was selected for the interview. Not all of the parent participants had children who participated directly in the co-construction process during the course of the six-month study (because not all children in each of the sites created documentation with the ECE participants during the study). Parents had varying levels of understanding and awareness of pedagogical documentation; however, documentation was present at each of the research sites. One of the purposes of the study was to determine if parents were familiar with and aware of pedagogical documentation, therefore, it was expected that levels of awareness would vary. For more information on parent participants, see Table 3.
Table 3

*Parent Participants*

<table>
<thead>
<tr>
<th>Parent Participant</th>
<th>Age of son/daughter at beginning of study</th>
<th>Type of centre attended</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent 1</td>
<td>4 yr old son</td>
<td>Urban/ non-profit</td>
<td>Identified son as being on the autism spectrum</td>
</tr>
<tr>
<td>Parent 2</td>
<td>4.5 yr old son</td>
<td>Urban/privately-owned</td>
<td></td>
</tr>
<tr>
<td>Parent 3</td>
<td>3.5 yr old daughter</td>
<td>Urban/ non-profit</td>
<td></td>
</tr>
<tr>
<td>Parent 4</td>
<td>4 yr old daughter</td>
<td>Rural/privately-owned</td>
<td></td>
</tr>
<tr>
<td>Parent 5</td>
<td>4.0 yr old son</td>
<td>Urban/privately-owned</td>
<td></td>
</tr>
<tr>
<td>Parent 6</td>
<td>4.5 yr old son</td>
<td>Rural/privately-owned</td>
<td></td>
</tr>
<tr>
<td>Parent 7</td>
<td>5.0 yr old daughter</td>
<td>Urban/privately-owned</td>
<td></td>
</tr>
</tbody>
</table>

*Child Participants.* The parents of sixty-four (64) children (includes one sibling group) provided consent for their child/ren to be a part of this research study. In addition to parental consent, children were provided with the opportunity to provide assent to participate. Educators were asked to explain to the children that someone from the university would be looking at their photos and drawings and would be taking pictures of their work. If any child did not want to share a photo of their work, they could tell the educator not to share. No incidents of a child withdrawing their assent were reported.
Demographic information was received for 45 children, based on data provided by those parents who completed the initial questionnaire. At the beginning of the study period, the 45 children ranged in age from 2.11 years old to 5.0 years old (Mean = 3.9 yrs. old). Of this number, twenty-three (23) children attended child care on a full-time basis (35-50 hours/week) and twenty-two (22) attended part time (5.5-27.5 hours/week). The children had been in the child care centres (three research sites) for an average of twenty-one (21) months with two months of attendance being the lowest and forty-two (42) months being the highest. Twenty-two children attended a centre located in a rural area with the remainder of the sixty-four (64) children attending centres in urban areas. Table 4 provides a synopsis of this information.

Table 4

*Child Participants – data from beginning of study*

<table>
<thead>
<tr>
<th>Centres</th>
<th>Number of Participants (consent)</th>
<th>Number of children with completed questionnaires</th>
<th>Age Range</th>
<th>Full Time status</th>
<th>Part time status</th>
<th>Range of attendance (months)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centre 1</td>
<td>30</td>
<td>23</td>
<td>2.11 - 5 yrs</td>
<td>8</td>
<td>15</td>
<td>2 – 36 mos μ= 18 mos</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>μ= 3.9 yrs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Centre 2</td>
<td>12</td>
<td>8</td>
<td>3.4 - 4.11 yrs</td>
<td>4</td>
<td>4</td>
<td>2 – 30 mos μ= 15.5 mos</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>μ= 4.2 yrs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Centre 3</td>
<td>11 (Rm 1)</td>
<td>11 (Rm 1)</td>
<td>3.2 - 4 yrs</td>
<td>11</td>
<td>3</td>
<td>5.5 – 42 mos μ= 25 mos</td>
</tr>
<tr>
<td></td>
<td>11 (Rm 2)</td>
<td>3 (Rm 2)</td>
<td>4.6 - 4.11 yrs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>μ= 4 yrs 8 mos</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Not all children participated directly in the co-construction process, nor were work samples collected from all child participants. ECE participants were asked to provide one
sample of co-constructed documentation per month in months two, three, four and six of the study. Therefore, there were months when only one or two children per classroom were represented via work samples. However, all children in the research sites were present at some point when co-constructed documentation was being created or displayed.

At the end of the study, a videotaped focus group with nine children was held at one of the research sites. The children participating in the focus group were in the centre’s preschool-aged room and ranged in age from 3.10 yrs to 5.5 yrs. Parents at this centre had agreed for these children to be videotaped as part of the research study. Although there were more than nine children in that specific classroom, these children were present at the morning of the scheduled focus group and were representative of the children at the site who were involved in the co-construction process. All of the children in the focus group had participated in the co-constructed documentation process. Logistical difficulties on the part of the other child care centres did not allow focus groups to be held at the remaining two sites. (For more information on the focus group, see ‘Child Focus Group’ in this chapter)

**Data Collection**

Data were collected from all three groups of participants and in various forms. The following section will provide specific details on the types of data collected and the process of data collection.

**ECE Participant Data:** At the beginning of the study and at the two, three, and four-month marks, questionnaires, semi-structured interviews, and document sampling were used to determine factors that influenced the co-construction of documentation and ways in which the practice of co-construction influenced reflective practice and intentionality. At six months, the same methods of data collection were used to determine if changes in the documentation process,
if any, had been sustained and to provide educators with the opportunity to debrief on the process and discuss lessons learned.

**Parent Participant Data:** At the beginning of the study and during the last (sixth) month of the study, parent questionnaires were distributed and collected and parent interviews were conducted.

**Child Focus Group:** At the six-month mark, I, with the consent of parents and educators, conducted a short focus group with the child participants at one site. This focus group occurred on-site at the children’s child care centre and was conducted in the company of the children’s primary educator who was a participant in the study. During the focus group, children were asked age-appropriate questions regarding their perception of the co-construction process, centred on a specific sample of co-constructed documentation. (For focus group questions, see Appendix H.)

Thus, there were five points of data collection – at the commencement of the study; at the two, three, and four-month mark and at the six-month mark. The purpose of the first data collection point was to determine baseline levels of pedagogical documentation, intentionality, and reflective practice among the ECE participants and to determine baseline levels of awareness and understanding of parent participants relative to pedagogical documentation. The second, third, and fourth data collection points focused on ECE participants with the purpose of determining if there had been changes in these areas of reflective practice and intentionality, and examined the factors that influenced the co-construction process. The fifth collection of data allowed for a final look at the factors affecting documentation and provided an opportunity for educators to discuss the process and lessons learned. As well, parent interviews were conducted and parent questionnaires were distributed and collected this final data collection point. The
focus of these interviews and questionnaires was to determine if parents’ awareness and understanding of pedagogical documentation had changed over time. Table 5 provides a schedule for data collection.

Table 5

*Schedule of Data Collection*

<table>
<thead>
<tr>
<th>Data Collected</th>
<th>Month One</th>
<th>Month Two</th>
<th>Month Three</th>
<th>Month Four</th>
<th>Month Five</th>
<th>Month Six</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE Interviews</td>
<td></td>
<td></td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Parent Interviews</td>
<td>●</td>
<td></td>
<td>●</td>
<td></td>
<td></td>
<td>●</td>
</tr>
<tr>
<td>ECE Questionnaires</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td></td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Parent Questionnaires</td>
<td>●</td>
<td></td>
<td>●</td>
<td></td>
<td></td>
<td>●</td>
</tr>
<tr>
<td>Document/Work Samples</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Focus Group</td>
<td></td>
<td></td>
<td>●</td>
<td></td>
<td></td>
<td>●</td>
</tr>
<tr>
<td>Site Visits</td>
<td>●</td>
<td></td>
<td>●</td>
<td></td>
<td></td>
<td>●</td>
</tr>
</tbody>
</table>
Data collection methods included semi-structured interviews, questionnaires, site-visits, a focus group, and document sampling. The interviews and questionnaires were used as a form of narrative research with the adult participants (ECEs and parents), asking them to reflect on their experiences with documentation prior to the study (initial interview and questionnaire) and then to reflect upon their experiences with co-construction during the study (ECEs) and at the end of the study period (Parent Participants). Prior to their use, mock interviews were conducted with two parents and two educators (who were not involved in the study) as a means of testing questions for consistency and clarity. Site visits and document sampling focused on the work of the children and ECEs together, meaning that observations of children and ECEs interacting in their typical child care centre environments were conducted and document samples pertaining to co-constructed pedagogical documentation were collected or photographed. All information was recorded using researcher-designed protocols that organized information reported by participants as well as data collected by me.

ECE Interviews. “Design research assumes continuous refinement” (Collins, Joseph, and Bielaczyc, 2004, p. 34). As is characteristic of design-based research and a social-constructivist research paradigm, the iterative, interactive, and flexible nature of the process required participants to evolve and refine their attempts at co-constructed documentation throughout the study period. The semi-structured interview format captured this dynamic process using open-ended questions, allowing the participants to talk about and reflect upon their discoveries and challenges each month. Each round of semi-structured interviews contained questions that were pertinent to what educators were experiencing at various points throughout the research period, i.e., the specific questions varied from one interview to the next. The semi-structured interview format allowed for and required flexibility on for me, as interviewer creating opportunities to ask
follow-up questions and to build on the participant’s responses, all of which yielded rich data filled with reflection, insight, and specific relevant examples.

Participants were advised that an audio recorder would be used to record each interview and they were informed when the recorder began recording and when it was turned off. In addition to the audio recording, I took notes and, with the permission of the educators, took photos of the work samples provided during the interviews. Each interview was conducted in person, in a quiet space, on-site at the ECE’s workplace. To facilitate these in person interviews, they needed to be scheduled during the ECE’s lunch break or at a time when a substitute could cover their duties for them. I transcribed each interview verbatim and provided participants with the opportunity to review the transcripts for accuracy and clarity. Six of the seven ECE participants confirmed the accuracy of the transcripts. One ECE participant declared that she preferred to not check her transcript.

The initial interviews, which lasted between 22 minutes to 45 minutes depending on the ECE participant, were designed to gather baseline data about the educators’ experiences with and current practices relating to documentation, reflective and intentional practice. This was a reflective interview, requiring ECE participants to discuss their practice, including their comfort levels with certain aspects of their roles, e.g., planning, programming, and documentation. Although all the educators had participated in an information session about the research study one month prior to this first interview, most of the participants used this first interview as an opportunity to ask additional questions regarding the expectations of the study and their role within it. They used this time, as well, to discuss their own expectations for the study. At this first interview each participant was provided with a journal in which to record their thoughts related to the study in the month interval between interviews. The participants were reminded to
bring their journal with them for each subsequent interview to review as needed during the interview process.

The remaining four interviews (conducted in months two, three, four and six) each began with a discussion centring on an example of co-constructed documentation that was attempted by the ECE participant during the month prior to the interview, self-chosen by each participant. This work sample acted as an elicitation for the resulting conversation about the process of co-construction, including factors that supported the process, challenges experienced, insight into children’s thinking and development, and the effect of co-construction on practice. In addition to the discussion which emerged from the work sample, I asked additional questions specific to the research goals of the study. During the final interview (month 6), in addition to the discussion specific to the work sample, participants were asked to reflect on the overall experience, including a question about what advice they would give to anyone who would be interested in attempting co-construction of documentation. The interview protocol for all five ECE interviews can be found in Appendix D.

**Parent Interviews.** Seven parents were interviewed at the beginning of the six-month study and then again once the study was complete. (For information on parent selection, see ‘Parent Participants’ in this chapter). The initial questionnaire (Appendix I) was intended to collect information about parents’ perceptions related to their child’s favourite activities; their thoughts around how their child learned or benefitted from their play; how they learn about their child’s day; and their awareness and understanding of pedagogical documentation.

Draft interview questions were developed prior to the study and field tested through two mock interviews held with parents of preschool aged children who were not involved in the study. As a result of this field testing, questions were further refined for use in the study. The
questions were developed within the context of the research goals, specifically centering on the goals related to parents, e.g., parental engagement, parental understanding play-based learning, and the documentation of play experiences.

The second (and final) parent interview (Appendix I) was conducted once the study ended. All seven parents participated in the final interview. The purpose for this interview was to delve further into the topic of co-constructed pedagogical documentation. Questions were developed based on the overall research goals specific to parental engagement and understanding of pedagogical documentation. They focused on the perceived value of this type of documentation process; obstacles or challenges to engaging in and accessing documentation from a parent’s perspective and an opportunity to talk further about any questions or comments about the study and the topics being discussed.

Parent interviews were conducted by telephone, generally during the evening at a time that was deemed convenient by the parent. Interview times were scheduled via email correspondence. Interviews generally lasted between 20 and 30 minutes. Parents were informed that the interview would be audiotaped and were informed when the audio recording began and when the audio recorder was turned off. I transcribed each audio recording and provided transcriptions of the interviews to parents for validation. Parents were asked ‘does this transcription accurately reflect our conversation?’ All parents responded to this question affirmatively.

**ECE Questionnaires.** ECE participants were asked to complete three questionnaires throughout the duration of the six-month study. The first questionnaire was administered in Month One. The second questionnaire was in Month Three and the third and final questionnaire was in Month Six.
All three questionnaires contained a combination of open and closed questions based on the broad categories related to the research questions (co-constructed pedagogical documentation, reflection, intentionality, children’s interests, metacognition, parental engagement and understanding (see Appendix C). The closed questions consisted mainly of Likert scale-type questions, written with either five or seven category response choices. The open-ended questions asked respondents to elaborate on their responses by expressing their thoughts, opinions and experiences relating to the focused areas of research included on the questionnaire.

The initial questionnaire began with questions that asked for demographic information from the ECE participants pertaining to their professional background (i.e., length of time in the field, length of time in their current position, level of classification). The questionnaire was divided into four distinct topic areas which were chosen to yield data related to the main research question (factors that contributed to and were influenced by pedagogical documentation) and the sub-questions which centred on the topics of reflection and intentionality in practice/program planning; and the influence of pedagogical documentation on parents and children. The topic areas were pedagogical documentation; program planning; child involvement in the programming; parental engagement, and the questionnaire included a separate space for general comments. These topic areas were also designed to gather information on the existing practices of individual early childhood educators relating to the process of creating pedagogical documentation in their respective early learning settings, with an eye to how children and parents were currently engaged in the process. The initial questionnaire was field tested prior to its use by two early childhood educators who were not involved in the study. Questions were refined and revised based on this field testing. Sample open-ended questions included ‘How have you
involved children in the construction or creation of pedagogical documentation?’; ‘How are parents informed about activities that are happening in your playroom?’; ‘How are children’s ideas and interests incorporated into the planning process?’

The second, or midpoint (three-month mark), questionnaire was reflective in nature; however, still contained both open and closed questions. The questions focused on the co-construction process to date, asking for specifics relating to specific and practical supports and challenges to the process thus far. Respondents were asked to provide their opinions on the reflective dialogue prompts that they have used in their conversations with children and were asked to comment on if and how their level of reflective practice had been affected by their participation in the study. Other questions focused on the perceived benefits of a co-constructive approach and the perceived influence that the co-construction process has had on their practice related to program planning and their understanding of children’s developmental strengths, needs, and interests. Some examples of these open-ended questions included: ‘What are some of the challenges/benefits to co-constructing pedagogical documentation with children?’ and ‘Has the co-construction process contributed to your ‘image of the child’ including your understanding of children’s developmental strengths, needs, and interests? If so, how?’

The third and final questionnaire, which was administered at the end of the six-month study, provided ECE participants with the opportunity to reflect on their experiences with co-construction of documentation specifically and the research study in general. As with the other two questionnaires, it centred on the main topics of co-constructed documentation; reflective practice; awareness of children’s developmental strengths, interests, and needs; children’s metacognition; parental levels of engagement and understanding of their child’s play. Sample open-ended questions included: ‘In your opinion, what is it about the co-construction process
that seems to affect children’s level of metacognition?’ and ‘What is one ‘take-away’ lesson gained from your participation in this study?’

The questionnaires were distributed individually to each ECE participant and were collected, for the most part, a month later at the next scheduled interview. Although the ECE questionnaires, in general, contained overlap with the topics discussed during the ECE interviews, they provided the respondents with the opportunity to spend time with each question, gathering their thoughts, consulting their journals, and writing the answers, resulting in data that were rich and insightful. The closed questions provided succinct and important details and gave a context for the open-ended questions that followed. At the end of each questionnaire, the respondents were thanked for their input and for their participation in the study.

Parent Questionnaires. Parents were asked to complete two questionnaires throughout the course of the research study – one at the beginning of the study and one at the end. Questionnaires were printed and hard copies were provided to each of the three sites. ECE participants were asked to distribute the questionnaires to the parents and then return the completed questionnaires to me. Parents were provided with the option to have the questionnaire emailed to them directly and they had the option to email their completed questionnaire to me.

The initial parent questionnaire was field tested prior to the study by two parents of preschool aged children who were not involved in the study. Questions were refined and revised based on this field testing. This first questionnaire began with instructions on how to complete it and a thank-you for participating. It contained a combination of open and closed questions as well as questions that provided demographic and contextual information such as age of child, how long the child had attended the centre, and who does the drop-off and pick up of the child at the centre. The closed questions used a Likert-type five-category scale (Strongly agree to
Strongly Disagree), along with some ‘yes/no’ type questions. The yes/no questions asked the parents to elaborate on why they answered either yes or no, where appropriate.

The topics of the questions in this initial questionnaire corresponded with the general research goals as outlined in the research questions specific to parents. Namely, the topics dealt with the parents’ understanding and awareness of their child’s play activities and how documentation supports or strengthens this understanding. The questions asked for information on parental engagement in the child care settings as well as engagement with the early childhood educators. Parents were provided with the opportunity to add their own comments at the end of the questionnaire. Parents were given the option to sign their name at the end of the questionnaire and they could indicate if they would be willing to participate in a follow-up interview.

The final questionnaire was administered at the end of the study period. This questionnaire reminded parents about the research study that had taken place over the past six months and invited them to complete this final questionnaire. This questionnaire began with some general demographic questions, similar to the first questionnaire. The remainder of the questions focused on documentation, asking if the parents noticed new documentation over the past six months and how this documentation influenced their understanding of their child’s play activities. Parents were provided with space at the end of the questionnaire to add their own comments.

**Document/Work Samples.** Throughout the research study period, I collected samples of the educators’ documentation to be used as data and as catalysts for discussion during interviews and site visits. ECE participants were asked to bring a sample of their ‘pre-study’ documentation to their first scheduled interview for discussion purposes. Each subsequent interview began with
a discussion of a work sample (documentation), chosen by the ECE participant as an example of
co-constructed pedagogical documentation. The expectation was for each ECE participant to
complete one example of co-constructed documentation per month over the six-month period.
Some of the participants brought several examples of their co-constructed documentation to each
session while others, occasionally, did not bring any. All participants provided consent for me to
take photographs of the work samples and use them for research purposes. Parents had also
provided consent for children’s photos to be included in the documentation samples. Children
provided assent, via the ECE participant, for their documentation to be shared with me
(Appendix J). Names of children used in these samples were changed to initials and any
identifying information was removed prior to publication in this document; however, there is an
understanding from all participants that the documentation cannot be made completely
anonymous as it does contain, in some instances, recognizable photos of the children. This was
made clear to all participants through the consent process.

Child Focus group. A child focus group was held at one of the research sites to gather
information on the co-construction process from the perspective of the child participants.
Pedagogical documentation itself is “grounded in a ‘pedagogy of listening’ ...a reflective process
for educators to understand their own role in the teaching/learning dialogue” (Tarr, 2011, p. 13),
and, as such, it was clear that a research study emphasizing a co-construction process would not
be complete without directly including the perspective and voice of the child participants.
Including children’s voices in this way is consistent with a children’s rights-based approach and
“recognizes that children have agency and as such, have the ability to engage ‘in the process of
construction of meaning’ in their own lives” (Fraser & Robinson, 2004, p. 76 as cited in Lundy
& McEvoy, 2011, p. 129). Therefore, nine children were invited by the ECE in their classroom
to have a discussion with me regarding the process of co-constructed documentation. These nine children attended one of the centres that served as a research site (rural/privately owned centre) during the six-month research study. Their primary educator was one of the ECE participants in the research study and all nine children would have been involved in the co-construction process either directly, i.e., they constructed a piece of documentation directly with the ECE participant, or indirectly, i.e., they were present in the room when the documentation was co-constructed and were able to see the final documentation display. Although there were 16 children enrolled in this room, it was felt by both me and the participating ECE that the focus group should be comprised of a smaller group of children in an effort to maximize the effectiveness of the group. These nine children were available during the time of the scheduled focus group and, therefore, were chosen to participate.

The focus group was held on-site in the child care centre in a quiet room, separate from the children’s regular classroom. It took place in the morning, after outdoor time and before snack. It lasted for 20 minutes. Present in the room along with me was the ECE participant, the nine children from the preschool aged room (four-year old room), and the videographer. The children (in the company of the ECE) and I spent some time becoming familiar with each other and discussing the video equipment (microphone, video camera) and how it worked. The children introduced themselves and did a ‘sound check’ with the videographer, while seated in a circle with the ECE and me. Figure 10 contains photos of the focus group in session.

Once the children were comfortable, I made some general observations about various photos of the children that I had seen around the centre and asked the children if they had seen the same photos. I then showed the children some photos that were taken at that centre, featuring them or other children that they knew and then we talked about what was happening in the
photos. During this discussion I asked about them what would they would ask if they wanted to know more about what was happening in the photo. Following that, I showed the children three (3) photos of children that they did not know who were engaged in various play situations (outdoors, building blocks, playing in a puddle), and asked them to pretend they were teachers who wanted to know what the children were doing and thinking about in each scenario. The children were then asked to describe what they would ask the children in each scenario. After twenty minutes, the focus group ended with a general conversation about ‘questions’ – why they are asked and why they are important – as well as a description by two of the participants of a piece of work that they had documented with the ECE participant. (For focus group questions, see Appendix H).

**Site Visits.** Site visits occurred at each of the three sites throughout the six-month study period – at the beginning of the study, at the mid-point mark and near the end of the study. The purpose of these site visits was to provide me with a physical and temporal context for the general layout of each of the classrooms, the daily schedule, the types of play materials and activities available the children, how and if documentation was displayed, and the types of documentation being displayed. The site visits provided context regarding the types of interactions that were typical for each site, including interactions between colleagues, between children, and between adults and children. The site visits allowed the children at each site to become somewhat familiar with me as I sat with them during play time as an observer and, occasionally, as a play participant when I was invited by the children to join in on the play. Each site visit lasted between one and two hours.
Data Analysis

Strategies used for data analysis in this research study were consistent with strategies used for qualitative research data analysis. Specifically, thematic analysis and a system of inductive coding, using a computer-assisted qualitative data analysis program (MAXQDA 12), were used to interpret, organize, and analyze the findings from the multiple forms of data generation.

“Thematic analysis is a method for identifying, analysing, and reporting patterns (themes) within data” (Braun & Clarke, 2006, p. 79). Interviews and questionnaires were transcribed verbatim by me and then analyzed for common themes or categories, using an open-coding process. Identifying information from the data was removed prior to analysis. The transcripts from all interviews and questionnaires were imported into a computer-assisted qualitative data analysis program (MAXQDA 12) to assist with the coding process. Once I read and re-read the transcripts and the data from the questionnaires and identified a set of initial codes, then the MAXQDA software was used to organize the data as a next step in the coding process.

Qualitative data analysis programs such as MAXQDA are useful in assisting with the analysis of data, however, it is important to emphasize that the interpretation of the data is ultimately the responsibility of the researcher (Humble, 2012). With this in mind, I used an iterative and inductive process of analysis to determine themes or patterns within the data. “Inductive analysis is…a process of coding data without trying to fit it into a pre-existing code frame, or the researcher’s analytic preconceptions. In this sense … thematic analysis is data-driven” (Braun and Clarke, 2006, p. 83). Braun & Clarke clarify; however, that data are not coded in an epistemological vacuum; the researcher’s prior knowledge and ‘theoretical commitment’ influences the coding process as does the overall research questions (2006).
Thematic analysis, according to Braun & Clarke (2006), has six distinct phases including 1) Familiarizing yourself with your data; 2) Generating initial codes; 3) Searching for themes; 4) Reviewing themes; 5) Defining and naming themes; and 6) Producing the report (p. 87). During the data collection phase of this study, I became very familiar with the data through the ongoing transcription of interviews and the collation of data gathered through questionnaires. This ‘immersion’ into the data was necessary in order to become familiar with the breadth and depth of the content of what was being discussed and observed during the data gathering (Braun & Clarke, 2006). Once the data became familiar, the process of coding began. The coding process refers to:

The steps the researcher takes to identify, arrange, and systematize the ideas, concepts, and categories uncovered in the data. Coding consists of identifying potentially interesting events, features, phrases, behaviours, or stages of a process and distinguishing them with labels. These are then further differentiated or integrated so that they may be reworked into a smaller number of categories, relationships, and patterns so as to tell a story or communicate conclusions drawn from the data. (Benaquisto, 2013, p. 3)

I applied a process of inductive analysis to systematically examine the data collected from the ECE and parent interviews and questionnaires, work samples (examples of co-constructed documentation) and data collected through the child focus group. My sequence of analysis began with a focused examination of the ECE interviews, organizing the participant answers to each question beginning with the first interview, e.g. Interview 1: Question 1; Interview 1: Question 2 and so on. I repeated this process with the five sets of ECE interviews in chronological order. With the ECE questionnaires, I collated the responses from each question for each of the three sets of questionnaires, beginning with the first question of the first
questionnaire which was completed at the beginning of the research study and ending with the
final question of the final questionnaire completed at the end of the six-month study. I used this
same process with the Parent interviews and questionnaires. The samples of the co-constructed
documentation were referenced by the ECEs in their interviews and questionnaires and I used the
corresponding photographs of these work samples to depict and illustrate the descriptions
provided by the ECEs in their interviews with me. The information from the child focus group
was included in the data as evidence of the children’s interpretation of the reflective element of
the co-constructed documentation.

Repeated readings of the data were necessary prior to the initial or open-coding. Some
literature regarding coding suggests that the researcher begin the process without the influence of
existing or preconceived ideas and concepts, especially in reference to coding as a component of
a grounded theory approach (Charmaz, 2014; Suddaby, 2006). “The real danger of prior
knowledge…is not that it will contaminate a researcher’s perspective, but rather that it will force
the researcher into testing hypotheses, either overtly or unconsciously, rather than directly
observing” (Suddaby, 2006, p. 635). In design-based research; however, it is understood that the
researcher has an understanding, both theoretically and practically, in the phenomenon being
studied and that the research questions will guide the iterative process that moves open-coding to
a more focused coding approach (Cobb, et al., 2003).

Once initial coding was completed, focused coding began. Initial codes were compared
and examined more closely, using an iterative approach to inductively identify categories,
connections, and relationships found within the data. During a focused examination of the
codes, researchers sometimes describe themes as emerging from the data. The literature
indicated; however, that it can be problematic to describe coding process in this way as it can be:
…misinterpreted to mean that themes ‘reside’ in the data, and if we just look hard enough they will ‘emerge’ like Venus on the half shell. If they reside anywhere, they reside in our heads from our thinking about our data and creating links as we understand them. (Ely, et al., 1997 as cited in Braun & Clarke, 2006, p. 80)

As Braun and Clarke (2006) describe, “An account of themes ‘emerging’ or being ‘discovered’ is a passive account of the process of analysis, and it denies the active role the researcher always plays in identifying patterns/themes, selecting those of interest, and reporting them to the readers” (Taylor & Ussher, 2001, as cited in Braun & Clarke, 2006, p. 80). This emphasis on the active and interactive role of the researcher during the process of data analysis fits within a social constructivist research paradigm and is consistent with the literature describing design-based research (Anderson & Shattuck, 2012; Cobb, et al., 2003; Collins, et al., 2004; Gorard, et al., 2004). As well, it is an accurate representation of the examination of coding in this research study.

Once focused coding of the data was completed, a thematic analysis was conducted resulting in the definition and naming of three specific themes. Within each theme were several sub-themes. For a full list of categories and themes, see Table 6.

Documentation samples and observational data were used to collect baseline data as well as to examine changes in practice and process over the study period. Interpretation and analysis of the data speak to the factors associated with co-construction of pedagogical documentation with children. To validate the accuracy of the findings, data triangulation was utilized throughout the coding process, corroborating findings among the various methods of data collection, e.g., interviews, document sampling, and questionnaires.
**Trustworthiness**

Throughout the research study, the credibility of the data being collected was checked using processes such as data triangulation and member checking of the findings. Data triangulation, according to Creswell (2012) is the process of corroborating evidence from different individuals and through different methods of collection (p. 259). This research study collected data from three different sources (ECE participants, parent participants and child participants) using several different methods (interviews, questionnaires, focus group, document sampling, and site visits). Member checking is a process in which “the researcher asks one or more participants in the study to check the accuracy of the account. This check involves taking the findings back to participants and asking them about the accuracy of the report” (Creswell, 2012, p. 259). All participants participating in the interview process (seven ECEs and seven parents) were provided with the opportunity to member check or validate the accuracy of their transcribed interviews and those who chose to respond (13 of 14 participants) affirmed that the transcriptions, which formed the basis of the data collected, were accurate reflections of the conversations. The one participant who chose to not check the transcripts stated in an email that she trusted the transcripts to be accurate.

**Ethical Considerations**

In addition to the consent provided by the ECE participants, parental permission and consent was sought as part of this research study. Educators in each classroom explained to the children that they will be observed and photos of their work and documentation will be taken as part of a study looking at how ECEs and children work together to document and plan activities. If any child or parent expressed an unwillingness or discomfort in being involved in the study,
this was respected and every effort was made to ensure that the child/ren did not feel excluded from the activities (See Appendix F & G).

This study placed an emphasis on seeking the perspective of children in the telling of their own learning stories. The individuals participating in this story-telling process with the children (the educators and, to a certain extent, parents) were very familiar to the children because they interact with them on a regular basis. In this respect, the data collection was integrated within the daily pedagogical practice of the child care centres and was not separate from the children’s regular routine. At all times, the comfort and well-being of the children participating in co-construction of documentation were protected and emphasized. To respect children’s voice and participation in the research project, each ECE participant was asked to seek the children’s assent to share their pedagogical documentation with me, as researcher (Appendix J). There were no reports of the child participants choosing to withhold their documentation from the research study.

Summary

This qualitative, design-based research study incorporates a variety of data collection tools, including questionnaires, interviews, document sampling, site visits and a focus group to explore factors involved in the co-construction of pedagogical documentation. The methodological approach is influenced and guided by a social-constructivist research paradigm which emphasizes that meaning is constructed through interaction between and among the researcher and the participants. To recognize this interpretative process, an iterative and inductive process was used for both the collection and analysis of data. During the data collection process, the semi-structured interview process allowed for flexibility and reflection on the part of both the researcher and the participants. Throughout the data analysis stage, a process
of thematic analysis, assisted by the qualitative data analysis software (MAXQDA 12), provided me, as researcher, with the opportunity to refine themes across the data set, creating a rich examination of the various factors that both influence and are influenced by the co-construction of documentation. Including the voices of educators, parents, and children helped to illustrate the various perspectives involved in this co-constructive process, and provided a deep and multi-layered exploration of reflection, intentionality, and practical considerations relative to the co-construction of pedagogical documentation.
Chapter 5 - Results

This chapter presents the research findings based on a thematic analysis of the data collected over a six-month period. This analysis led to a distillation of three major themes which provide a framework to identify the many and varied factors associated with the co-construction of pedagogical documentation in early learning settings. The three themes that resulted from the thematic analysis are 1) Value and Validation; 2) Reflection and Relationships; and 3) Process and Practicalities. This chapter takes a closer look at each of these themes within the context of the overall goal of the research project which was to examine the factors that influence and are influenced by the co-construction of pedagogical documentation. Table 6 lists the themes and subthemes identified in the study.

Table 6
Themes and Subthemes

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<td>• ECEs’ perspectives</td>
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<td>Processes and Practicalities</td>
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This data analysis is conducted within a social constructivist research paradigm. Essential to this paradigm is the epistemological understanding that there can be multiple realities or interpretations for any set of data or findings gleaned through research based on “the values, standpoints, and positions of the author” (Daly, 2007, p. 33). With this in mind, the findings outlined in this chapter represent one interpretation, mine, of the meanings constructed from the interactions I had with the research participants and their work over a six-month period. These interactions provided data that came in many forms such as answers to interview questions, conversations, written answers to questionnaires, observations, and work samples. The interpretation of the ‘facts’ as presented by the participants are always “contingent on prior frames of reference” (Daly, 2007, p. 32). My own frame of reference is that of a white, middle-class, middle-aged female who has been involved in the field of early childhood education in various capacities for thirty years. I am a student, an assistant professor at a local university, and mother of two grown children. I am a long-time advocate for quality early learning opportunities for young children, which brings with it a firm belief in the importance of and respect for professional, dedicated, early childhood educators. Therefore, the interpretation of the findings from this research study was developed through this personal lens. Daly (2007) describes this as a “process of co-construction insofar as there is an interplay between the meanings of the researcher and the meanings of the participant” (p. 32).

Research Themes

The three themes of ‘Value and Validation’; ‘Reflection and Relationships’; and ‘Processes and Practicalities’ resulted from the specific patterns and themes that I identified through careful examination and subsequent coding of the data gathered from interview
transcripts, questionnaires, document samples, site visits and the focus group. This was an iterative and recursive process, with various clusters being identified and coding groups being defined and then, at times, discarded, based on a continuing process of comparison and analysis of data. My close relationship with the data allowed me to uncover links between and among the information provided by the participants as well as my own interpretations of the information I received directly through an examination of the document samples, transcripts, and observations. This process is consistent with the description provided by Bradley, Curry, and Devers (2006) who state that “There is no singularly appropriate way to conduct qualitative data analysis, although there is general agreement that analysis is an ongoing, iterative process that begins in the early stages of data collection and continues throughout the study” (p. 1760).

As my analysis continued, three recurring and unifying concepts became apparent, which eventually became identified as the themes. According to Braun and Clarke (2006), “A theme captures something important about the data in relation to the research question, and represents some level of patterned response or meaning within the data set” (p. 82). The patterns that I defined through the process of thematic analysis, although data-driven and identified through an inductive process, did address the main research question which sought to examine factors that contributed to and resulted from the process of co-constructing pedagogical documentation. The first theme ‘Value and Validation’ evolved as participants spoke of the multiple ways that co-constructed pedagogical documentation provided value to children, parents, educators, and the program and how it validated the practice of educators and the play-based program. This theme carried throughout the whole research study period. The next theme, ‘Reflection and Relationships’ was identified as the data illustrated the significant impact that the co-construction process had supporting reflection and how this reflective component affected relationships.
Reflection and relationships became intertwined and, therefore, this became a key theme to evolve from the data. Finally, the analysis of the data revealed the many practical aspects related to the co-construction process and the process of documentation in general. This was to be expected as all of the participants (parents, educators, and children) were being exposed to a way of documenting that was new to them and, therefore, their experiences provided rich data on the practicalities of introducing and implementing this approach. These important findings and insights are contained within the final theme of ‘Processes and Practicalities’.

**Value and Validation**

**Parent Perspectives.** As part of this research project, parents were asked to complete questionnaires that asked them for their thoughts on various aspects of their own experience as parents of children attending a play-based child care centre. This included an examination of their views on what their child learns through play, their awareness of pedagogical documentation (or photo displays of their child’s activities), and how they use documentation to inform them of their child’s activities. Of the 63 parents who provided consent for their child to be a part of the study, 45 completed initial questionnaires and 26 completed final questionnaires, thus there were 26 sets of both pre- and post-data from the questionnaires. The initial questionnaire asked respondents to indicate if they were willing to be contacted by me for a follow-up interview. Thirty-two (32) respondents indicated a willingness to be contacted. I contacted respondents individually until seven participants agreed to be interviewed, therefore, there were seven parents interviewed at the beginning and the end of the research study.

During the initial interviews and from their comments in the questionnaires, each of the parent participants stated that they saw value in the creation and display of pedagogical documentation in early learning settings. Parents spoke of the practical value of documentation
in terms of how visual displays helped them remember or understand an event better than if the ECE simply told them about the event. Each of the parents spoke of how little they find out about what happens during the day from their children and, consequently, how visual displays of their children’s activities help them to fill in these gaps.

Two parents went further in describing the value of pedagogical documentation. One parent, a father of a four-year-old child who has been diagnosed with Autism Spectrum Disorder (ASD), talked about how photographic evidence of his child’s activities during the day helped to broaden his overall expectations of his child’s capabilities which, although the educator might have told him about verbally, he had difficulty imagining until he saw it for himself via documentation. The story he recounts is one where his child found a worm in the outdoor play area, picked it up, and then showed it to the other children:

There was a note in the book but there was also a picture of him handling a worm – no kidding! Don’t get me wrong, I’m not doubting the teacher but it’s a visual and, to me, that is a really big deal – in terms of interaction, in terms of communication, in terms of sharing, in terms of many, many things. (Parent 1, Initial Parent Interview)

A second parent focused on the sharing of memories and the story telling that can emerge when parents and children view documentation together. He felt that it was important to encourage this type of recalling and revisiting, creating what he described as ‘a shared past’ between parent and child, providing them with something tangible to return to:

All this documentation, too, is evidence of a story that may jog their memory or re-form or re-cement an idea because that’s how the memories are formed and that’s how learning is accomplished through revisiting, repeating, and re-digesting it in a different format. (Parent 2, Initial Parent Interview)
This parent’s analysis of the value of documentation is consistent with research examining conversations between parents and children about the day’s events. According to Carr (2011), research on mothers reminiscing with their young children has “highlighted that revisiting or reviewing event stories can contribute to the children’s meaning making and autobiography” (p. 259). Research on the relationship between maternal discourse and children’s ability to comprehend the feelings of others (Theory of Mind) has indicated that when mothers and children reflect on children’s perceptions of events, mothers can enhance children’s understanding by providing different perspectives and information about the mental states, feelings, thoughts, and motives of others (Ontai & Ross, 2008).

Each of the seven parents interviewed spoke of how documentation assisted them in discovering their children’s interests outside of the home, or as one parent described it, “The mystery that is our children’s lives.” (Parent 2, Initial Parent Interview). They spoke of the context that documentation brings to their children’s comments and how pedagogical documentation provides them with ideas on how to prompt discussions with their children as well as giving them some insight into the children’s circle of friends.

**ECE Perspective.** Data collected from the initial ECE interviews and questionnaires indicated that ECE participants saw value in the process of creating and displaying documentation for themselves as educators, for the children, for the parents and for the program. One ECE participant spoke of how the use of documentation at her centre helped to set their program apart while at the same time validating the work that is done by the educators:

It also may elevate the centre a little bit above the average centre in the field because when you come in and you see (authentic documentation) instead of all those, you know,
bright cut-outs (commercial made displays) …it shows it is not just that you need to have a good heart but also a good brain to be a good teacher. (ECE 5, Initial ECE Interview)

The ECEs spoke of how pedagogical documentation enriches the program by giving meaning to what the children are doing; essentially giving value to their play. They described how documentation displays show a level of pride in the program, especially when the displays consist of both current documentation and documentation of past events. They indicated that documentation is used, in a practical sense, as a guide for the educators on deciding what to do next.

Each of the ECEs spoke of the value of documentation for parents, describing documentation as a “communication tool between ECE and parent” (ECE 6, Initial ECE Interview); and as a way to demonstrate to parents the value of play-based learning, “I think that parents need to see that we’re not just playing all day but that there are incredible thought processes happening and it helps them understand what children are capable of” (ECE 4, Initial ECE Interview). The role of documentation as a means to help parents understand the value of play-based learning was echoed in several other instances throughout the six-month study period.

Documentation was viewed by the ECE participants as being of value to children. They remarked on how documentation displays help children to reflect back on their own thinking and their own memories and how special it is for them to see their work and the value that the adults have placed on their work.

ECE participants spoke of the validation of their work and their worth as educators that comes from the creation and display of documentation. This was a prominent theme throughout the study. This validation comes from being able to demonstrate visually to parents and to others the complexity of the everyday experiences that occur in an early learning, play-based setting.
“When you feel that parents feel your work is important, it is stimulating. I have something to show them that validates my work and they have a deeper understanding of what is happening here” (ECE 5, Second ECE Interview). For one participant, this underscores the need to complete and display documentation instead of just taking photographs that languish in a forgotten pile:

   And so, definitely it (documentation) helps us to be able to see what we’ve done because often, as we go back looking at things that we may have taken interesting photos of, it’s like ‘wow – look at all the great work we’ve done here.’ But if it isn’t documented, it feels like a piece is missing. (ECE 5, Initial ECE Interview).

Reflection and Relationships

   Relationships. The second theme generated from the research is that of reflection and relationships and how each influence the process of pedagogical documentation and are, at the same time, influenced by this process. The predominant relationships highlighted in the research were those between educators and colleagues; educators and parents; and educators and children.

   Educators and colleagues. ECE participants emphasized the importance of their relationships with colleagues in all aspects of the documentation process. During initial interviews, they spoke of the individual talents and skills that each bring to the process, for example, one might be a good note taker while another is better at photography. They spoke, as well, of the importance of getting another colleague’s point of view when interpreting children’s activities from the photographs and transcribed conversations. As they began to revise their process of documenting children’s activities throughout the six-month research study using more
of a co-constructive process, it became even more important to have a colleague to share in this new experience. As ECE 4 explained:

My co-worker has been my best resource - having someone to write down and reflect and go back to has been wonderful. The fact that we can talk as the day is going - that's great because we don't have to stop and go have a meeting about it. We can talk right there in the classroom with the children. It also shows the children that we're looking at their work and we're talking about their work. They see that their work is having power on us. We're showing them that we're respecting it - we're thinking about it and that's wonderful for them. We're not just looking at it and going 'Yeah, yeah...great.' We're going 'Wow - I've noticed that...let's talk about that.' (ECE 4, Second ECE Interview)

ECE 3 and ECE 4 worked as a team in the same playroom and both expressed enthusiasm about being involved in the study. The process of co-constructing documentation was new to them and they worked together, each using their own particular skills of photography (ECE 3) and note-taking (ECE 4). At the mid-point of the study, ECE 4 left her position for a new one at a different child care centre. The importance of their relationship and the challenges of moving forward without this support was described by ECE 3:

I would have liked to have had my co-worker on the same study...working together. I found that after ECE 4 and I have talked a bit about it -we had an idea on what we were thinking. And then I found it was more difficult moving away from what the documentation we've already had in mind to this type of documentation and to make that change ... I felt that ECE 4 and I were able to slowly move from what we normally are comfortable with. And then when she left it was, like OK, now I have to think about this myself. And as I'm writing the answers of what the child is saying, I'm thinking about
things - I'm thinking about this being tidy. I was thinking about what they're saying and then there were pauses and maybe the child is losing a bit of interest in what we're discussing. Whereas, when ECE 4 and I were working together - when I would talk about this piece of documentation, ECE 4 would write the notes I could easily speak about and ask more questions and then I could just write about it after the fact. (ECE 3, Fifth ECE Interview)

Educators and parents. Mitchell, Haggerty, Hampton, & Pairman (2006) describe the importance of parent/teacher relationships by asserting that “Constructive working relationships between teachers and parents/whānau can enhance adults’ knowledge and understanding of children and children’s learning opportunities, and so contribute to children’s learning and wellbeing at home and in the ECE setting” (p. 3). These working relationships between parents and educators were influenced, in part, by the co-construction of pedagogical documentation. At the onset of the study, ECE participants described how they shared information with parents about the program and about their child’s day. They indicated that they posted programming plans and notes for parents in the hallways and on the front door; and they talked with them briefly at pick-up time, although all participants (parents and ECEs) remarked on how busy drop-off and pick-up times can be. The ECE participants mentioned curriculum nights (once or twice per year) as times when parents found out about programming and all ECE participants stated that parents are always welcome to drop by the program and that they are encouraged to contribute to the program in whatever way they can. Educators at two of the three research sites mentioned a parent Facebook page as another way that parents can see what happens at the centre.
As the research study progressed, ECE participants discussed how the co-construction process was strengthening the relationships between parents and educators and parents and the program. As one ECE participant began to display her versions of co-constructed documentation, she noticed that the children were starting to draw their parents’ attention to the documentation display:

The children involved in the documentation would show their parents photos they were in and talk to them about it. This helped to involve (certain) parents more in their child’s learning. Some parents and children were interested in taking the documentation home so they could discuss it more, because there is often not enough time at the end of a busy day to really look at the documentation pieces. (ECE 7, Third ECE Interview)

ECE 1 spoke of the parents’ excitement upon seeing the co-constructed documentation but wondered if they understood the significance of what was being displayed, “Well, they’re (parents) excited anyway when they see the picture. They get it. Some get it. Some are in a hurry” (ECE 1, Fourth ECE Interview). ECE 3 confirmed that parents were noticing the new documentation and noted how this documentation led to new conversations with the parents about similarities between what is being seen in the documentation and what is being seen at home. She describes the significance of one of these connections as follows:

They (parents) have noticed some of the documentation in the play room with their children. For example, the building that ‘N’ has done. So, we're noticing that he likes to build large and he likes to take risks. So, with that, in the conversation with his parents, we were able to have that discussion and (we found out that) this is what they're seeing at home and this is what he's doing all the time here. So, this allowed me to trust him (as a risk-taker) a little bit more. (ECE 3, Fourth ECE Interview)
This same ECE described how one piece of documentation (Figure 2), which shows a four-year-old girl playing with play-dough, is viewed often by both the parents and that child. She remarked on how the parents read this documentation to their child each time they see it. She described how children are looking to other children’s photos and documentation for ideas ‘to do something’ (ECE 3, Fourth ECE Interview). ECE 7 underscores the value of co-constructed pedagogical documentation as being a way to engage with parents. “Children are the link to parents, not educators, and so this approach involves parents more in their child’s learning” (ECE 7, Fifth ECE Interview).

*Figure 2: Co-constructed pedagogical documentation (ECE 3, Month 5)*

Although the ECE participants appeared unanimous in their beliefs that co-constructed documentation supports the engagement of parents, there were some parents who indicated that
they rarely saw examples of documentation that featured their child, and most parents stated that they had a limited amount of time at pick-up and drop off to view documentation or notice if new documentation had been posted. One ECE participant expressed a certain amount of frustration when parents show dismay over not seeing their own child represented in the documentation. In her remark, she differentiates between co-constructed documentation and documentation that she creates specifically for the purposes of inclusion in an individual child’s portfolio. The latter being created with an adult audience in mind:

How do you select not only the project and also how do you select the participant?
Because often times unfortunately it is what it is. Your child was not interested. They were playing elsewhere. Whatever was happening, especially if it's a big project, it's supported and fueled by a group of children. And you know it's open for everybody. As always. But sometimes it's just not that child's interest. So, to be 'fair' and I am using quotation marks, should I have a piece about every child? Should I like hunt them down and make sure that everybody's picture is included? Because that's what portfolios are for. This is my fallback. (ECE 5, Second ECE Interview)

**Educators and children.** Most of the ECE participants remarked on how their relationships with children were strengthened as they slowed down and spent more time in meaningful conversations with children as a result of the co-construction, individually and in small groups. One participant describes it as follows:

I had the opportunity to spend longer periods of time with the children. We revisited the pictures at that point. What I liked, too, was other children came in on it. One particular little guy was intrigued by that (the documentation) and so were the other children which makes the conversation easier because they see others sitting down and chatting with
them. So, they came around to see the pictures. They were talking about it - naming everybody. And then they said, 'Write it down' so they're noticing I'm writing. I also carry that little blue book (journal) with me now. (ECE 1, Third ECE Interview)

The ECE participants described how the co-construction process allowed children’s ideas to “go deeper with reflection of the challenges they had with their work and the excitement that went along with this” (ECE 3, Second ECE Questionnaire). ECE 1 felt that the process helped deepen her connections with the children by creating opportunities for meaningful conversations and occasions for reflection with the children (ECE 1, Fifth ECE Interview). ECE 7 felt that this process reminded her of the importance of giving the children input into the activities, ensuring that the program reflects the interests and understandings of the children (ECE 7, Second ECE Interview). She reported that “Listening to a child’s perspective and ideas helped me think more deeply about what direction to take in daily programming and made me realize that what I thought a child was thinking may not be accurate” (ECE 7, Third ECE Questionnaire).

**Reflection.** Many discussions about reflection and reflective practice emerged throughout the six-month study. Reflection happened on different levels and in different ways. The following section will delve more deeply into the reflections and reflective practice of the ECE participants, the parent participants and the child participants.

**ECEs’ Reflection.** For the purposes of this research study, the following definition of reflective practice was used, “Reflective practice is ‘…thoughtful consideration of a situation or event that has taken place with the intention of understanding and learning from it and changing or improving future actions’ (Kapoor, 2014, p. 137). It involves thinking critically about your own philosophy of early learning – what your image is of the child, your image of yourself as an early childhood educator and how these beliefs inform your everyday practice” (definition of
‘reflective practice’ from Initial ECE Interview questions). Many discussions about reflection and reflective practice emerged throughout the six-month study. All seven ECE participants described how their participation in the study made them more reflective in their practice. Specifically, all ECE participants talked about how their conversations with children became more reflective, not only when co-constructing pedagogical documentation but during regular interactions, as well. According to ECE 1:

This process has enhanced my personal practice of meeting children where they are. Even though there may be a lot going on in my own head – life…whatever, to listen and respond ‘reflectively’ has improved my work with them. There are times where I may feel guilty about taking the time to sit and reflect in our play environments and this (co-constructing) gives it validation. Our work is important and, through this practice, we are able to pass along ‘the moments’ to parents/other staff/children. (ECE 1, Second ECE Interview)

ECE 2 described her ability to be more reflective as giving her a “deeper understanding of the way the children think” (ECE 2, Second ECE Interview) and ECE 3 remarked that, although she has always been reflective in her practice, now, by incorporating photos in ways that are timely and meaningful, she has a visual context for this reflection (ECE 3, Second ECE Interview). ECE 4 remarks on not only her level of reflection but also how this type of reflective practice has had a positive influence on her relationship with the children:

I think I reflected well before, but now I do it with a different level of understanding. I find deeper meaning to the work the children do. I also feel as if they think their work has more value. Taking the time to talk with them about it consistently made the children want to come and tell me about their work. (ECE 4, Second ECE Interview)
ECE 5 felt that she became more reflective with children in general but not necessarily during the co-construction process:

I am still looking for an engaging format for the reflective conversation. I am not sure that at this age (3 yrs. old) the conversation about past events triggers thinking about the project but rather it shows that someone is interested in what they are doing. Then children’s responses become tailored to get maximum feedback or, if there is no underlying emotional need, children easily disengage. (ECE 5, Second ECE Interview).

Throughout the study, this participant struggled with what she felt was a contrived or unnatural process of asking the children to reflect on their experiences after the fact. She felt that the children were either not interested in reflecting on an event that occurred earlier (in her words, ‘they have moved on’) or, when they did reflect, it was because they were motivated by a desire to gain and maintain the adult’s attention, citing examples where the child ‘made up’ details of the event because they felt that is what the adult wanted to hear. Carr (2011) describes in her examination of teachers’ conversation strategies how this is tendency to make up new details in a reflective conversation, can be a common event, “When the children were co-authoring the conversation, they tended to take it in unexpected directions” (p. 263). It is noteworthy that ECE 6 reported that the children she talked with during the co-construction process added details to their retelling of events as well, either misremembering what happened or telling a completely different story (Figure 3). This caused her to question if the children were doing this deliberately or if it meant that they were just not capable of reflecting:

I just find it's interesting because when they were building I was listening to their conversation and they said that this is a jail that has three rooms because there were three people. So, what they said at the time (that it was a castle) and what they said after (it was
a jail) was different. Here they were saying it was a jail. Reflection is not really what happened here. It was like they were mixed up. (ECE 6, Third ECE Interview)

ECE 6: What are you doing in this picture?
C: It’s our house with guns.
S: No, it’s our electrical jail.
C: We started building after ‘D’. We practiced how to build.
S: It took a lot of pieces.
ECE 6: What would you like to add?
S & C: Nothing. There is nothing to add.
C pointed to each square with the children “One for me, one for S. ‘O’ wasn’t there because the camera was too small.
ECE 6: When did you do this?
S: Last Friday
C: Long time ago

Figure 3: Co-construction of pedagogical documentation (ECE 6, Month 2)
Although ECE 5 did see value in reflecting with children, she felt that it should be more spontaneous and ‘in the moment’, rather than on an adult-driven agenda of co-construction. She detailed these sentiments in a piece of documentation (Figure 4) which she writes for an adult audience as a way to summarize her experience in the project.
“I am captain’s mom.”

ECE S: What were you doing?
M: Sailing.
ECE S: I was sitting there.
ECE S: Who were you?
M: Captain.
ECE S: Captain’s Mom. Cause we wanted to be captains so we found a ship. And I got there first.

Then V described a conflict, which did not take place during that time... She described her actions, words, and feelings in detail.

When she was done talking, she asked, “Can we go now?” and went back to her play.

Cl: It’s a baby. He cut his arm open.
ECE S: And who is the baby?
Cl: Captain. He was watching us.
A: The baby wants to protect everybody on the boat.
Cl: He was the Baby Queen.
During the final interview, ECE 5 explained her perspective in this way:

Yes, there is definitely a value in reflecting with children. It gives them the opportunity to recall their ideas, revisit their work, and maybe even see their own progress. But we need to be aware of the emotional component of those conversations and make sure that they are not just a vehicle for seeking an adult's attention. In my experience, children are reflective and they have a need to share their ideas and their work and we should be able to jump in -- in the moment -- to support the conversation. This doesn’t usually happen on our schedule, these (conversations) are not always relevant to what's happening around, they are often difficult to capture, like on the way to the park, when children just walk and talk to me. (ECE 5, Fifth ECE Interview)
Despite ECE 5’s conviction that the co-constructive process was not necessarily appropriate for three-year olds, she did feel that her participation in the project made her more attentive to how she spoke to children during their activities. She noted that she was being more mindful and more intentional in the questions she posed and in paying specific attention to not only the children’s answers but their interest in conversations about their activities:

But I started paying more attention to how we talk to children about their work in progress and I started paying more attention to, basically, if I come in and they’re doing something, what is it that I’m saying to them? So that’s not really documentation but sort of like a prerequisite to it. (ECE 5, Third ECE Interview)

ECE 6 found that the co-construction process allowed her to “reflect on children’s actual voices and thoughts, which is more important than what I think they are doing” (Second ECE Interview). She compared this to her previous method of documentation which she describes as ‘just documenting what the children are doing’ stating that in this more traditional method of documentation “it was easy to just document my own view on children’s thoughts and put value on those thoughts” (Second ECE Interview).

ECE 7, who joined the research study at mid-point, felt that she was getting closer to where she wanted to be in terms of her ability to both be intentional in her practice and reflective with her relationships with the children. She was encouraged by her own experiences and by those of her colleague (ECE 1) in co-constructing documentation with children:

I think it’s so important that we really go deeper into what they’re thinking. It’s not just superficial. It's just that we're seeing all these moments. And look at all this going on and (it's not just) 'Here's the picture' but also, we’re listening to what they're thinking about and how they are testing their ideas... I think it's deepened it (conversation) a bit which is
where I've been trying to go. I've had moments of this but it just seems to be...I feel like I'm getting closer. (ECE 7, Fifth ECE Interview)

Participants reflected on how the process of co-construction provided insight into their understanding of child development, and specifically, child’s metacognition. Specifically, they remarked on how the experience gave them an opportunity to reflect on children’s level of understanding (ECE 6); their ability to express their opinions and ideas (ECE 7); their decisions on what is important and why (ECE 3); their communication skills, their memories, and their ability to articulate their ideas (ECE 1). Three ECE participants expressed a certain level of surprise at the ability of the children to recall their experiences and reflect on what they have done. As ECE 1 stated, “They do not veer off! They don’t even make something up. It’s so real to them” (Third ECE Interview). ECE 7 stated that “they seem to remember a lot” (Second ECE Interview). They remarked on how the process of reflection provided children with a framework to examine their work, revisiting it when they began working on a similar project at a later date. ECE 3, who remarked that she was starting to hear words like ‘teamwork’, ‘collaborate, and ‘construction’ from her preschool aged group during the co-construction process, stated:

I think what I'm learning is that children are able to reflect on what they're doing. And it does appear that it gives them a little bit deeper sense of what they've done. Also, it's given them new language - new words for thing. So, as they go back and look at their documentation they're explaining it in a different way. But as the days go by it seems like that they're thinking about that work and building from there and going back at it again. So, it's not like they always keep starting from scratch. (ECE 3, Fourth ECE Interview)
Two respondents (ECE 3 & ECE 5) expressed the notion that the younger children in the study (three-year olds) were not as reflective as the older children which they speculated was either a function of language development (ECE 3) or a lack of interest in discussing past events (ECE 5):

What I'm finding is that the younger children, like the three-year olds, are not as reflective as the older children. So, when I gave them a picture to look at they would actually just point out things. And then they would actually notice more things that were going on in the background of the photo as well. Whereas the four or five-year olds were like 'Oh yeah! I remember that and I want to do this and I forgot I needed that’. So, they were able to reflect more on what it is that they're doing and what they want to do whereas the 3-year olds were just...'look at this photo.' And again, I think it has more to do with the language. (ECE 3, Fourth ECE Interview)

ECE 5 expressed a concern in month 4 of the study that maybe there was something that she was not doing right and that is why the threes and early fours in her room were not providing commentary on past events as part of the co-construction process:

Is it that I just want too much from them? Because thinking about the examples (of documentation) that I read about or saw in books, they seem to be coming from older children or it might be a group of mixed ages but it seems that it is fueled by 4 or 5-year olds who are interested in those in-depth discussions and who would stay at the table and actually do that thinking - verbalizing their ideas - thinking about other things. Like what's happening in the four-year old classroom (at this research site) because they have these deep philosophical discussions there, right? But my threes and early fours - they are just not there yet, I think. (ECE 5, Fourth ECE Interview)
Figure 5 provides an example of ECE 5’s documentation at the four-month mark of the study. She eventually concluded that the children’s chronological age did play a significant role in determining their ability to participate in the co-construction process. This sentiment was not expressed by all participants. ECEs 1 & 7 who worked with a similarly aged group remarked that they were continually surprised by the accuracy of recall and the vivid details and images described by all of the children in their group. It should be noted, however, the younger children (early threes) in the centre where ECEs 1 & 7 worked were in a mixed-age group of children aged 3-5 years old. “It amazes me how in tune they are with what they are doing and how they are doing it. It is remarkable how they remember it exactly” (ECE 1, Third ECE Interview).

**Boats and Cars**

*What do you see?*

N: A and me and M – we are sailing on a boat...and A has a bump on his head.

A: And N’s talking – but I can’t see her talking.

N: Yeah...my mouth is open.

*What were you thinking about?*

A: About a boat

N: We were sitting on the boat with race cars – they were on the boat too. And A is looking – we were fixing the boat

*Figure 5: Co-constructed documentation (ECE 5, Month 4)*

*Note: The original documentation was hand-written. It was formatted using Power Point for the purposes of inclusion in this document.*
**Reflective Dialogue Prompts.** Each of the participants was provided with a set of suggested dialogue prompts to assist them in their reflective conversations with children (see Appendix B). The ECE participants used these prompts with varying degrees of success, and with varying opinions on which ones were most effective. Some participants felt the questions were too advanced for their group while others saw them as opening up their conversations in ways that they hadn’t done before. Often the participants revised the prompts or added their own questions as prompts. The prompts that asked children to recall an event were often used as conversation starters. These included questions such as “Can you tell me about this photo?”, “Tell me about your work”, or “What are you doing here?” Prompts that attempted to evoke a more reflective response, for example, “What were you thinking here?” had mixed reviews, with a few of the participants stating that this type of question provided children with more of an opportunity to go deep. However, the majority of the participants said that the children described what they were doing rather than what they were thinking during the episode depicted in the photo and seemed unable to articulate the thought process behind the experience. “What will you do next?” yielded good results with children providing various ideas on how they could follow up on an idea or refine something that they already did, adding a layer of intentionality to the conversation and the program.

Two particularly useful prompts, according to the participants, were ones that required the child to look at the perspective of others. These were “What were the other people/kids/ doing in this picture?” and “What would you like people to know about this?” These prompts seemed to invite the children to add a different dimension to their discussions, perhaps with the understanding that the ECE and/or other people require a more detailed explanation of the focus event because they weren’t there to witness it. Overall, the prompts served as a jumping off
point for open-ended conversations. As one participant stated, using the prompts influenced her questioning techniques with the children:

I felt that maybe these questions are more directed towards the process rather than asking a child about what they made… I think (my questions) are definitely more reflective now. And the children can feel, I think, that it is more reflective - that they actually have to think a little bit more and not just be...'Well this is my work.' Or 'I did this with blocks.' So, I find that they may be a little more detailed in their description.

Figures 6, 7, 8, and 9 show examples of documentation using the reflective dialogue prompts.
Question:
What was happening in this picture?

Chase: “We dropped the remote.”
“This is where we left, my Harley and Rhye left.”
Chase’s observation:
“we left.”

Question:
What were you doing in this picture?

Rhye (red top): “putting movies on.”
Harley (green top): “I can’t remember.”
Chase’s observation:
“We came back. We went to grandma and grandpa.”

Question:
What were your friends doing?

Chase: “He (Rhye) had a spot.”
(“painting to the couch.”)
Figure 6: Co-constructed pedagogical documentation (ECE 2, Month 2)
Co-constructed pedagogical documentation

Tell me about your work:
“I built a big ice block. I put snow in the bin with a shovel and filled it to the top then I dumped it over by myself.”

Does this work remind you of work you’ve done before?
“Never before have I done that. I tried to make a big mess of snow but then a shape came out.”

Will you do this again?
“I have an idea to build one again but I will need help to shovel because the snow is now frozen into ice.”

Figure 7: Co-constructed Pedagogical Documentation (ECE 3, Month 3).
Note: The original documentation was hand-written. It was formatted using Power Point for the purposes of inclusion in this document.

Figure 8: Co-constructed pedagogical documentation (ECE 3, Month 5)
Figure 9: Co-constructed pedagogical documentation (ECE 4, Month 2)
Parents’ reflection. As part of this research study, parents were asked to reflect on their understanding and experiences with pedagogical documentation. Of the 45 parents who responded to the initial parent questionnaire, 21 (47%) indicated that they were aware of documentation displays that included their own child at the centre over the past month, and 24 (53%) indicated that they did not notice any documentation displays including their child in this same time period. Documentation displays were defined as ‘pictures or stories about a particular adventure/exploration/activity that your child was involved in at the centre over the past month.’ Five of the seven parents interviewed said that they were aware of documentation, however, only three mentioned that their child was featured in any of the documentation displays. Parents were mostly aware of documentation that was contained in portfolios or ‘binders’ rather than displays. They spoke of the lack of time that they have during pick-up and drop-off to look at displays and more than one parent talked about how, because the displays were so seldom changed, they became more like ‘wall paper’ and therefore not noticed.

Documentation displays are designed, in general, to provide insight to their audience on what children are doing and learning when they engage in various play activities. With this in mind, parents were asked to describe their current understanding of what their child learns through play and then, in the final interview and questionnaire, they were asked again about their understanding of play-based learning. In terms of understanding what their child learned through play, 40 of the 45 initial questionnaire respondents (89%) agreed or strongly agreed that they understand how their child learns through play, although, 32 respondents (71%) stated in a follow up question that they would like to have a greater understanding of how their child learns through play. The seven parent participants interviewed for the study spoke at length of the benefits of a play-based program for their child, citing many examples of what their child is
learning including communication skills, patience, learning how to make mistakes, creativity, imagination, problem-solving, independence and playing well with others. Several parents spoke of the important social aspects of play, especially when it comes to children who do not have siblings or whose siblings are much younger. “He is the only child and no matter how much my wife and I try, we will never behave like a three-year-old, let alone 12 three-year olds, so that environmental richness is something that is hard to provide at home” (Parent 1, Initial Parent Interview).

At the conclusion of the study, 19 of the 26 parent questionnaire respondents (73%) to the final questionnaire said that they had noticed documentation that featured their child over the past six months (study period). When asked if the documentation displays increased their understanding of what their child learns through play, 20 of the 26 respondents (77%) answered in the affirmative. Fourteen respondents (54%) said that they were aware of their child being involved in the co-construction of documentation and 18 respondents (69%) noticed an increase in the number of photo displays (documentation) at the child care centre during the study period. One of the parents remarked that she “uses the activities and ideas demonstrated in the documentation to have conversations with my son. It seems to peek (sic) his interest and helps him to recall past events. He loves to discuss his ‘work’ at school” (Parent comment, Final Parent Questionnaire). Another parent stated, “It gives me a view to their day and how they are interacting with others and what they are learning. I’m able to carry on discussions and experiences outside of daycare” (Parent comment, Final Parent Questionnaire). Four of the seven parents who were interviewed stated that they noticed a difference in the amount and quality of documentation. The other three said that they had not noticed documentation but mentioned that this might be because of the rush that they are in at the end of the day. One
parent who did not notice additional documentation did state, however, that her child is telling her more about what happens during the ‘run of the day’ although she wasn’t sure if this was a result of the co-construction process or if it was more a function of her child’s development over the six-month period. Because the study ended in June and the weather was warmer than when the study began, parents indicated that the children were generally outside when they were picked up and, therefore, the parents went directly to the outdoor area to collect their child and their belongings. This means that if a new documentation display was inside the centre, the parents would not have necessarily seen it.

**Children’s reflection.** Consistent with a social-constructivist research paradigm that recognizes that knowledge is socially constructed and in keeping with a child’s rights based approach to research (Lundy & McEvoy, 2011), this study provided an opportunity to include the children’s voice in the research. At the end of the study period, nine children at one of the research sites participated in a focus group to discuss their reflections on the purpose and process of pedagogical documentation. (See Figure 10 for photos of the focus group). The focus group was facilitated by me, as researcher, along with the ECE participant who worked most closely with these specific children (for Focus Group questions, see Appendix H).

The children participating in the focus group, who ranged in age from 3.10 years old to 5.5 years old, had the opportunity to describe their own lived experiences with co-construction of documentation and were able to talk in general on their views about why they think adults ask them questions about their work. As well, they reflected on what kind of questions they would ask, if they were ‘the teacher’.
Figure 10: Photos of Child Focus Group
The focus group questions began with a question about the children’s general awareness of pedagogical documentation, described as photos of the children at play. Six of the nine children said that they could remember seeing their photos included as part of a photo display of documentation either in their classroom (playroom) or in the hallway. A few of the children mentioned that they do not have pictures of themselves at the centre but they do have photos of themselves at home. After a brief discussion about these photo displays at the centre, I introduced three samples of co-constructed documentation (one at a time) that featured children at this centre which were created by the two ECE participants at this site and had been on display at the centre for the past two months. I asked the children to comment on them. Two of the focus group participants (Ch, 4 yrs, 1 mo. & Co, 3 yrs. 11 mos) were involved in their first example, called ‘Muddy Mud’ (Figure 11). They recognized themselves in the photos, although no faces could be seen, and they recalled the event, “That’s a picture of me digging and that guy was helping me.” (Ch, 4 yrs. 1 mo.).

Muddy Mud

What are you doing here?
“We were digging lots of mud.”

How did you know how to do this?
“I dig at Poppy’s house.”

Do you use shovels?
“Yup – we work.”
In the second example (Figure 12), the children recognized the documented event as being one that involved a child at the centre (B, boy, 5 yrs. 0 mos.) who was not present in the focus group. They recalled the incident of how this boy worked very hard at putting a handle on a bucket over and over again. When asked “Why do you think (ECE 7) took pictures of this, one child remarked “She took a picture of it because he’s good all the time. He fixes it whenever it’s broken” (Em, 3 yrs. 10 mos). It is interesting to note that these two documentation displays were done two to three months prior to the focus group yet the children could recall specific details about both incidents.
B’s Bucket

What were you doing in this picture?

Fixing a bucket. I was trying to click it in. I started on this 'cuz the other (side) was already in.

B’s Bucket

How did you decide what to do next?

I clicked on the other side – it fell off.
**B’s Bucket**

Was somebody helping you?

*I don’t know who it was. It came off again. I clicked it back. Easy*

**B’s Bucket**

Did you have any other problems?

*It slid out. I clicked it on again. Didn’t work. I did it again.*

**B’s Bucket**

How many times did the handle come out?

*B holds up 4 fingers.*
B’s Bucket

Two of the children (E, girl 4 yrs. 4 mos. And B, girl, 5 yrs. 5 mos) took some time to describe a sample of pedagogical documentation (Figure 13) that was co-constructed with ECE 7, describing what it was and how it was made. This discussion led to the next focus group question which asked why they think their teacher took photos of them while they are playing. E (girl, 4 yrs. 4 mos) remarked “because it’s good” referring to her own artwork that was featured in the documentation, presumably meaning that she thought that the teacher felt that the artwork was good enough to warrant a photograph.

The children were then asked why they think teachers ask them questions about their play, using photos as part of their conversation. They responded with reasons such as “Because it helps us learn” (E, boy, 4 yrs. 8 mos); and “Because we have to listen” (C, 3 yrs. 11 mos). The children were then invited to pretend they were teachers and were given a series of photos to look at (stock photos of children playing in various situations). For each photo, the children were asked to think of what questions they would ask the children in the photos if they wanted to know more about what was happening. When shown a photo of a boy playing with a train, one
child said, “I would ask him about the signs (traffic signs)” (E, girl 4 yrs. 4 mos.), while another child (C, boy, 3 yrs. 11 mos.) said “I would ask him why does everything say ‘99’?” (two signs had the number ‘99’ on them). The children were shown a photo of children playing in a mud puddle, while still pretending to be ‘teachers’, and were asked again, ‘What questions would you ask the children in the photo?’ Several children guessed themselves what the children might be finding in the puddle, e.g., ‘a frog’, ‘a toad’, ‘a crab’. T (boy, 4 yrs. 3 mos) responded “I’d ask them, can I see it?” presumably in reference to whatever it was the children in the photo were looking at in the mud puddle. One child (Em, girl, 3 yrs. 10 mos) declared that she, as the teacher, would say to the children “Clean up your mess!” This response caught on with the others who were quick to respond to the subsequent photos by saying, “I would say ‘Clean up your mess!’”, apparently imagining that this was the most ‘teacher-like’ response to children who are actively playing. This was an interesting take on the adult-child relationship and one that the ECE participant laughingly called ‘very revealing’.

The focus group concluded with the two girls who originally described their artwork documentation (Figure 13), coming back to this same work, wanting to talk more about it. They added more details on what they did, “We made rivers and lakes, and used pom poms and the feathers can be fishing rods” and, when asked by me “How did you decide what materials you wanted to use?” responded “That’s how you make rivers.” (B, 5 yrs. 5 mos.). Two of the boys who were not involved in that piece of documented artwork, but who were listening intently to the girls describing it, declared that they were going to go make pictures, too. “I’m going to make a picture of my dog” (Co, 3 yrs. 11 mos); “I’m going to make a picture of MY (italics mine) dog” (Ch, 4 yrs., 1 mo.). The focus group ended with these two boys deciding what materials they were going to need to make their pictures.
Processes and Practicalities

Each of the ECE participants and parent participants had some experience with documentation prior to their involvement with the study although level and depth of these experiences varied. Over the six-month study period, the participants’ ways of experiencing the documentation process shifted, resulting in rich dialogue about how to document, why we document, and what supports are necessary if co-constructed documentation is to be effective and successful. These findings contribute to the third theme, “Processes and Practicalities”. This section will begin with a closer look at the processes involved in documentation and will end with an examination of the practicalities that influence the documentation process.

Processes. Processes refer to the ‘how’ of documentation. As part of the interview process, ECE participants described how they have traditionally created documentation and provided me with samples of their documentation pre-study. The participants had varying levels of comfort and experience with the process and different levels of pre-service training and staff development on how and what to document. Based on my observations and analysis of the document samples, over time, the ‘how’ of documentation changed as the participants attempted to co-construct the documentation with children in ways that were new to them. This evolution brought with it some discomfort and some revelations about how changing the documentation process can have a ripple effect on their interactions with the children and the program.

Initial Processes. At the onset of the research study, the ECE participants described themselves as being somewhat confident (57%) or confident (43%) in producing and displaying pedagogical documentation. Two of the respondents (ECE 5 and 6) indicated that they had learned about pedagogical documentation as part of their post-secondary education. The descriptions of the process that all participants provided were consistent with the current practice.
of many ECEs that I have observed over the past several years. Specifically, the ECEs observed children in an activity, often an adult-selected activity such as a visit to the library or a walk outside or a cooking activity, took photographs, selected a specific photo or series of photos, and created a display which included the educator’s interpretation of the event which often focused on a specific developmental outcome or outcomes (See Figure 14). Some educators reported that they included the children’s voice by either recording the comments that were made at the time or asking for additional input from the children by asking them questions or inviting them to sketch or draw a picture that will be included in the final display. As described by one participant:

Often, we’ll visit the library or a specialty source whether it's the art gallery of some sort. Then we would take photos and we would show the children or possibly document maybe what the child had said in that photo, during that time. And then we would put it in some sort of panel. (ECE 3, Initial ECE Interview)

Figure 14: Sample of documentation pre-study (ECE 3)
Once the study was underway and the ECE participants began their attempts to include the children as co-constructors of the documentation, they expressed some uncertainty and confusion about how to best proceed. They were challenged by the level of children’s involvement – how much to involve them, when to involve them and what this involvement might look like. For one participant, this uncertainty remained throughout the study:

So that co-construction piece seemed to be missing naturally through the whole process. This is what I'm puzzled about and this is what I'm playing with because the question is 'How does the child contribute?' But when I pull in the child they seem to be a little bit puzzled as to why? I've been here. I play. I did all this work. Move on…what do you want from me?  (ECE 5, Fourth ECE Interview)

**Concerns about final product.** As previously mentioned, other participants were concerned about their end product. They expressed that because the final product would be viewed by not only children but an adult audience as well, that it needed to look neat and professional. They expressed concern about spelling errors (their own), and poor penmanship (their own), and, for this reason, they wanted to be able to create a draft with the children and then a final product, generally on their own time, to be displayed.

I'm very concerned (about what it will look like) - my hand writing is all over the place and I'm taking notes as I go. And then I will put the words alongside the child's work - of what they're reflecting on. And so, what happens is that I end up not using my hand - written copy. I end up of typing it and attaching it to the photo. (ECE 3, Second ECE Interview)
Some participants were more relaxed in their expectations of what the final product should look like. “I think we get so ingrained into how it has to be perfect looking. But, it doesn't have to be perfect - it can just happen...” (ECE 4, Second ECE Interview). However, this reluctance to display hand-written documentation or first-draft documentation remained a challenge for several of the participants. See Figure 15 for an example of a comparison of typed and hand-written documentation.

A Nest for Foxes

![Image of a nest for foxes]

**What did you do?**
“I made a nest for the little foxes.”

**Why did you make the nest?**
“Because foxes are so cute.”

**Why did you make the nest like this?**
“I used two sticks, a lot of pinecones. The little pine cones are eggs.”
“We bury the eggs under grass.”

**Whose eggs?**
“Foxes”

**Why do they have eggs?**
“Because...”
“We are foxes...we are not foxes...we just pretend to be foxes.”

![Image of handwritten documentation]

*Figure 15: Comparison of Handwritten and Typed Co-constructed pedagogical documentation (ECE 6, Month 4)*
The eventual co-constructive process. Over the six-month research study period, each ECE participant developed their own process when co-constructing pedagogical documentation, although there were some very specific similarities. The process began with the educators taking note of an episode or event in which an individual child or group of children were involved. The events happened indoors or outdoors and the decision to take photos of the event was usually made by the adult, rather than being initiated by the child. The photographs would feature one child or two or more children. Sometimes the photographs featured a child’s work, e.g., a block structure, or a drawing without a child present. These notes (each educator was provided with a journal as part of the research study) were used to assist them when recalling the event with the child or children involved. After a period of time ranging from one day to three weeks later, the educators found a time and place conducive to conversation and presented the photographs to the focus child/ren as a catalyst for discussion. In one case, (Figure 12), the ECE participant provided the child with a selection of photos and asked him to select which ones he wanted to include in the documentation display.

Dialogue and Discussion as part of the process. As part of the research study, each ECE participant was provided with examples of reflective dialogue prompts to assist them in their discussion. Some of the participants used one or two of these prompts to start the discussion and then let the conversation flow from there where a few others tried several (five to six prompts) in the discussion. Participants noted that using fewer prompts was more effective, suggesting that two or three prompts were sufficient. If too many questions/prompts were used the children would either lose interest and walk away or say ‘no more questions’.

During the conversations, the ECEs would try, in various ways, to capture the children’s comments. Some of them would write down what the children were saying. Two of the
participants tried to audio record the conversation to transcribe later. In all cases, the educators included either part or all of the conversation in their completed documentation. In most cases, the educators did not add their own interpretation of the event, focusing on the premise that the documentation was to be written with the children and for the children in order for it to meet this study’s definition of co-constructed documentation. In one case (Figure 4), the ECE participant included her own interpretation of events, relating more to the process of co-construction rather than the event itself. This interpretation was designed for an adult audience.

The adult-child/ren conversation seemed to be the common element among all the examples of documentation and the key factor in setting this type of documentation apart from the educators’ usual means of documentation. Where and when these conversations happened varied. Most of the educators found a quiet place with few distractions to talk with the child or group of children. Occasionally, if other children were interested in the conversation, they would join the educator and the child, even if they were not originally involved in the event. Two ECE participants held their adult/child conversations during circle time or small group time which meant that several children in the setting may not have participated in the original event and were not necessarily interested in the discussion.

Once the conversations were held, recorded, and transcribed, the documentation display was constructed. These displays varied in their appearance in terms of how many photographs were used, how they were positioned on the display and how much text was included. For the most part, the text was handwritten, although two participants did use MS Word to create their text. Not all of the examples of co-constructed pedagogical documentation were displayed during the study period. The participants would bring their displays to me to view during our monthly interviews but not all participants were comfortable in posting them publicly. Four
participants expressed a discomfort with the handwritten text saying that it ‘looked terrible’ or ‘my handwriting is awful’. They considered the handwritten copies as being a first draft and said that they would ‘fix it up’ before they put it out for display.

**Intentionality.** The term ‘intentionality’ was defined to participants as “having a purpose behind every decision and skill in articulating the reasons for actions” (Feeney, Moravcik, & Nolte, 2016, p. 6). Intentionality is integral to the documentation process as it is what drives the educator to observe children and it influences how the educator uses the information from her observations and reflections to create a developmentally responsive program.

Four of the seven ECE participants were unfamiliar with the term in reference to their practice, although, after hearing the definition, all of the participants provided examples of how they have been intentional in their role as early childhood educators. At the conclusion of the study, four of the five remaining ECE participants indicated that their programming decisions and interactions with children were becoming more intentional as a result of their involvement with the co-construction process. ECE 1 described it in this way, “Co-construction allowed me to go ‘in that moment’ with the child/ren and to understand the thinking that evolved from their play. In response, I could expand on their play – offering activities that related to their interests” (Third ECE Questionnaire). ECE 7 stated that “Listening to a child’s perspective and ideas helped me to think deeper about what direction to take in daily programming and made me realize that what I thought a child was thinking may not be accurate” (Third ECE Questionnaire). ECE 5 explained that her level of intentionality has “gone to the next level” (Fifth ECE Interview) and ECE 3 felt that she was listening with more intent because of her focus on trying to include the child’s voice in the everyday preparations for activities in her play-based environment. (Third ECE Interview).
Practicalities. The ECE participants reported that the co-constructing pedagogical documentation with children is influenced by many different factors including the setting, the timing, the materials available, the technical considerations, the subject being discussed, the types of questions being used, and the ages and personalities of the children participating in the co-construction process. By the time the study concluded, the ECE participants reported that they became more skilled in knowing how, where, and when to co-construct and they provided many practical suggestions on the overall process (see Table 7).

Table 7

Factors that influence the co-construction of pedagogical documentation: Practical Considerations

<table>
<thead>
<tr>
<th>Time</th>
<th>Length of time for reflective conversation: 5 minutes – 20 minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Length of time between the event and the reflection: one day later to one month later</td>
</tr>
<tr>
<td>Timing</td>
<td>Particular times of day that are best for a discussion: during rest time (if the child is not sleepy; during or directly after snack or meal time; when there are fewer children present, e.g. end of the day, small group time when the co-construction is the focus of the group.</td>
</tr>
<tr>
<td></td>
<td>Worst time of day for a discussion: During child-initiated, free play time.</td>
</tr>
<tr>
<td></td>
<td>At all times participation must be voluntary and children’s rights to privacy must be respected.</td>
</tr>
<tr>
<td>Setting</td>
<td>Best setting: a quiet area with few distractions; snack or lunch times; during small group time.</td>
</tr>
<tr>
<td>Materials</td>
<td>Digital camera, iPad/tablet or smartphone, computer, printer, sturdy paper for displays, markers, scissors, journal to take notes</td>
</tr>
<tr>
<td>Technical considerations</td>
<td>Need access to printer and ability to send photos to printer (internet access); need time to upload and print photos or access to administrative support to do so. Using personal smartphone to take photos is generally prohibited. Need access to Power Point</td>
</tr>
<tr>
<td>Administrative support</td>
<td>Paid planning time; access to technical materials</td>
</tr>
<tr>
<td>Documentation display</td>
<td>In a conspicuous place for both children and parents to see it, hallway, bathroom, close to cubbies.</td>
</tr>
</tbody>
</table>
**Time and timing.** Time was seen by all seven ECE participants as a major challenge to the process of co-construction, “Even trying to (sit down with) one child when I have 20 something children in the classroom is hard. We have children with special needs and behavioural issues so it’s hard for me to talk with just one child or two children” (ECE 6, Second ECE Interview). This reference to time included finding the time to sit with individual or small groups of children to co-construct documentation during the day; determining how much time can and should lapse from the focus event to the discussion about the event; finding time to upload and print the photos and complete the documentation on their own; and selecting a time when the children were amenable to having a discussion. Although each of the ECE participants were provided with paid planning time, generally one hour per week, all participants agreed that more time was needed to properly engage in the co-construction process. The educators discussed how finding the time became a matter of priorities and saw the importance of carving out that time for discussion. As ECE 1 described it:

That time is super important when constructing documentation with the children. Because you do have to take that picture and you do have to be in that moment but you also have to give them time. If we're going to sit down and talk to them we better make the time and take the time to finish that conversation. So, you can't be zipping away or somebody else can't be interrupting. (ECE 1, Fourth ECE Interview)

This same participant remarked on how she had ‘always conversed with the children’ but now she is finding that her conversations are more intentional (ECE 1, Third Interview). This intentionality was a common thread running through the experiences of the ECE participants. ECE 3 felt strongly that the daily routine for a typical preschool-aged room should come to include specified and intentional time for reflection so that it doesn’t remain a sporadic practice
with little or no follow through (ECE 3, Fourth ECE Interview). This would require working with a colleague who understands that when one teaching partner is in discussion with a child as part of the co-construction process, the other teaching partner could support the remainder of the group (ECE 3, Third ECE Interview). ECE 7 described the value in “getting that little time with somebody on their own when they are usually in a group for most of the day. It’s kind of nice to get that” (Second ECE Interview).

The length of time between the focus event and the subsequent discussion of the event varied from one day to several weeks. In all cases, the educators found that children were still interested in discussing the event even when it occurred several weeks prior. In some cases, the catalyst photo jogged their memories and they could remember exact details about who was there, what was said, and what was done. In a few cases, children added embellishments to the story or perhaps misremembered the event – or remembered it differently than the educator. In these cases, the educators felt that this might have been a function of the children’s age and ability to remember details. ECE 3 describes one situation where a child added a component of a ‘windstorm’ to her retelling of an event, based on a photo of the experience (Figure 16).

And with this example, you know, they’re often building structures and I thought they were going to discuss the height. That’s what I thought they were focused on. I thought they were just trying to build it to climb up higher. But the windstorm.... when I observed this (original event), I didn't see her playing a windstorm. So, I don't know if when she looked back at this photo and saw the fan in it, if that gave her an idea of a windstorm. (ECE 3, Fifth ECE Interview)
Figure 16: Photo of block building activity with a fan visible in background
ECE 1 expressed surprise at how well children remembered details of events, even though they occurred as much as a month prior to the conversation:

Reflecting shows and tells us how complex, brilliant, and artistic, creative thinkers children are and they can easily articulate their play and their thoughts. And I think it takes time to get them to articulate. And then, when speaking and reflecting to me, they relive the moment - actually being excited - I've found that they're excited whether it's a day or two weeks or a month - they can go right back to that moment. And they still are excited about it or they wouldn't want to talk about it. (ECE 1, Fifth ECE Interview)

The timing of a conversation with the children was an important influence on the quality of the discussion. Both adults and children needed to be ready and willing to have a conversation as part of the co-construction process. ECE participants were careful not to interrupt children’s play to have these conversations and looked to find a time when there were few distractions. They recognized that they, themselves, can be a distraction to the children. As one participant described it “The gravitational pull of the teacher standing there with a (metaphorical) flashlight and that can upset the very gentle balance between the child and the materials” (ECE 5, Fourth ECE Interview). Finding the right moment was difficult but keenly important with some conversations lasting very briefly (3-5 minutes) with others lasting for half an hour. The participants reported that the conversations needed to be authentic, meaning that the adult was truly interested in hearing the child’s viewpoint and the child recognized that their input was valued. As well, the child would need to be in the right frame of mind to have a discussion, meaning that he or she was not upset or stressed about something else that may have happened or is currently happening. One ECE participant described a situation that she found particularly puzzling, regarding a conversation she had with a child about the drawing he made
of a monster. (Figure 17). The creator of this picture had previously described his picture in
detail to her, noting the asymmetry of the eyes, the shape of the teeth, and the comments being
said in a speech balloon above the mouth of the monster. Ten minutes after this conversation,
the ECE participant asked the child to describe again what he said so that they could document
this together. She invited another child to sit with them while they talked about his sketch. The
ECE described this second conversation as follows:

So, I said 'well what do you see? Tell me about it.' He says, 'I don't know.' And he seems
uncomfortable and he starts playing with his T-shirt, you know. It did not work well. This
is not what I like to do - interrogation right? Like something different. (So, I say) 'Is it a
person?' 'No, it's a monster' (in a sad voice) 'And what are those?' 'His teeth'. 'Those are
his lips.' (sad voice) and I keep asking 'what is this?' 'his nose' and 'his eyes' and he keeps
talking those very short sentence although he can talk on a very sophisticated level. And I
commented and said, 'his eyes are big' and he says 'this one is small, this one is big on
this side...and that's his hair. That's him saying something.' And I said, 'does it say Catch
Me Catch me like before?' 'No, I don't know. (ECE 5, Fourth ECE Interview)

As we discussed this interaction, the ECE participant provided additional detail.
Apparently, the boy who drew the monster picture was involved in a conflict in the ten-minute
period between the two conversations. He was very upset and was only recovering from these
intense feelings when the ECE invited him to tell her again about his sketch. As well, she
reported that he seemed self-conscious when he was talking with her the second time and
reluctant to provide details. Factors that may have contributed to the lack of success and ease in
this second conversation could be the inclusion of another child in the conversation; the timing
of the conversation being so close to the conflict that the child was engaged in; and the fact that
the child had already described his sketch to the ECE previously, which could diminish the authenticity of the conversation.

"Catch me!"

Tell me about your picture.
“I don’t know”

Is it a person?
“No – it’s a monster”

What are those?
“His teeth...and those are his lips. His eyes – one is small and this one is big. That’s his hair. That’s him saying something. He’s saying ‘Catch me! Catch me!”

Figure 17: Co-constructed documentation (ECE 5, Month 5) Note: The original documentation was hand-written. It was formatted using Power Point for the purposes of inclusion in this document.

Another co-constructed situation included a conflict situation (Figure 13), although in this case, the ECE was oblivious to the fact that there had been any type of altercation. This ECE participant discovered a piece of artwork that was left in the art room from the day before. She found this artwork intriguing so she asked who created it and if they wanted to talk about it. As the ECE sat with the child and asked her questions about her picture, the story emerged of how the pink feather instigated a powerful struggle between this child and one of her friends. The ECE eventually talked with both children involved in the situation, both of whom had created artwork featuring feathers (the object of the dispute). She indicated in her interview that one
child mentioned the dispute in the conversation while the other did not. Both of the children were engaged and interested in the co-construction process and spoke freely with the ECE about their pictures. The difference between this example and previous one could be due to the time involved between the dispute and the conversation (ten minutes vs. twenty-four hours) as well as the authenticity of the conversation with the first example being one where the child had previously described his sketch to the educator while, in the second example, the educator was asking questions of the children to which she did not already know the answers.

E’s Pink Feather Picture

Can you please tell me how you made this picture?
First I put one feather there and then two there and more feathers here and there are there’s pompoms and my jewels.

Did you have any problems while you were making it?
No.

How did you make it stick?
I used a lot of glue.
Please tell me about the drawing on the picture.
That was a snowman and he was block because he was old.

Does this snowman do anything with the feathers?
Him's building with his old hands. He needs glue and things like Play-Doh and feathers.

What happened with the pink feather?
We got in a fight over the pink feather, it's mine. It was on my picture and it failed off and I stand really right. That's what I think. B said it was hers from her necklace but actually it was not and it failed off.

B's Feather Picture

And what were you thinking about when you made this picture?

A waterfall and confetti and then there are little dots. So I did that and there were not white feathers or green or purple or pink.
Figure 13: Co-construction of pedagogical documentation (ECE 7, Month 6)

Setting. ECE participants found that the best settings to have discussions with children about their work as part of the co-construction process were during routines such as rest time or quiet time (when the target child was not sleeping); snack and meal times when individual conversations could be held but also groups of children could be included in the discussion; and at the end of the day when the numbers of children present were low. Two ECE participants (ECE 5 & 6) used small group times as a time when photos could be used as a catalyst for discussion. This type of arrangement had distinct advantages and disadvantages. The advantages were related to the fact that the children’s attention could be focused on the discussion at hand, however, the disadvantage was that not all children participating in the small group time were
necessarily involved in the event or activity being discussed. The conversation during these
group times was directed by the adults who asked the children to take turns when answering
questions. There were practical reasons for this, specifically, so that the ECE could record all the
comments being made by the children, however, the quality of the answers was, according to one
participant, diminished due to the formality of the process:

I ask one question and it pretty much has to be the same question asked to the group of
children... 'What do you think about this story?' And it was really open-ended because I
didn't want to influence them in any way. And they gave me one word each. The first
child said ‘good’. And another said ‘beautiful’ and another said 'lovely.' (Me: did you ask
them to keep it to just one word or is that how it happened?) That's how it happened. And
usually what happens is that there is a bit of a copycat process. (ECE 5, Second ECE
Interview)

Small group times, according to Malaguzzi and Gandini (1993) can be the preferred type
of classroom organization in a program that places values on relationships. Programs that follow
curricular approaches such as High Scope, emergent curriculum, and the Project Approach use
small groups as a way of engaging children in meaningful collaborations and conversations with
their educators and peers. Timmons, Pelletier, and Corter (2016) found that children exhibited
higher levels of self-regulation and engagement while in small group settings as compared to
whole group and transition times. Small groups, as defined by Reggio educators consist of two
to four children who come together to discuss a common interest, topic, or discovery, each of the
participants choosing to be involved in this gathering of children and adults. These types of small
groups allow for “the most efficient communication. In small groups, complex interactions are
more likely to occur, constructive conflicts take place, and self-regulatory accommodations
emerge” (Malaguzzi & Gandini, 1993, p. 167). Small groups where the participants and the topic are adult-selected may not encourage this same type of dynamic interaction, which could explain the lack of success that some of the ECE participants reported when attempting to co-construct in a small group setting.

**Materials.** On a very practical level, the ECE participants discussed the importance of having good working materials available to use when co-constructing with children. Materials such as heavy stock paper, e.g. Bristol board, markers, pencils, glue, tape, and scissors were necessary along with a place to store these materials. Having writing materials available for children as part of the process of co-constructing documentation proved to be useful, although not all participants involved children in the actual creation of the documentation display.

In the majority of cases, the ECE participants were the ones to write the content, acting as scribes, while the children talked about their activities or their sketches, during the co-construction process. Some of the participants remarked during their interviews on how the children watched them write and, at times, asked them “Did you write this down?” (ECE 1, Third ECE Interview). In one situation, ECE 5 purposefully left photos of the children on a table in the playroom with a note that asked the children and the other ECEs to comment on the photos, thinking that this would be a prompt for the other adults to ask children about the photos – a form of co-constructing documentation. She noticed, after a while, that a few children were ‘writing’ on pieces of paper next to the photos (Figure 18). This is significant in that it illustrates an example of not only the children’s emerging literacy skills but it demonstrates how the children are making a connection to the literacy component of the documentation process. In other words, documentation = photos + text.
Technical Supports. When speaking of materials, the participants referenced appropriate technical supports. Having access to a computer to upload photos, and create documentation and a good quality printer to print the photos and the displays was seen as essential. In some cases, ECEs were not allowed to use their own smart phones to take photographs due to privacy concerns so they used either digital cameras or iPads that were shared with other staff. Finding the time and having the expertise to quickly upload and print these photos was, at times, a challenge. Good photography skills were seen as an important contributor to the co-construction process. Whether or not to include the child’s face in the photo; how to be surreptitious enough so that the photo taking does not interrupt the children’s activity; and gaining the child’s permission to take photos of their work were all topics for discussion during the interviews. ECE 5 remarked on how the presence of the camera can be disruptive to the children, with some wanting to ‘pose’ for the photo and others feeling self-conscious about their work when the educator approached them with a camera. ECE 7 remarked on this as well. “How to document
without interfering in the child’s play or unintentionally influencing what a child is thinking is sometimes difficult. Although the children are very honest in their opinions, they sometimes like to tell an adult what they think they want to hear” (ECE 7, Third ECE Interview). For the most part, however, the educators described the children as being comfortable with the process and eager to view the photos once they were printed and ready.

*Administrative support.* Several of the supports that the ECE participants described as being essential to the co-construction process are those that require administrative support. Having colleagues who understand and participate in the co-construction process depends upon the willingness of an administrator to support staff development around this process and pair colleagues who are motivated to work together to make co-construction a part of their classroom culture. Having sufficient paid planning time to reflect with colleagues and having access to the equipment to assist with the technical aspects of documentation are also factors that are dependent upon administrative support. Included in these supports would be the development of protocols and policies on engaging parents in the documentation process. In her initial interview, Parent 4 discussed how she had approached the director at her centre about accessing the photos that had been used for documentation to create a type of yearbook for all of the parents at the centre. This came out of a concern that her fellow parents were not able to access the photos or see the documentation as regularly as she was. “Everything stays at the centre – the pictures never leave. And so, I actually had offered to the director and she thinks it was a good suggestion – so we’re going to send an email to the other parents so that they can give permission (for the pictures to be included in a yearbook)” (Parent 4, Initial Parent Interview).
Perhaps most important is the value that the administrator places on the co-constructed documentation and how that value is transmitted to the educators. As ECE described in her fourth interview:

She (director) has spent a lot of time reading the documentation. First when she looked at it on the wall it looked a bit overwhelming – with all of the writing. But as she went back to look at it she said it gave her a really good understanding of what the children are actually doing and what they’re thinking, which was nice. (ECE 3, Fourth ECE Interview)

**Documentation display.** Choosing how and where to display documentation influences who sees it and how it is used. Parents commented that they are not always sure where to look for displays or if a new display has been posted:

It doesn’t always jump out at you and if you don’t go in the room and see that there is a new display on the wall – you might just happen upon it two weeks later and you’re not sure if it was there for three months or just put up yesterday. (Parent 2, Final Parent Interview)

ECE Participants spoke of how they tried displays in various places, including the children’s bathroom or on the hall leading to the bathroom. “It’s on the child’s level – it’s where they wait for their bathroom turn so it gives them something to reflect on or interact with or just look at” (ECE 5, Fifth ECE Interview). ECE 1 noticed that when she moved a documentation display it would renew interest in the children who would revisit the display and talk about with their parents and friends. All participants agreed that the documentation needs to be posted in a conspicuous place for both children and parents, which was generally the hallway or close to the
children’s cubbies and, interestingly, in the bathroom where parents would take their children before they left the centre at the end of the day.

**Parent suggestions.** Parents had concrete and practical suggestions related to their ability to access documentation. As mentioned earlier, parents described drop-off and pick-up times as being busy and chaotic, with not much time to notice or examine documentation displays. Several parents, however, suggested that if they knew there was a new display posted, they would make an effort to arrive a few minutes earlier to see the display. They felt that a well-timed email or a Facebook post alerting parents to the presence of a new display would make a difference:

If there is something timely or something current that involves all or specifically your kid - if they could highlight that. Even saying 'Hey, you might want to check out what's on the wall. (Your child) contributed to this part of the thing or the whole class did this new thing...' A little of that always goes a long way. (Parent 2, Final Parent Interview)

Another parent remarked that the co-constructed pedagogical documentation could be presented and discussed at the regular parent-teacher meetings. Two other parents suggested that the documentation be completed in a format that is shareable with parents electronically so that they could take their time to view it while at home.

**Advice to beginners from ECE participants.** The advice that the ECE participants would offer to any educator who is considering this practice is to ‘just start’ (ECE1; ECE 3, ECE 6; ECE 7, Fifth ECE Interview). It was felt that people new to the process should start slowly, perhaps with just one child or small group. Pay attention to the types of questions being asked, with fewer questions being seen as more effective than too many questions. New adopters of the process should involve the children in meaningful ways, either by inviting them to select which
photos they would like to discuss, having them put the documentation together with the adult, and/or inviting them to draw a picture to add to the panel (ECE 3, Fifth ECE Interview).

Educators new to the process should gauge the audience and consider different levels or styles of documentation and use questions and comments that are very open-ended such as “Well, I didn’t expect that would happen” or “I wonder why…” (ECE 5, Fifth ECE Interview). In terms of the quality of the end product, ECE participants would advise educators to relax and recognize that the process of co-construction is more important than the product. “And don't always think you're not doing it right. I think the important thing is just getting it out there. Don't think about anybody reading it or anything else. Just do it” (ECE 7, Fifth ECE Interview).

**Final thoughts of ECE Participants.** At the conclusion of the study, the ECE participants shared their thoughts on their experiences. All seven of the participants felt that their experience was worthwhile, mentioning that thinking about the co-construction process showed them the value in truly listening to children’s perspectives and the importance of taking time to do so. They mentioned the value that they felt this process had for the children with whom they work. In some cases, they mentioned that this process was beneficial for those children who tended to be more reticent in their conversations and reflections. When asked if using photos as a catalyst for a conversation was helpful, ECE responded:

Yeah - some children can just say whatever they did - I don't need to ask them questions, they just want to say more and more. But there are always those children who don't want to say anything and I try to ask questions but they kind of refuse but by having pictures, they can remember better or they are more confident. I think they speak more when they have the picture. (ECE 6, Fourth ECE Interview)
Some of the ECE participants responded that they became better listeners through the process, listening with more intent and that this intentionality had an effect on the children and their responses:

We're often listening to what the children are saying - but I think I was listening more with intent. Like asking specific questions to pull out what it is that they were thinking about - what they were doing - or what their problems may be. And not so much about the activity itself - it's more about how they prepared that activity. And the children feel that it is more reflective - that they actually have to think a little bit more and not just say...'Well this is my work.' Or 'I did this with blocks.' So, I find that they may be a little more detailed in their description. Also, they would kind of slow down because they see me writing real fast. Or they'll say, "Did you write that down?" (ECE 3, Third ECE Interview)

In response to the question “How has your practice changed as a result of this experience?” all five of the remaining ECE participants responded that their practice has changed in various ways. Four of the five (80%) said that this process has made them more reflective in their practice. The remaining respondent said that the process has “added something more to my practice – something on top of what we do” (ECE 6, Fifth ECE Interview). ECE 5, who had expressed doubts about the process throughout the study, remarked that:

I am giving them more opportunities to co-create the learning environment. I am also relying on non-verbal communication more -- nods, smiles -- as a way of giving permission when children just look at me to ask a question (for example, permission to leave the classroom). In the moment, I am aware how much shared knowledge we have and how well these interactions replace the usual "scripts". It also shows the strong
emotional connection and trust that we have in each other. It's hard to document those things but they are beautiful and I am aware of them. (ECE 5, Fifth ECE Interview)

ECE 7 described how she is thinking differently about her role as a documenter. She described that her previous documentation efforts were designed for a parent audience, showcasing an activity that she, as an educator, had designed for the children:

But now I'm seeing them and what they are doing themselves. I was doing (adult-led) things before with art or something but now it's in more natural settings. Now I don't know at all (what they are thinking) and so I’m thinking about what they're doing at the moment- I’m asking them 'why' and 'what are we doing here?' And as far as that moment goes, I'm thinking, 'this is very interesting I wonder what they're thinking - what theories are they testing? (ECE 7, Fifth ECE Interview).

When asked if they would continue with co-construction as part of their regular practice, the five remaining participants answered in the affirmative. ECE 1 felt that because this approach expanded her thinking and understanding of the children she works with, she will continue. She remarked that this approach indicated to her which of the children she doesn’t ordinarily talk with, which makes her more aware of the importance of interacting in an authentic way with all of the children in her playroom. ECE 3 expressed a desire to continue but is thinking of more ways to keep the children involved in the process. She described how she intends, in future sessions, to give the children hands-on activities to do as part of the co-construction process, e.g., scissors, markers, and paper so that they can actually construct the documentation along with her. Despite her ongoing misgivings, ECE 5 said that she would absolutely continue. “I will take into consideration all the reflections from this study and try to do co-construction in a natural, organic way that fits our philosophy, our environment and its
pace, the children's developmental needs, and the teacher's timeframes” (ECE 5, Fifth ECE Interview). ECE 6 liked the way that photos were used as a catalyst for discussion and wished to continue this in her practice. ECE 7 remarked that she wanted to continue with co-construction and, as director of the centre, wanted the rest of the staff to follow this model as well. She provided an example of co-construction that one of her summer students completed (Figure 19) after observing the practice being used by ECE 7 and her teaching colleague, ECE 1, as evidence of how the co-construction process was already being adopted by other staff at the centre.

**Summer Student’s co-construction**

What's going on in this picture?
I was trying to build a jet. That little jet right there.
Did you finish it?
Yep. And that’s Henry. He’s building this one. I’m wearing Batman and he’s wearing Paw Patrol…

**Summer Student’s co-construction**

Who's in this picture?
That’s Cooper and me.
What are you guys doing?
Lego! I got Lego at my house!
What do you do with it?
I build with it. Cooper’s playing with all of that stuff and I’m playing with that one.
What were you building?
Little guys – and they can get you!
Summary

Data from the six-month study period were examined using a thematic analysis approach within a social constructivist research paradigm. This analysis resulted in the identification of three major themes within which the research findings are presented. These themes are 1) Value and Validation; 2) Reflections and Relationships; and 3) Processes and Practicalities.

The theme of Value and Validation speaks to how the participants saw pedagogical documentation as adding value to their programs and relationships and how the practice of creating and displaying documentation helps to validate the work and the learning that occurs in an early learning setting. The theme of Reflection and Relationships describes the factors that influence how ECE participants incorporated reflective practice and reflective dialogue into their interactions with children and colleagues during the research study. This theme examines how this reflection influenced the relationships between educators and children, educators and parents, and educators and their colleagues. Finally, the theme of Processes and Practicalities addresses the many factors and practical considerations relating to the co-construction process.
that emerged throughout the time that the educators, children, and parents were involved in the co-construction of pedagogical documentation.

At the conclusion of the study, the participants (both ECEs and parents) provided solid and practical advice on what factors influence the practice of co-constructed pedagogical documentation in early learning settings. This advice included suggestions on when and where documentation should be created; how it should be displayed; and best ways to engage children in reflective dialogue.

In summary, regarding my main research question which asks what are the key factors that contribute to and result from the effective co-construction of pedagogical documentation by educators and children in play-based early learning settings, the results note that the factors that contribute to the effectiveness of pedagogical documentation range from the practical aspects of co-construction such as the time, the setting, and the materials, to more intricate elements such as level of children’s interest, length of time between the activity and the reflection, and the types of reflective dialogue prompts used with the children. The age of the child participating in the co-constructive process as well as the comfort level of the educator in engaging in a more open, unpredictable process also appeared to influence the co-construction process.

The factors that resulted from the co-construction process appeared to be an increased awareness on the part of educators and parents of the ability of children to be reflective and detailed in their recollection of events. Educators reported a desire to take more time to engage in authentic conversations with children and parents reported an increased awareness of what their children learned through play-based activities. Educators appeared to further their understanding of the importance of including the child’s voice in their documentation and
planning in ways that were authentic and meaningful, recognizing that their own perspectives
(the adult perspective) was not always accurate in determining children’s views and experiences.

Regarding the sub-questions, the factors that contributed to educators’ understanding of
children’s developmental strengths, needs, and interests through the co-construction of
pedagogical documentation appeared to be a willingness to listen carefully to the children’s
perspectives about their experiences during times when the child was ready and able to focus on
the co-construction process. As well, the educators’ ability to recognize that the process of
reflection and relationship building that results from the co-construction process is as important,
if not more important than the final documentation product, allowed the educator to view
children’s abilities to engage in sustained shared thinking, create storylines, and share a pretend
narrative in ways that they may not have recognized prior to the study.

Factors that contributed to educators’ abilities to be reflective and intentional in their
practice seemed to relate to the practicalities of time, setting, as well as the support of
administration and colleagues. Those ECE participants who had a teaching partner who was
involved in the co-construction process reported higher levels of comfort with the process of
reflection. Although all participating ECEs had planning time built into their work week still
expressed a need for more time to reflect with children and with their colleagues. Regarding
intentionality in practice, all of the ECE participants reported having intentional conversations
with children as a result of the co-construction process, and that these conversations led to more
intentional planning on their part – planning based on what the children had suggested or
described during their reflective dialogues with educators.

One of the primary factors that appeared to influence children’s level of metacognition
was not so much the age of the child but whether the child was in a group with multi-age peers
(3-5 years old) rather than in a group of same-age peers (three-year-olds). This study dealt with four separate classrooms in three research sites, therefore, the age range studied was limited, however, the ECE participant who worked with children who were in a younger preschool classroom (threes and early fours) reported that the children with whom she worked were not able to recall events accurately or showed little interest in doing so as compared to educators who worked in multi-aged classrooms (3-5 year olds) who reported that even the youngest children in their group were able to recall events with accuracy and detail. This finding may be related to how and when these reflective dialogues occurred, indicating that the setting, the timing, and the approach to the co-construction process can influence the level of metacognitive behaviour exhibited by children during the co-construction of pedagogical documentation.

The main factor that influenced parents’ understanding and engagement in their child’s play-based learning, within the context of co-constructed pedagogical documentation, was the parents’ ability to access this documentation. The majority of parents felt that documentation was valuable as it helped them to understand how their children learned through play, however, most parents reported not having enough time to view displays or were unaware of when and if displays were changed or newly presented. When they were able to access it, the parents felt that the images captured in the documentation and the text or interpretation of the event were helpful in their understanding of their children’s play activities. Educators reported that they provided parents with several ways to engage in the program, and were hopeful that co-constructed pedagogical documentation would provide a way to engage parents more directly in their child’s learning. Several ECE participants reported that children were drawing parents in to see examples of their co-constructed documentation which had the desired effect of engaging parents more directly in their child’s learning and activities.
Chapter 6 – Discussion

This research study examined the key factors that contribute to and result from the co-construction of pedagogical documentation by educators and children in play-based early learning settings. The specific sub-questions that were posed looked at various factors within the context of co-constructed documentation, namely, factors that contributed to educators’ understanding of child development, factors that contributed to reflective and intentional practice, factors that influenced children’s metacognitive behaviours, and factors related to parents’ understanding and engagement in their child’s play-based learning.

The key findings of this study were that the process of co-construction of pedagogical documentation was influenced by factors both internal and external to educators, parents, and children. As well, participation in this process influenced the practice and beliefs of the ECE participants, in terms of their views of children’s capacity to reflect, their role in the documentation process, their own ability to be reflective and their willingness to incorporate this type of co-constructive process into their regular practice. All participants indicated that they will continue with some type of co-constructive documentation process as part of their regular practice. This chapter provides an analysis and synthesis of these key findings, along with a discussion of the implications of this research, including recommendations for implementation of co-constructed pedagogical documentation in early childhood learning environments as well as considerations for future research.

As indicated in the previous chapter, three distinct themes were generated through a process of thematic analysis of the data; Value and Validation; Reflection and Relationships; and Process and Practicalities. These themes respond to the main research question and provide a structure and a framework to enable the organization and discussion of the findings. The themes
illustrate the various depths and layers that are inherent to the process of co-constructing pedagogical documentation.

**Value and Validation**

The theme of ‘Value and Validation’ underscores the important role that documentation plays in the identity of the early childhood educator. Documentation is a very public display of one’s practice. It is visible to all who have a stake or an interest in how well an educator is translating her knowledge, skills, and abilities into her practice. What she chooses to document, her interpretation of the documented event, how well the documentation is displayed from both an aesthetic and professional perspective all comes together to visibly attest to the individual’s level of performance in her role as early childhood educator. The ECE participants spoke enthusiastically and freely at the beginning of the study of how pedagogical documentation helped to validate their practice and how it placed value on the work that they did as well as placing value on the work of the children. They spoke of how it helped parents see the value in their work and how it helped parents see the value in play-based learning.

This theme of value and validation continued throughout the study, with both ECE and parents maintaining their views on how pedagogical documentation illustrates the value of what is happening in the playroom. Children in the focus group also indicated that there was value in the co-constructed process because it “helps us learn” (E, 4 yrs. 8 mos.) and “because we have to listen” (C, 3 yrs. 11 mos.). However, perhaps because of this emphasis on a visible end product of the documentation process, the appearance of the co-constructed documentation became problematic for several of the ECE participants. Because the educators were ‘sharing the power’ with the children in the creation of the final product, the actual documentation display did not meet the same self-imposed standards of ‘professionalism’ that the educators may have set for
themselves earlier. The interpretations of the children’s experiences were not as sophisticated as those included in their traditional form of documentation because they were constructed by the children and adults together and written for a child audience rather than an adult one. The quality of the text was not as polished because the educator was writing in the moment with the child, therefore the text was hand-written and not typed as it would have been ordinarily.

Throughout the process, I talked with the educators at our monthly interview sessions about how the documentation is created with the children and for the children, meaning that the children are the main audience for the documentation. This meant that the educators’ roles in the creation of documentation might be quite different than they were prior to the study. Instead of adding their own interpretation of the event – looking at the experience through an adult lens which often contained references to developmental outcomes – the adult’s role in this case was more of an interviewer and a scribe to the child’s interpretation rather than as commentators or interpreters for the child’s experience. This role was not difficult for most of the ECE participants. Some expressed relief at not having to assign developmental significance to every documented event, “Sometimes I feel like I don't know what is important...I don't know what I should put in and what I shouldn't put in” (ECE 6, Initial ECE Interview). Others stated that this new role helped them to better view situations through a child’s eyes, validating that they were not misinterpreting the child’s interests or insights and making the documentation more relevant to and respectful of the children, “It's going to take me to a place where it is even more respectful of the children and more aware of the children – this will be incredibly comfortable” (ECE 4, Initial ECE Interview). The problem, however, was with the final product. In their role as scribe, the educators expressed a dissatisfaction and even embarrassment with the quality of their penmanship and spelling and were reluctant to display the co-constructed documentation.
Ironically, as early childhood professionals, we emphasize the importance of process over product in our work with children, however, some of these ECEs had difficulty following this same basic tenet with their own work. The question can be asked as to whether this was a function of personal insecurity on the part of individual educators or was it a larger reflection on the lack of professional recognition of the sector, which has been identified as one of the most frequently identified human resource issues impacting ECE employers and employees (Child Care Human Resources Sector Council, 2008). It is significant to note that the parents’ expectations of documentation did not appear to hold ECEs to these same exacting standards. They spoke of the importance of documenting ‘ordinary moments’, such as playing with playdough or interacting with friends. They were not looking so much for the quality of the display or for developmental insights but rather for glimpses into what one parent called ‘the mystery of my child’s day’.

The ECE participants and I discussed various remedies to overcoming this discomfort and insecurity with displaying co-constructed documentation. One of the options discussed was to indicate on the display itself that it was co-constructed by the adult and the child, which could manage expectations of parents and administrators when viewing what might look like a hastily constructed display. The use of PowerPoint was suggested as an easy way to include a photo and a few lines of typed text. This could be done ‘on the floor’ with the children if the right technology were available and would result in a more professional-looking display.

In her final interview, one ECE participant described how she will begin to involve the children in the actual construction of the display on a more practical level, asking the child to cut the photos out and glue them on the display, adding their own writing and sketches to the final product. This approach would add considerable value to the process by casting children in a role
where they have agency and authentic input into the co-construction of the final product. It could help to ease the discomfort of those educators who are concerned with the appearance of the display by making their own handwriting blend with the final co-constructed product, illustrating the true co-created nature of the documentation.

Although by the conclusion of the study, the ECE participants stated that new adopters of this practice should focus on the process rather than the product, the emphasis that was placed on how the final display validates the work of the educator throughout the study raises some important questions, the primary one being, is validation of practice one of the main motivators behind the creation of documentation displays? If this is so, then what other ways can educators find validation in their work? Where does this leave children in the process? Can a co-constructed documentation display look ‘messy’ but validate practice at the same time? What mindsets need to change for this to happen? Elfström Pettersson (2015a) discusses what happens when the product of documentation becomes the objective of the documentation process:

(If) the purpose of documentation was to produce a paper that could be displayed on the wall or put into a binder (then)…children have to be controlled, otherwise the products of documentation might become something other than what was intended or perhaps they may not be made at all. This compels teachers to control the children, which is problematic from a participation perspective. (p. 245).

Perhaps a shift in outlook about the capabilities of children could result in an increased level of comfort and improved confidence when involving the child as a true partner in creation of documentation, understanding that the real value of pedagogical documentation lies within the process and not just the product. MacNaughton’s and Smith’s (2008) discussion of power dynamics inherent in adult-child relationships describes how our ways of consulting with
children are shaped by our attitudes of ourselves as adults. “If we see the adult as more knowing and capable than a child, then we as adults will consult a child quite differently than someone we see as more knowing and capable than our self” (p. 32). Throughout the research study, the ECE participants noted their surprise on several occasions at how adept the children were at remembering and reflecting on their experiences. This heightened recognition of children’s abilities has the power to disrupt the current adult-child dynamic, creating a space for children’s voices to be included in increasingly meaningful ways and eventually leading to a truly collaborative documentation process - one that is validating for both the adult and the child.

Reflection and Relationships

All seven ECE participants noted that their participation in the research study positively influenced their ability to be reflective with their colleagues and with the children. As well, the ECE participants noted that relationships with parents and with children were strengthened through the co-construction process. Through their attempts at co-construction, the ECEs appeared to be connecting in new ways with the children, recognizing the importance of slowing down, listening, and looking for opportunities to engage, with varying degrees of success. Certainly, the opportunity to discuss events with children, using photos as a catalyst for discussion, led to rich interactions that might not have taken place otherwise.

These rich discussions did not always happen easily. ECE 1 described how she, at times, felt guilty about taking the time to sit and reflect with the children. Other participants noted how difficult it was to find the time to have individual discussions with children. This lack of time, or even lack of self-imposed ‘permission’ to take the time to engage one-on-one with children speaks to the many responsibilities that an educator has on a daily basis but also the priorities that the educators or administration set for themselves or their staff. It speaks to how an educator
defines their role in the classroom; their role in the adult-child relationship; and the value that they place on the inclusion of children’s voices and their right to be heard.

The participants in this research study are not alone in this struggle to create time and space for meaningful conversations with children. Saballa, MacNaughton and Smith (2008) noted that “Children’s lives in early childhood centres can become dominated by adult directions, expectations, and thoughts, as children spend between 25 percent and 50 percent of their time listening to staff” (p.66). Massey (2004) indicates that, “In some settings, over half of (preschool) teacher verbalizations center around providing children assistance in obtaining items, managing behaviour, supporting children in peer relationships, praising children for appropriate behaviour, and providing instructions” (Dickinson, DeTemple, Hirschler, & Smith, 1992; Dickinson & Smith, 1991; Kontos, 1999 as cited in Massey, 2004, p. 228). Therefore, “children have few opportunities to elaborate on teachers’ questions and statements” (Massey, 2004, p. 228).

When asked to ‘pretend they were teachers’ in the child focus group, one child responded to the question “What would you ask the children in the photo?” with the seemingly comical quip of “I would tell them to clean up their mess!” (Em, 3 yrs. 10 mos). The other children in the group soon joined in the chorus of “I would tell them to clean up their mess!” in response to the same question. Although the children were smiling and giggling when they said this, the ECE participant in the group stated, “This is very revealing” (ECE 7, Child Focus Group). Was the repetition of this phrase merely a function of gathering young children in a focus group or could this be the perception of how children see the role of the adult in the adult-child dynamic? Does it reflect the notion of teacher as holding the power and authority? It can be a difficult image to see when a child holds up a mirror in this way, but one that is worth viewing nonetheless.
Hohti and Karlsson (2014) compared the struggle between the voices of children and the voices of adults where children’s voices are “not regarded as voices of knowing” (p. 558) and adult’s voices are described as “controlling” and “institutional” and “the voice of power” (p. 558). Co-constructing documentation is one possible way that children’s voices can be recognized as ‘voices of knowing’. There are many other opportunities throughout the day for adults to demonstrate their attitudes and beliefs regarding children’s right to be heard as well. Redding-Jones, Bae, and Winger (2008) emphasized that “No matter what approach is chosen to make space for children’s voices, what is done demands competence and high ethical standards from the person responsible: the adult” (p. 53). As a means to seek and receive children’s input in meaningful ways, educators must take responsibility for creating a setting conducive to supporting connections between and among children and adults in an early learning setting (Hohti & Karlsson, 2014) and “consider our position of power when we listen to children” (Redding-Jones, et al., 2008, p. 53).

Several participants described how the co-construction process motivated them to continue to look for time and opportunities for one-on-one reflective discussions with children about events and ideas that matter to them. These types of meaningful connections, where “children have control over their own narratives” (Hohti & Karlsson, 2014, p. 550) can lead to what Massey (2004) describes as ‘cognitively challenging conversations’ (p. 227) where children’s oral language acquisition and emerging literacy skills are developed and supported (Massey, 2004). Gramling (2015) distinguishes between what he calls “instructional mode” of conversing with children as compared to “communication mode” which provides a richer and more authentic language experience for young children. Colliver and Fleer (2016) describe learning as a “process of participation rather than acquisition” (p. 1565) which emphasizes the
need for children to be active participants in the conversation if they are to benefit from the exchange. Siraj (Siraj-Blatchford, 2010) refers to this type of genuine, active dialogue as sustained shared thinking which she describes as occurring infrequently but, in those settings when it does occur, it positively influences children’s level of academic achievement. Carr and Lee (2012) suggest that “Genuine dialogue requires the deliberate creation of opportunity for initiative-sharing and collaboration” (p. 5). The commitment on the part of the ECE participants to seek more opportunities to include children’s voices and perspectives signifies a recognition on their part of the need to strengthen and support respectful and collaborative adult-child relationships within each of their programs.

When considering the adult’s position of power both as listeners and as interviewers, the importance of accepting children’s unique viewpoint and perspective is highlighted. To illustrate this point, three of the ECE participants remarked on how children sometimes change the narrative when reflecting on their experiences, adding or subtracting details of the actual event. The participants expressed a certain level of discomfort in this ‘misremembering’, wondering if these ‘incorrect’ details signified an inability of the children to use reflection as a metacognitive behaviour or if it was a deliberate attempt by the child to embellish the story either for the teacher’s benefit “because they think that’s what we want to hear” (ECE 7, Third ECE Interview) or to make the details more interesting. In these cases, it seems that ‘reflection’ is being defined by the ECE participants as being synonymous with ‘recollection’ and that children’s instances of changing the narrative were viewed as examples of deficits rather than strengths.

Hohti and Karlsson (2014) describe children’s narratives as blurring “the general assumptions about what is considered truth and what is fiction” (p. 558), stating that “fictitious characters and landscapes can function as stages for important processes of ‘real’, lived worlds”
Allowing children to take the lead in these reflective discussions, even if this lead role results in embellishments or imagined twists and turns can have a significant impact on the quality of the co-constructed experience for both adult and child. As Forman (2012) emphasizes “Photographs should be treated as a door to enter the world of possible events, not as a window that pictures a single time and place” (p. 257).

When we, as adults, ask a child to ‘tell me about this photo’, we are inviting a story and a personal narrative. If we censor this narrative by insisting on a factual account, we are asserting our authority over the child storyteller. We are the voice of power. A very specific message is being sent to the child, asking them to modify their narrative to meet our expectations. This does not recognize their voices as ‘voices of learning’ as described by Hohti and Karlsson (2014). If we move past the notion that reflection simply requires an accurate account of the event and if we recognize these reflective conversations as not only being typical of young children’s narrative but also as being opportunities to strengthen a culture of storytelling and reflection, then it is possible that both parties to the conversation, educators and children, will benefit more from the co-construction process. In this way, educators are supporting an atmosphere and culture of reflection where all entries in the discussion are welcomed and deemed as valuable.

Creating time and space for reflective relationships with colleagues and parents were factors that influenced and were influenced by the co-construction process. ECE participants emphasized the importance of taking time, and being provided with time, to reflect with their colleagues about their observations of and interactions with children and the subsequent creation of pedagogical documentation that arose from these observations and interactions. As Flanagan, Beach, and Varmuza (2013) reported, few early childhood educators are provided with paid planning time or time to reflect with their colleagues. This was confirmed by the participants
who unanimously stated that finding time to plan and discuss with colleagues was limited, despite the fact that all participants had an allotment of approximately one hour per week for planning. For comparison purposes, educators in the Reggio Emilia system are provided with two and a half hours per week of planning and reflection time (Rinaldi, 1994, p. 57). If, for budgetary, staffing or practical reasons, additional planning time cannot be provided to early childhood educators, does this mean that the ability to create quality documentation is jeopardized? Perhaps seeking ways to make the documentation process more collaborative, involving children in a tangible way through the provision of materials and a time and space to create with the educator, as suggested by ECE 3 in her final interview, some of the time and timing issues can be resolved, and the process and habit of documentation can be more easily incorporated into early learning settings.

Those participants who had a partner teacher involved in the research study (ECE 1 & 2; ECE 3 & 4) emphasized the importance of sharing ideas and reflections with each other. As it happened, both ECE 2 and 4 left the study at the mid-way mark, leaving ECE 3 to attempt co-construction on her own for the remainder of the study. ECE 1 gained a colleague (ECE 7) who joined the study at midpoint. Although it was an unfortunate turn of events, it provided ECE 3 with the opportunity to compare the process of co-constructing with a partner who was involved in the same type of process and being the only educator in the room who was co-constructing documentation with children. She stated unequivocally that the process worked best when done in an environment where both educators were using this process. Partner teachers, in these instances, acted as co-learners, which was not only beneficial to the educators but to the children as well, as they heard and saw their educators explore this new process together, creating an atmosphere of reflection and dialogue within the classroom.
There are many ways to build relationships between families and educators in early learning settings and, according to the data collected in this research study, the parents at all three research sites spoke passionately about their positive relationships with the educators. This indicates that educators at the three research sites have demonstrated an ability to build positive relationships with parents and families prior to their involvement in the study. An overwhelming majority of parents stated that they have a strong understanding of how their child learns through play, backed up by many examples from the interviews and questionnaires that indicate this understanding. Because most parent participants noted that this understanding had increased by the end of the study, the evidence suggests that the co-construction of pedagogical documentation influenced this awareness. The main factor that appears to influence this increased awareness is how the co-constructed documentation acts as a catalyst for discussion between educators and parents as well as between parents and children.

At the end of the six-month study period, some parents noted a difference in the amount and type of documentation being displayed, while others either did not have the time to notice when new documentation was displayed, or were not aware of these new displays. Parents who were able to see the displays expressed their enjoyment at sharing documentation with their children and looked forward to new documentation being produced. Recognizing that parents are enthusiastic consumers of co-constructed documentation and that this documentation helps them to better understand how their child learns through play-based learning places an emphasis on the need to make this documentation more accessible to parents. Various suggestions were made by parents about how this can be done, but the simplest message to educators from parents was to just let them know when new documentation was being displayed and they would make the time to see it.
Parental involvement in the co-construction process during the research study period was primarily relegated to that of consumer of the documentation, rather than contributor. During the study, the ECE participants did not directly incorporate the voice of parents in their documentation although they did share parents’ comments with me, as researcher, during our monthly interview sessions. As the educators and parents become more familiar with the co-construction process, and depending on parents’ ability and time to be involved, educators could consider offering the possibility for parents to participate in the co-construction process directly, for example, creating a space and a place for parents to contribute to the documentation through their comments, their photographs, or their involvement in the program. This is similar to the learning story format described by Carr and Lee (2010) where comments from parents and other family members are included in children’s portfolios, with parents and family members, at times, contributing photographs or even learning stories that they have constructed at home. This has the potential to provide educators and families with even more opportunities to share insights with each other on children’s activities at home and at the early learning setting, which, in turn, could deepen trust and appreciation for the perspectives that each bring to the learning environment.

Processes and Practicalities

Throughout the research study, the definition of co-constructed pedagogical documentation and the description of the process was kept deliberately vague so that the ECE participants could investigate for themselves what this might look like. As a researcher, I had my own ideas of what might happen, but because the main aim of the research was to examine factors that both influence and are influenced by the process of adults and children co-constructing documentation, it would have been antithetical and, in some sense, arrogant, for me
as researcher to presume that I knew how this process should be conducted and what factors play a part in its success. We were all basically starting from scratch.

The ECE participants were familiar with the process of pedagogical documentation and practiced it to various degrees prior to the study. When provided with the provocation of ‘What if the documentation was created by the children, with the children, and for the children?’ the ECE participants moved forward into what was, for them, uncharted territory. Many factors were identified that both influenced the co-constructive process and were influenced by the process. Information about practical factors such as finding the right time, the right place, and the right words to facilitate reflective conversations were presented to me during my interviews with the ECE participants and through the questionnaires. More introspective factors that influenced the process such as attitude, approach, uncertainty, confidence, comfort, and beliefs emerged throughout the research study as well. Factors that were influenced by the co-construction process were identified as participants discussed how their practice changed as a result of their participation in the study. Factors such as intentionality in practice, beliefs about what their role was in the documentation process, and their thoughts about the participation and reflective capabilities of children surfaced through interviews, questionnaires, site visits and viewing samples of co-constructed documentation.

Pedagogical documentation serves many purposes. It is used as a form of assessment (Bowne, et al. 2010; Carr, 2001); as a means to demonstrate a respect for children’s work (Kline, 2008); as a means to inform parents about their child’s involvement in the program (Tarr, 2010); and as a way to allow children to revisit their own experiences (Katz, 2014). It comes in many forms. Stacey (2015) defines nine types of documentation including documentation panels, extraordinary moments, daily log, documentation developed with or by the children, individual
portfolios, electronic documentation, transcripts or recordings of conversations, learning stories, and the classroom as documentation. Co-constructed pedagogical documentation has the potential to serve many of these purposes but is not necessarily meant to replace the various types of documentation that educators already produce. However, by engaging in the practice of co-constructing, educators may begin (or continue) to consider not only how to create meaningful documentation but why they are creating it. For whom is it important? What purpose does it truly serve? If the child is featured only in the moment but not in the analysis, then where is the value for them? Whose interpretation is it and why is it important that the children’s perspective be included?

Prior to their participation in the study, the ECE participants often included children’s voices during the event that was being documented by adding children’s comments that were made while the children were engaged in the activity, for example ‘I’m making a snake. It’s really long’. The co-construction process added the dimension of time to this process. Children were invited to remember, revisit, and reflect on what they had done in the past, whether it was one day ago or one month ago. This added a layer of complexity to the narrative. It was not simply a recounting of the event but a deeper look into how the child felt about the experience, whether it stimulated further ideas, whether it rekindled fond memories, whether it sparked their imaginations in the retelling. It connected children to their experiences in a different way. In many cases, it changed the relationship that the children had with their work and with the educator who demonstrated such a deep interest in their work.

At the conclusion of the child focus group, which was held at the end of the research study, two child participants spent time explaining the intricacies of their documented artwork to the group. This piece of documentation had been completed at least one month prior to the focus
group. Once they were finished reviewing their work, two other participants exclaimed “I’m going to go make a picture of my dog!” and immediately started planning what materials they were going to need to create this picture. To me, this was a vivid illustration of the connection that all of the children had to the documented event and the immediate influence the impromptu reflection had on these children in particular.

The attitude of the educator is key to the success or the adoption of a co-constructed process. To engage in co-construction requires an openness to wonder, a curiosity about and an appreciation for children’s perspectives. It demands an appreciation of the journey with its many twists and turns. It is about being comfortable with a process in which the adult is not in complete control. It is about sharing the power. It requires patience, confidence, and a willingness to showcase attempts at the process, recognizing that the product may not turn out as expected. It requires a respect for a child’s right to participate and a child’s right to not participate, recognizing that children express dissent in a myriad of ways. “Just like adults, children have a right to privacy. Expressing dissent may well be an exercise of that right to privacy” (Dockett & Perry, p. 253). It means looking for small opportunities and “ordinary moments” (Tarr, 2010), not only to document but also to discuss and reflect upon. These moments create a climate where children recognize that their voices have power – they are “voices of knowing” (Hohti & Karlsson, 2014).

This attitude extends towards parents and families as well. Educators must recognize and appreciate parents’ desire to know and their limitations in asking. Parents are busy, operating under tight time schedules which leave little room for chatting in the hallway (Perlman & Fletcher, 2012). Parents have expressed, however, their need and appreciation for the small moments in their child’s everyday life away from them in the “mystery that is our child’s lives”
(Parent 2). There is a need for an organized and consistent way to inform parents and families of newly constructed documentation displays and a commitment to provide each child with an opportunity, at some point, to participate in authentic discussions about their work as part of the co-construction process.

One of the motivating factors behind this research was to make the process of documenting more accessible and achievable for early childhood educators, recognizing their tight time constraints and their multitude of duties as front-line practitioners. In my career in early childhood education, I often heard ECEs state that they had difficulty finding the time to document children’s experiences in meaningful ways. Administrators of early learning settings expressed concern about the time it takes to create documentation. Often, a basket or pile of photographs would languish in an office, waiting to be used in a documentation panel, but often being relegated to a file folder labelled “miscellaneous photos”. By inviting educators to create documentation with children, as part of their ‘on-the-floor’ activities, I thought that the co-construction process would make pedagogical documentation more doable. This was not necessarily the case. Although each of the ECE participants saw value in the process, with the majority of participants saying that they will continue to include children in the documentation process, all of the participants described time as continuing to be a challenge.

For the most part, the ECE participants did not involve the children in the actual creation of the physical documentation, i.e., the cutting, pasting, and arranging photos on a display panel, even though the involvement of children in the process (‘by’ the children and ‘with’ the children) was emphasized from the start of the study. This meant that the production was left to the educator who would complete it during a break or after hours. There were some months that the ECE participants did not have time to create even one piece of co-constructed documentation.
This may evolve as participants continue with the co-construction process. It is significant to note that ECE 3 made a specific reference to how she will engage the children in hands-on concrete ways as part of the co-constructive process as she continues with this practice. Four of the final five participants stated that their process of documenting children’s learning will change as a result of this study.

Limitations

This study had limitations that could affect the findings and the conclusions of the research. One limitation of this study was the length of time required for the study (six months) in terms of ensuring consistent participation by the ECE participants. The study began with six ECE participants selected through a purposeful sampling method. The field of early childhood education is well known for its high staff turnover rate (Flanagan, Beach & Varmuza, 2013) and high turnover rate did affect this study, with two ECE participants leaving mid-way through as a result of a change in job status (the two ECEs left their current centres to take positions in other centres). To somewhat compensate for the loss of two participants, one new ECE participant was invited to join the study midway through. Data collected from the two educators who left the study midway were included in the research study, as were the data from the educator who joined at mid-point. Another limitation related to the demographics of the ECE participants which were very similar (race, gender, socioeconomic status) which provide a particular lens to the findings. As well, the wide variance of experience of the ECE participants is among the limitations as is the sample size itself. This sample size could make it difficult to derive generalizations for a wider population, however, there are suggested practices and approaches related to the co-construction of pedagogical documentation that could be explored further as a result of this research study.
Another possible limitation to this study was the emphasis on one specific age group of children, that is children ages 3-5, and on one type of early learning setting - a regulated child care centre. Future research could be done with either younger or older age groups to see if the research findings hold true in situations involving children of various ages and developmental levels. Examining whether findings are similar with different populations of children, including children with special cognitive, communication or developmental needs could be useful and relevant. As well, research could be done in other types of early learning settings, e.g., kindergarten classrooms, regulated family child care homes or family resource centres to see if the possible benefits of co-construction of pedagogical documentation can be applied to other early learning settings.

This was a qualitative research study which relied primarily on data from personal interviews and questionnaires. I recognized that my responsibility as researcher and interviewer was to be objective when gathering data, however, I was aware that the interpretation of the data was subject to my own personal biases as someone who is connected to the field of early childhood education. To minimize this subjectivity, I requested a member check of the transcriptions from all interview participants so that the accuracy of the data could be validated. As well, I collected data from three different sources (ECE participants, parent participants, and child participants) and using five different methods (interviews, questionnaires, focus group, document sampling and site visits) to corroborate findings. Assumptions were made that the participants’ responses to the interview questions and the questionnaires were true and reflective of their experiences throughout the research study.

Attempting to generalize findings from this research study to other situations would be difficult due to the design of the research and the nature of the subjects. This design-based
research study, situated within a social constructivist research paradigm has findings that are specific to these sites and participants. Generalizability of these findings was not one of the purposes or goals of this study.

**Considerations for Future Research**

This study provides a small but significant look at the potential for co-constructed pedagogical documentation in early learning settings. Educators were asked to try a new way of creating documentation, with very view guidelines as to how this could and should be done. As a result, the research study provides me with just as many, if not more questions as it does answers. This means that further examination of this type of documentation is an area rich for discovery.

As early learning frameworks are being implemented across Canada, educators are being supported by guidelines that examine adult-child interactions through a sociocultural lens, acknowledging the important role of relationships and community in children’s learning and development. Co-constructed pedagogical documentation has, as its goal, the inclusion of children’s voices as an integral part of the analysis and interpretation of their own learning experiences, meaning that it fits within this sociocultural paradigm. So, within this context, areas of future research could include:

**Development of a protocol.** Using the findings from this research study, a protocol for the co-construction of pedagogical documentation could be developed that would include recommendations for times, settings, materials, and support required for co-construction. This protocol could be piloted within a number of early learning settings, with the findings from the pilot culminating in a guide for practitioners, administrators, and faculty at post-secondary early childhood education programs.
An examination of parental involvement and access. Recognizing that parents value pedagogical documentation yet express an inability to access documentation due to time and scheduling constraints, and recognizing that the inclusion of parents’ voices in documentation benefits children, parents, and the program, research could be conducted to determine how best to involve parents in accessing and/or participating in the co-construction of pedagogical documentation.

Pre-service education in early childhood education. Two of the seven ECE participants noted that they learned about pedagogical documentation in their preservice training, and, interestingly, these two participants appeared to struggle most with the co-construction process. Research could be done examining how information about pedagogical documentation is being delivered in post-secondary programs, taking a closer look at how the purposes, expectations, and methods of documentation are presented, and the implications this may have for graduates coming into the early childhood education sector. This could be done through a cross-jurisdictional scan and accompanying survey of ECE faculty at post-secondary institutions on current practices and understandings of pedagogical documentation within the context of pre-service training.

Co-construction of pedagogical documentation in different settings. This study focused on preschool-aged children in a regulated child care setting. Examining the process of co-constructed pedagogical documentation with different ages may provide insight into how the developmental or chronological age of children affects their ability and interest in participating in the process of co-construction. Exploring the process in different settings such as a mixed age group in a family child care home or a primary grade in a school setting could yield results that may be applicable to a wider range of early learning settings.
The relationship between pedagogical documentation and professional recognition. ECE participants articulated the value of pedagogical documentation in validating their work and the work of the children in a play-based setting. This validation was seen to be somewhat jeopardized when the final display, co-constructed by educators and children, did not match the standards set by the individual educators for their own work. This brings to bear some important questions about how early childhood education is valued and recognized. Is visual evidence required to validate the work of educators? If so, then what implications does this have for including children’s voices in authentic and relevant ways in program planning and in pedagogical documentation?

Recommendations

According to the findings of this research study, the practice of co-constructed pedagogical documentation positively influenced the reflective and intentional practice of educators and provided them with a means to view children as capable of the metacognitive behaviours of recalling and reflecting on events. All ECE participants indicated that they saw value in the practice and stated that they would incorporate elements of co-constructed pedagogical documentation as they move forward with their practice. Notwithstanding the limitations of the study, I offer these recommendations for practitioners, administrators and post-secondary institutions for consideration:

For ECEs.

1. Consider incorporating co-construction documentation as one type of pedagogical documentation used in an early learning setting.

Co-constructed documentation helps to create a climate of reflection and collaboration among adults and children and provides unique insights into children’s
activities and their thoughts on these activities. This type of documentation serves a specific purpose that is different from documentation that is written from an adult perspective and for an adult audience. Both types of documentation are valuable. These two types of documentation can work in concert, providing educators, parents, administrators, and children with different perspectives on the learning that happens in a play-based setting. The advice from the ECE participants in the study is to ‘just start’ but in ways that are manageable and achievable. This may mean setting a goal of one piece of co-constructed documentation per month per educator to get a feel for the process.

2. **Work collaboratively with colleagues on the co-construction of documentation.**

Participants indicated that working with a colleague on the co-construction of documentation made the process easier and more meaningful and this is especially true when both partners in an ECE team within a classroom are adopting a co-construction approach. Participants described how they could capitalize on each other’s strengths when working on co-construction together, e.g., the photography skills of one and the documentation skills of the other. As well, when both partners adopt the approach, the parents, children, and educators can work together to create a climate of reflection and authentic conversation based on the lived experiences of the children in the classroom.

3. **Involve the children in the process of co-construction in tangible ways**

   Engaging children in reflective conversation is one way to involve children in co-construction of documentation, however, their involvement can be even more meaningful if they are involved in creating the final display in ways that are more hands-on and concrete to them. Providing them with opportunities to take and select photos; arrange the selected photos on a display; be involved in the creation of the text that results from the reflective
conversation (using printing materials or a computer); and add their own sketches or artifacts to the display will allow them to claim ownership of the final product in a tangible way.

4. **Consider small groups created for the specific purpose of co-construction which include children who are participating voluntarily and who are interested in the process of co-construction as well as the event being documented.**

   Small groups can be an effective and efficient way to co-construct documentation under certain conditions. Specifically, the children must self-select to be in the small group based on their interest in the process or their interest in the event being documented. The dialogue, reflection, and collaboration that occur in small group discussions has the potential to significantly add to the co-construction process. As well, this process would incorporate the co-construction process into the regular routine of the day, rather than requiring the educator to grab snippets of the day to engage children in the reflective process. As an added benefit, co-constructing during small group times may allow ECEs the time needed to interact with children in ways that do not interfere with their play while at the same time providing the educators with time ‘on-the-floor’ to create documentation displays.

5. **Develop a protocol to engage parents in the process of documentation**

   Parental engagement in the documentation process can be considered as a continuum with parents actively co-constructing documentation with children and educators at one end and parents viewing the documentation displays at the other. Protocols can be developed within early learning settings to engage parents along this continuum at whatever level the parents wish to be or are able to be involved. The findings from this study support previous research that states that parents have very little time to interact with educators during drop off and pick up times. However, parents in this study indicated that they would make the time to look at documentation displays if they were made aware of the fact that a new display was
posted. As a beginning to step to facilitate engagement, it is recommended that ECEs or administrators develop a simple protocol, e.g., an email sent directly to parents, to let them know that a new documentation display has been posted and where it is located.

**For administrators.**

1. *Provide time and support for reflection, co-construction, and completion of pedagogical documentation.*

   Time was cited by all participants as a challenge to engaging in the co-construction process and completing the documentation display. It is recommended that administrators and educators engage in a dialogue about what is realistic in terms of time and supports needed for engaging in a co-constructed process.

2. *Create a climate conducive to innovation, reflection, support, and collaboration.*

   Engaging in innovative practice requires support at a leadership level. This support comes in the form of mentoring educators as they attempt new and innovative ways to support children’s learning and by modeling an attitude of curiosity, persistence, and reflection. In this way, an administrator of an early learning setting helps to create a climate of collaboration – one where everyone feels that they are ‘all in this together’. This requires patience and an atmosphere where mistakes are viewed as learning opportunities and where success is viewed as attempting the process and not solely by the quality of the results. Administrators support educators when they can create a climate where they, along with parents, educators and children, are considered co-learners when trying new approaches and making changes in practice.

**For post-secondary ECE programs.**

1. *Reflection, Intentionality, and Critical Thinking*
Provide time and space for ECE faculty to incorporate concepts and habits of reflection, intentionality, and critical thinking in post-secondary ECE programs, recognizing that post-secondary programs serve as incubators for emerging leaders in the ECE sector – leaders who not only practice these habits personally but act as models who support and encourage reflection, intentionality, and critical thinking among their colleagues and staff.

2. **Whats, whys, and hows of documentation**

   Emphasize not only methods for constructing pedagogical documentation but information as to why documentation is important, including discussions on who benefits from the process and product of documentation and why.

3. **Sharing the power**

   Incorporate theories and thinking about the adult:child power dynamic in early learning settings, creating space for students to examine the various ways that power can be shared among educators, families, and children in a play-based setting.

**Summary**

The purpose of this research study was to examine the experiences and perceptions of educators, parents, and children to see what key factors contribute to and result from the effective co-construction of pedagogical documentation in educators and children in play-based early learning settings. To look more deeply into this question, four sub-questions were posed. These questions required an examination of the factors that contributed to educators’ understanding of children’s developmental strengths, needs, and interests and educators’ ability to be reflective and intentional in their practice. The remaining two questions looked at the
factors that influenced children’s metacognition and parents’ understanding and engagement in their child’s play-based learning.

The research study found contributing factors to be related to practical aspects of documentation, such as time and timing, setting, materials, administrative support, technical and technological issues, and placement of documentation. Other factors that influenced the process were more intrinsic to the participants themselves – their comfort level with the unpredictability of the process, the value placed on the appearance of the end product and on the co-constructed process, the age of the children participating and the types of prompts used to initiate and sustain a reflective dialogue. The factors that were influenced by the co-constructive process focused on awareness and understanding on the part of the ECE participants of the value of authentic conversation with children and how this type of reflective dialogue can influence subsequent planning, documentation, attitudes, and practice.

The co-constructive process appeared to contribute to educators’ understanding of children’s developmental strengths, needs, and interests through a process of careful listening that happens when educators slow down and take the time to be truly ‘with’ the children. This process allowed educators to witness children’s abilities as story tellers, dreamers, and conversation partners. This, in turn, supported educators’ ability to be reflective and intentional in their practice as they became more purposeful in incorporating the expressed and observed interests of the children into their selection of activities and materials.

Educators remarked on children’s ability to recall and reflect on their own activities, through the process of co-construction and this type of metacognitive activity seemed to be influenced by the setting and whether or not the child was in the company of supportive peers who contributed to the co-construction process. This metacognitive activity was influenced, as
well, by educators who selected the right time and place for these reflective exchanges to occur. Selecting a relevant topic and being sensitive to the child’s level of interest also appeared to be influential in supporting children’s level of metacognition.

Parent and ECE participants agreed that pedagogical documentation was a valuable means for parents to see what their child was doing during the day and was key in helping parents decipher what their child learns through play. In this regard, the most influential factor contributing to parents’ understanding and engagement in their child’s play based learning, in relation to the co-construction process, was the ability of parents to access the documentation. Co-constructed documentation was seen to assist in this regard in that children were motivated to draw parents into the room to see the co-constructed displays. The onus is on educators to find effective ways to inform parents of when new documentation is posted, and parents, in turn, must find ways to access these displays despite their busy schedules.

**Concluding Remarks**

The findings of this research study are significant in that they express the complexity and value of the adult-child relationship in an early learning setting. Through an examination of the factors that influence and are influenced by the co-construction of pedagogical documentation, the challenges and benefits of including children’s voice in what is typically an adult-led process were highlighted. Several valuable suggestions for facilitating this process were discovered, while several issues continue to challenge me, as a researcher, as well as the participants in the study. The goal of this research was not to design a blueprint for the co-construction process or to elevate this method of documentation above all others. The goal was to take a closer look at the multiplicity of the factors involved so that a clearer picture of the process and its implications could be captured. Thanks to the dedication and perseverance of the participants of the study,
and specifically the ECE participants, this goal was achieved. Many questions remain but, by being involved in this research study, all of us are better able to broaden our vision on what it can look like when children, families and educators become partners in learning, exploring, and reflecting in an early learning environment.
Rain on my face

Do you remember what you were doing here?

“I was letting water go on my face. It was raining and there was water on the pot and on my face.”

“My eyes were closed.”

Why?

“Because I didn’t want water in my eyes.”

“Look! I have my skeleton hat on….that’s funny!”

Figure 20: Co-constructed Pedagogical Documentation (ECE 1, Month 3)
References


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Appendix A

The Hundred Languages of Children

by Loris Malaguzzi

No way. The hundred is there.

The child
is made of one hundred.
The child has
a hundred languages
a hundred hands
a hundred thoughts
a hundred ways of thinking
of playing, of speaking.

A hundred always a hundred
ways of listening
of marveling, of loving
a hundred joys
for singing and understanding
a hundred worlds
to discover
a hundred worlds
to invent
a hundred worlds
to dream.

The child has
a hundred languages
(and a hundred hundred hundred more)
but they steal ninety-nine.
The school and the culture
separate the head from the body.
They tell the child:
to think without hands
to do without head
to listen and not to speak
to understand without joy
to love and to marvel
only at Easter and at Christmas.
They tell the child:
to discover the world already there
and of the hundred
they steal ninety-nine.

They tell the child:
that work and play
reality and fantasy
science and imagination
sky and earth
reason and dream
are things
that do not belong together.

And thus, they tell the child
that the hundred is not there.
The child says:
No way. The hundred is there.

-Loris Malaguzzi (translated by Lella Gandini)
Founder of the Reggio Emilia Approach
Appendix B
Sample prompts for ECE to Child – Reflective dialogue

Sample prompts for Early Childhood Educator to use when co-constructing pedagogical documentation with children. Not all questions or comments need to be used during the co-construction process.

ECE to Child:

Let’s talk about these photos/this drawing/this construction. Tell me about what you/you and your friends did here.

What were you thinking about here (in this photo)?

What were the other guys (in this photo) doing? (If more than one child was involved)

Did you have any problems while you were doing this?

How did you figure things out? What did you do first?

How did you know what to do? (Did anyone tell you? Did you remember doing anything like this before?)

What do you want others (people, kids, parents) to know about this? How should we tell them? What should we say?

Does this (experience) remind you of anything that we’ve done here before? Can you tell me about that?

Does this (experience) give you any ideas on what you want to do next? Let’s write down your ideas.
ECE Questionnaires

EARLY CHILDHOOD EDUCATOR QUESTIONNAIRE - (INITIAL)

RESEARCH STUDY

Examining co-construction of pedagogical documentation
By children and educators in early learning environments

To ECEs: As part of the research study examining the co-construction of ‘pedagogical documentation’ (photos and descriptions of children’s play activities), you will be asked to complete three questionnaires – one at the beginning of the study, one at the middle (at the three-month mark) and one at the end of the study, approximately six months after the first questionnaire.

Please reply to all the questions and feel free to make your own comments at the end of the questionnaire. For multiple choice questions, please circle the letter that corresponds most closely with your answer.

1. How long have you worked in the field of early childhood education? ..................

2. How long have you worked at your current child care centre? .........................

3. What is your position in the centre? ...............................................................

4. How long have you worked in this position? ................................................

5. Do you work full time or part time? .................................................................

6. If part-time, how many hours per week? .........................................................

7. What is your level of classification?
..........................................................

8. Pedagogical documentation can be defined as the practice of combining of texts, photos, transcripts of conversations, audio tape, video, drawings and other media to make learning visible to children, teachers, parents and the public, for example, learning stories
or documentation display boards. Using this as the definition, how familiar are you with the concept of pedagogical documentation?

a. Unfamiliar with the concept
b. Have heard about it but have not seen it in practice
c. Familiar with the concept.
d. Practice the concept occasionally.
e. It is a regular part of my practice.

9. How have you learned about the practice of pedagogical documentation? Circle all that apply.
   a. Learned about it as part of my post-secondary training.
   b. Learned about it through workshops on the topic.
   c. Learned about it by watching others.
   d. Learned about it at my current place of employment.
   e. Did not learn about it.
   f. Other (please specify) .................................................................

10. How is pedagogical documentation displayed in your playroom? Circle all that apply
    a. Posters/Panel boards on the walls in the classroom
    b. Panel boards on hallways/common areas
    c. Individual child portfolios.
    d. As part of a parent newsletter (paper copy)
    e. As part of an electronic newsletter or email to parents
    f. It is not displayed in my classroom.
    g. Other.................................................................

11. Who is responsible for creating and displaying pedagogical documentation in your playroom? Circle all that apply.
    a. Me
    b. My ECE partner
    c. The director of the centre
    d. It is a collaborative process between myself and my ECE colleagues
    e. No one is designated to create pedagogical documentation
    f. Other:
       ...........................................................................................

12. How confident are you in producing and displaying pedagogical documentation?
    a. Not confident at all.
    b. Somewhat confident.
    c. Confident.
d. Very confident.

13. When do you create pedagogical documentation using photos, drawings, etc. that you have collected from the children? Circle all that apply.
   a. During my lunch break
   b. After work
   c. At home (on my own time)
   d. During a designated (paid) time during the day
   e. On the floor as I work with the children.
   f. Does not apply (I do not create pedagogical documentation)
   g. Other ………………………………………………………………………..

14. How have you involved children in the construction or creation of pedagogical documentation? (Please describe)

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

15. Which of the following best describe the philosophical focus and programming approach used in your playroom?
   a. Emergent Curriculum
   b. Reggio – Inspired Education
   c. Montessori
   d. High Scope
   e. Developmentally Appropriate Practice
   f. Theme-based
   g. Play-based
   h. Project Approach
   i. School Readiness
   j. Other (please specify) ……………………………………………………………..

16. How is program planning done in your playroom? Please describe the planning process.

______________________________________________________________________________
17. How are children’s ideas and interests incorporated into the planning process?

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

18. How are parents informed about activities that are happening in your playroom?

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

19. What opportunities are available to parents to become involved in the activities in your
playroom?

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

THANK YOU FOR YOUR TIME AND YOUR VALUABLE INPUT!
ECE SECOND QUESTIONNAIRE

RESEARCH STUDY

Examining co-construction of pedagogical documentation
By children and educators in early learning environments

EARLY CHILDHOOD EDUCATOR QUESTIONNAIRE

Name: ____________________________________________________________________________

Date: ____________________________________________________________________________

To ECEs: As you recall, as part of the research study examining the co-construction of ‘pedagogical documentation’ (photos and descriptions of children’s play activities), you are asked to complete three questionnaires – one at the beginning of the study, one at the middle (at the three-month mark) and one at the end of the study, approximately six months after the first questionnaire.

This questionnaire focuses on your experience in the research study to date and on the topic of co-constructed pedagogical documentation.

Please reply to all the questions and feel free to make your own comments at the end of the questionnaire.

For multiple choice questions, please circle the letter that corresponds most closely with your answer.

As we’ve discussed, co-constructed pedagogical documentation refers to documentation that is created by both you and the child or children. This documentation is an opportunity for both you and the children to be reflective when discussing a situation or event that you have documented with a photo or that is represented by a drawing or a work sample made by the child/children.

This type of documentation is written for the children, with the children, and by the children – meaning that the child is the main audience. The educator’s role is to facilitate conversation with
the child (using reflective dialogue prompts), reflect with the child and to act as a scribe, writing down the words of the children as they reflect on their experience.

With this definition in mind:

1. How would you describe your current comfort level in producing co-constructed pedagogical documentation with children?
   a. Not comfortable at all.
   b. Somewhat comfortable
   c. Comfortable.
   d. Very comfortable
   e. Other (please specify) ________________________________

2. When have you found is the best time of day to sit and chat with a particular child or children about a photo/photos and/or drawings/work samples that provide the basis for your co-constructed pedagogical documentation? Circle all that apply.
   a. In the early morning (after arrival)
   b. During snack time
   c. During large group time
   d. During a small group time
   e. During quiet time
   f. At the end of the day
   g. Does not apply (I do not create pedagogical documentation)
   h. Other .................................................................

3. How often have you been able to co-construct pedagogical documentation with children? Circle all that apply.
   a. Once a month
   b. Several times a month
   c. Once a week
   d. Several times a week
   e. Once a day
   f. Other (please specify) .................................................

4. Thinking about your co-construction with the children, how many days, on average, would it be between the actual event that is the focus of the documentation, e.g., building of a block tower, and you talking with the child about the event:
   a. One day
   b. Two days
   c. Three days
   d. Four days
5. Any comments on the ideal time that should lapse between the event and the recollection/reflection on the event?
________________________________________________________________________
________________________________________________________________________

6. Does the location of the reflective dialogue and co-construction seem to have an effect on the process? Where in the room do you find it most effective to sit with the child to reflect on the event being documented? Any other comments on location?
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

7. For each of the following reflective dialogue prompts, please indicate how effective they have been in your conversations with the children. As well, please add any comments that you may have about the effectiveness of the particular prompts, e.g., what made them effective or ineffective.

a. *Let’s talk about these photos/this drawing/this construction. Tell me about what you/you and your friends did here.*
   i. Very Effective  
   ii. Effective  
   iii. Not Effective  
   iv. Didn’t use it
Comments:
________________________________________________________________________

b. *What were you thinking about here?*
   i. Very Effective  
   ii. Effective  
   iii. Not Effective  
   iv. Didn’t use it
Comments:
________________________________________________________________________

b. *What were these other kids in the picture doing? (If more than one child was involved)*
   i. Very Effective
ii. Effective
iii. Not Effective
iv. Didn’t use it
Comments:

---

d. *Did you have any problems while you were doing this?*
   i. Very Effective
   ii. Effective
   iii. Not Effective
   iv. Didn’t use it
Comments:

---

e. *How did you figure things out? What did you do first?*
   i. Very Effective
   ii. Effective
   iii. Not Effective
   iv. Didn’t use it
Comments:

---

f. *How did you know what to do? (Did anyone tell you? Did you remember doing anything like this before?)*
   i. Very Effective
   ii. Effective
   iii. Not Effective
   iv. Didn’t use it
Comments:

---

g. *What do you want others (people, kids, parents) to know about this? How should we tell them? What should we say?*
   i. Very Effective
   ii. Effective
   iii. Not Effective
   iv. Didn’t use it
Comments:
h. Does this (experience) remind you of anything that we’ve done here before? Can you tell me about that?
   i. Very Effective
   ii. Effective
   iii. Not Effective
   iv. Didn’t use it

Comments:

i. Does this (experience) give you any ideas on what you want to do next? Let’s write down your ideas.
   i. Very Effective
   ii. Effective
   iii. Not Effective
   iv. Didn’t use it

Comments:

8. Which of the prompts listed above was the most effective?

9. Which of the prompts listed above was the least effective?

10. Did you use any of your own reflective dialogue prompts? If so, what were they and how effective were they?

11. How long, on average, would your reflective conversation last with a child or group of children?

12. How many reflective prompts or questions would you ask during your reflective conversation?
   a. One
b. Two

c. Three

d. Four

e. Other (please specify) ..............................................................

13. What are some of the challenges to co-constructing pedagogical documentation with children?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

14. Has the co-construction process contributed at all to your ‘image of the child’ including your understanding of children’s developmental strengths, needs, and interests? If so, how?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

15. How has the co-construction process affected your level of reflective practice with the children?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

16. How has the co-construction process affected your program planning, e.g. contributed to ideas for activities with the children?

________________________________________________________________________
17. What have been some of the benefits of co-constructing pedagogical documentation with children?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

18. What supports do you have (or would you need to have) in order to effectively co-construct pedagogical documentation with children?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Any other comments?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

THANK YOU SO MUCH FOR THE EFFORT THAT YOU HAVE BEEN PUTTING INTO THIS RESEARCH PROJECT. YOUR TIME AND YOUR INPUT IS EXTREMELY VALUABLE AND I APPRECIATE ALL THAT YOU HAVE DONE TO DATE. I LOOK FORWARD TO CONTINUING OUR WORK OVER THE NEXT FEW MONTHS.
FINAL (THIRD) ECE QUESTIONNAIRE

EARLY CHILDHOOD EDUCATOR QUESTIONNAIRE (Final Questionnaire)

RESEARCH STUDY

Examining co-construction of pedagogical documentation

By children and educators in early learning environments

Name:
Date:

To ECEs: As you recall, as part of the research study examining the co-construction of ‘pedagogical documentation’ (photos and descriptions of children’s play activities), you are asked to complete three questionnaires – one at the beginning of the study, one at the middle (at the three-month mark) and one at the end of the study, approximately six months after the first questionnaire.

This is the final questionnaire and it focuses on your experience in the research study to date and on the topic of co-constructed pedagogical documentation.

Please reply to all the questions and feel free to make your own comments at the end of the questionnaire.

For multiple choice questions, please circle the letter that corresponds most closely with your answer.

As we’ve discussed, co-constructed pedagogical documentation refers to documentation that is created by both you and the child or children. This documentation is an opportunity for both you and the children to be reflective when discussing a situation or event that you have documented with a photo or that is represented by a drawing or a work sample made by the child/children.

This type of documentation is written for the children, with the children, and by the children – meaning that the child is the main audience. The educator’s role is to facilitate conversation with the child (using reflective dialogue prompts), reflect with the child and to act as a scribe, writing down the words of the children as they reflect on their experience.
With this definition in mind:

1. How would you describe your current comfort level in producing co-constructed pedagogical documentation with children?
   a. Not comfortable at all.
   b. Somewhat comfortable
   c. Comfortable.
   d. Very comfortable
   e. Other (please specify) ________________________________

2. Outside of this research study, how much time per week, on average, do you spend on creating documentation? This would include taking and printing photos, creating captions for photos, and creating the documentation display.
   a. One hour per week
   b. Two hours per week
   c. Three hours per week
   d. More than three hours per week (please specify) _____________
   e. Less than one hour per week

3. From a ‘time-wise’ point of view, do you think the concept of co-constructed documentation would:
   a. Take less time than my usual method of documentation
   b. Take the same amount of time as my usual method of documentation
   c. Take more time than my usual method of documentation
   d. Other (please specify)

4. One of the expectations of this study was to produce one example of co-constructed documentation per month. Was this expectation:
   a. Too ambitious
   b. Realistic
   c. Not ambitious enough
   d. Other (please specify)

5. During the six months of the study, did you notice a difference in your conversations with children during the co-construction process? Would you say that the children:
   a. Became more reflective
   b. Did not experience any change in their ability to be reflective
   c. Were not able to be reflective throughout the study
d. Became less inclined to want to talk about their work/photos
   e. Other (please specify)

6. During the six months of the study, did your ability to reflect with the children change?
   a. I became more reflective with the children
   b. I did not experience any change in my ability to be reflective
   c. I was not able to be reflective with the children
   d. Other (please specify)

7. In your opinion, is there a connection between the process of co-constructing documentation and intentionality in your practice?
   a. Yes
   b. No
   c. Not sure

8. If you answered yes to the previous question, what was it about the co-construction process that contributed to your ability to be intentional in your practice?

9. In your opinion, did the process of co-constructing documentation influence your understanding of the children’s developmental strengths, needs, and interests over the past six months?
   a. Yes
   b. No
   c. Not sure

10. If you answered yes to the previous question, what was it about the co-construction process that contributed to your ability to become more aware of the children’s developmental strengths, needs, and interests?
11. When children reflect on their play, they sometimes talk about what they’ve learned, or what they were thinking (metacognition). Did you see examples of this over the past six months when you intentionally reflected with a child for the purposes of co-constructing documentation?
   a. Yes
   b. No
   c. Not sure

12. In your opinion, what is it about the co-construction process that seems to affect children’s level of metacognition?

13. Over the past six months, did the process of co-constructing documentation appear to influence parents’ level of understanding and engagement in their child’s play-based learning?
   a. Yes
   b. No
   c. Not sure

14. If you answered yes to the previous question, what was it about the co-construction process that influenced parents’ level of understanding and engagement in their child’s play-based learning?

15. Are there any technical difficulties that you experienced when co-constructing documentation with children? Please explain:

16. Are there other difficulties that you experienced over the last six months related to the creation of co-constructed documentation? Please explain.
17. Co-constructed documentation differs from other forms of documentation because the main audience is the child. This means that the focus of the documentation is not on an assessment or interpretation of what learning has happened, it is more focused on the child’s recollection and interpretation of the event. This may be different from the way that you have documented in the past. Did you have any difficulties with designing documentation for a child audience? Please elaborate:

18. In your opinion, is there value in designing documentation for a child audience?
   a. I think there is great value in this.
   b. I think there is some value in this
   c. I think there is limited value in this
   d. I think there is no value in this
   e. Other (please specify)

19. What is one ‘take-away’ lesson gained from your participation in this study?

Any other comments?

THANK YOU SO MUCH FOR THE EFFORT THAT YOU PUT INTO THIS RESEARCH PROJECT. YOUR TIME AND YOUR INPUT HAS BEEN INVALUABLE. I GREATLY APPRECIATE ALL OF YOUR WORK, YOUR OPENNESS TO NEW IDEAS AND YOUR WELCOMING ATTITUDE TO ME AND TO MY RESEARCH.
Appendix D
Early Childhood Educator Interview Questions

INITIAL INTERVIEW

Directions: I am going to read each question (and state the number of the question for the purposes of the audio recording). This interview will be recorded (audio) and I will also be taking notes. Please answer to the best of your ability. You can ‘pass’ any question that you don’t know how to answer or don’t wish to answer.

The first section of this interview is on pedagogical documentation.

Pedagogical Documentation

1. Tell me how you first heard about pedagogical documentation and what brought you to it.

2. Are you able to share an example of your pedagogical documentation with me? Tell me about it.

3. Describe how the process of documentation works in your playroom? Have you involved children in the construction of pedagogical documentation in your playroom? Have you involved parents or other family members in the documentation process?

4. Why do you create pedagogical documentation in your playroom? (prompt: What are the benefits?)

5. How would you describe your comfort level with documentation? What factors affect your level of comfort? What are some of the current challenges or obstacles to creating pedagogical documentation in your playroom?

6. The term ‘co-constructing documentation’ refers to a process where you and the child or children would create documentation together. The documentation that you create would be designed for the child’s use – the child is the main audience. How is this process different from what you do now? (Prompt: Currently, who is the main audience for your documentation – who are you creating it for?) What do you think the benefits would be of co-constructing pedagogical documentation with children? (for you, for the child, for the parent, for the other children, for the learning environment).

7. What external factors might affect your ability to co-construct pedagogical documentation with children? (prompt: factors that might support your ability to do this and factors that might be considered obstacles)

8. Would you like to know more about in terms of co-construction of pedagogical documentation? Which areas would you like to explore?
The second part of this interview relates to reflective practice, reflective dialogue, and intentional practice.

One definition of reflective practice is “…thoughtful consideration of a situation or event that has taken place with the intention of understanding and learning from it and changing or improving future actions.” (Kapoor, 2014). It involves thinking critically about your own philosophy of early learning - what your image is of the child and your image of you as an early childhood educator and how these beliefs inform your everyday practice. Reflection is best practiced with others – other educators and/or the children with whom you work.

9. Would you say that you are satisfied with the level of reflective practice in your playroom? Please explain. (Prompt: to help you think about this, consider that the opposite of ‘reflective practice’ would be ‘routine action’ or doing things just because that is the way we’ve always done them.)

Reflective dialogue refers to talking about something that has already happened – with either children or adults. When ECEs engage in reflective dialogue with a child, s/he is providing an opportunity for the child to display to the ECE what they were thinking while they were doing an activity. When children talk about their own thinking, it is referred to as ‘metacognition’. You hear examples of this when children say things like “I think that Alex wanted to make the blocks higher but she didn’t…” Or “I remembered that time when we saw the tadpoles so I drew these dots inside the puddle. They are the tadpoles.”

10. Can you recall a time when you’ve had a conversation with a child that included this type of reflective dialogue? Please give an example.

Intentionality or intentional thinking is related to and is often a result of reflective practice. Intentionality refers to having ‘a purpose behind every decision and skill in articulating the reasons for actions.’ (Feeney, Moravcik, & Nolte (2016). Who Am I in the Lives of Children, 10th ed. Pearson: Boston, MA.)

11. Would you describe the practice in your playroom as being ‘intentional’? Can you tell me about that? (Prompt: Can you think of a recent planning decision you made or a deliberate interaction you had and what the purpose was behind that decision or action)

12. Have you faced any challenges in terms of being reflective or intentional in your practice? Tell me about that.

13. What would you like to know more about in terms of reflective dialogue, reflective practice and/or intentional practice?

General
Do you have any other comments or questions to add to our discussion today?
SECOND ECE INTERVIEW

Directions: I am going to read each question (and state the number of the question for the purposes of the audio recording). This interview will be recorded (audio) and I will also be taking notes. Please answer to the best of your ability. You can ‘pass’ any question that you don’t know how to answer or don’t wish to answer.

Co-Constructed Pedagogical Documentation

1. Are you able to share an example of your co-constructed pedagogical documentation with me? Let’s talk about it.

2. Describe how the process of co-constructed documentation has worked with you and the children over the past month? Have you involved parents or other family members in the documentation process?

3. How would you describe your comfort level with this type of co-constructed documentation? What factors affect your level of comfort?

4. What are some of the current challenges or obstacles to creating pedagogical documentation in your playroom?

5. What have been some of the factors that have supported or assisted with the co-construction process?

6. Have you used any of the sample prompts to initiate ‘reflective dialogue’ with the children in the process of co-construction? Which ones were most effective? Which ones were least effective?

7. Can you recall an example of reflective dialogue that you had with the children?

8. Has the co-construction had any effect on your planning process? How? Can you give any examples of how you may have been more intentional in your practice as a result of co-construction?

9. Anything that I should ask you that I haven’t already asked?
THIRD ECE INTERVIEW

Directions: I am going to read each question (and state the number of the question for the purposes of the audio recording). This interview will be recorded (audio) and I will also be taking notes. Please answer to the best of your ability. You can ‘pass’ any question that you don’t know how to answer or don’t wish to answer.

Co-Constructed Pedagogical Documentation

1. Describe how the process of co-constructed documentation has worked with you and the children over the past month? Any examples to share?

2. Have you had any conversations with parents about the documentation itself or the co-construction process?

3. Have you used any of the reflective dialogue prompts? Tell me about this.

4. Has the notion of co-construction had any effect on your interactions with children? In other words, are you doing anything differently as a result of being involved in this study?

5. Anything that I should ask you that I haven’t already asked?
FOURTH ECE INTERVIEW

Directions: I am going to read each question (and state the number of the question for the purposes of the audio recording). This interview will be recorded (audio) and I will also be taking notes. Please answer to the best of your ability. You can ‘pass’ any question that you don’t know how to answer or don’t wish to answer.

Co-Constructed Pedagogical Documentation

1. Describe how the process of co-constructed documentation has worked with you and the children over the past month? Any examples to share?

2. Have you had any conversations with parents about the documentation itself or the co-construction process?

3. What are you learning about children through the process of co-constructed pedagogical documentation?

4. Has co-construction had any effect on your interactions with children? In other words, are you doing anything differently as a result of being involved in this study?

5. Anything that I should ask you that I haven’t already asked?
FIFTH/FINAL ECE INTERVIEW

Directions: I am going to read each question (and state the number of the question for the purposes of the audio recording). This interview will be recorded (audio) and I will also be taking notes. Please answer to the best of your ability. You can ‘pass’ any question that you don’t know how to answer or don’t wish to answer.

This is our final interview – I will ask some of our usual questions but also include some questions about the research study in general.

1. Describe how the process of co-constructed documentation has worked with you and the children over the past month? (Please bring along an example of co-constructed documentation to the interview).

2. Have you been able to display any co-constructed documentation over this past month? If so, have you discussed it with any parents? Have any children noticed the display? Let’s talk about this.

3. In terms of your daily interactions with the children, are you doing anything differently as a result of being involved in this study?

4. Do you think there is any value in reflecting with children? Let’s talk about that.

5. Do you think there is any value in co-constructing documentation with children? Let’s talk about that.

6. Will you continue to co-construct documentation with children? Why or why not?

7. What advice would you give someone who wants to co-construct pedagogical documentation with children?

8. Final thoughts?

9. Anything that I should ask you that I haven’t already asked?
Appendix E
Parent Questionnaires

Initial Questionnaire

RESEARCH STUDY

Examining co-construction of pedagogical documentation
By children and educators in early learning environments

PARENT QUESTIONNAIRE

To parents: Thank you for providing your consent to be a part of the research study examining the co-construction of ‘pedagogical documentation’ (photos and descriptions of your child’s play activities).

As a participant in this study, you will be asked to complete three questionnaires – one at the beginning of the study, one at the middle (at the three-month mark) and one at the end of the study, approximately six months after the first questionnaire.

This questionnaire asks for information on ways that you and the staff at XYZ Child Care Centre communicate and discuss your child’s activities and interests.

Please reply to all the questions and feel free to make your own comments at the end of the questionnaire. For multiple choice questions, please circle the letter that corresponds most closely with your answer.

1. Your child’s date of birth
   .................................................................................................................................

2. How long has your child been attending XYZ Child Care Centre?
   .................................................................................................................................

3. How often does your child attend XYZ Child Care Centre?
   a. Hours per day ........
   b. Days per week........

4. Do you regularly drop your child off at the child care centre in the morning?
   a. Yes
   b. No
   c. If ‘no’, please indicate who drops child off, e.g., ‘other parent’, ‘grandparent’.
5. Do you regularly pick your child up at the child care centre in the afternoon?
   a. Yes
   b. No
   c. If ‘no’, please indicate who picks child up in the afternoon, e.g., ‘other parent’, ‘grandparent’.

6. How often do you talk in person with the early childhood educator(s) who work closely with your child?
   a. Almost never
   b. Once or twice per year
   c. Every few months
   d. Once or twice a month
   e. Once or twice a week
   f. Daily

7. How often do you correspond with the early childhood educator(s) who work closely with your child using email, text, or phone calls?
   a. Almost never
   b. Once or twice per year
   c. Every few months
   d. Once or twice a month
   e. Once or twice a week
   f. Daily

8. How do you prefer to communicate with the staff at the child care centre?
   a. In person
   b. By email
   c. By text
   d. By telephone
   e. Other

9. When you communicate with your child’s early childhood educator(s), what topics do you generally discuss? (Please circle all that apply)
   a. Your child’s play experiences/activities during the day
   b. Your child’s behaviour during the day
   c. Your child’s progress and development
d. General topics related to the child care centre, e.g. parent policies, reminders about upcoming events

e. Other .............................................................................................................

Please read the following and indicate which answer best matches the statement by circling the corresponding letter.

I feel I have a good understanding of what my child does during the day in terms of their activities and their learning.

  f. Strongly agree
  g. Agree
  h. No opinion
  i. Disagree
  j. Strongly Disagree

10. I feel I have a good understanding of my child’s particular interests (friends, favourite play materials, games) at the child care centre.

   a. Strongly agree
   b. Agree
   c. No opinion
   d. Disagree
   e. Strongly Disagree

11. My child talks with me about specific activities that happen at the child care centre.

   a. Every day
   b. Some days
   c. Once a week
   d. Seldom
   e. Never

12. My child talks with me about specific people (children or adults) at the child care centre.

   a. Every day
   b. Some days
   c. Once a week
   d. Seldom
   e. Never

13. I am aware of a particular adventure/exploration/activity that my child was involved in at the centre over the past month.
14. I have seen pictures at the child care centre or read about a particular adventure/exploration/activity that my child was involved in at the centre over the past month.
   a. Yes
   b. No
   c. If ‘yes’, please provide an example
      ……………………………………………………………………………………………
      ……………………………………………………………………………………………
      ……………………………………………………………………………………………

15. I have shared photos or stories written by an early childhood educator about activities that my child has engaged in at the child care centre with a family member (e.g., partner, parent, sibling).
   a. Often
   b. Sometimes
   c. Rarely
   d. Never
   e. I have not seen photos or stories involving my child at the child care centre.

16. Photos or stories involving my child displayed at the child care centre have increased my understanding of my child’s learning.
   a. Strongly agree
   b. Agree
   c. No opinion
   d. Disagree
   e. Strongly Disagree
   f. I have not seen photos or stories involving my child at the child care centre.

17. My child has had an interest that has ‘spilled over’ from the centre to our home, for example, an interest in making paper airplanes, or an interest in insects.
   a. Yes
   b. No
   c. If ‘yes’, please provide an example
FINIAL PARENT QUESTIONNAIRE

To parents: Over the past six months, your child’s early childhood educator has been participating in a research study examining the co-construction of ‘pedagogical documentation’ (photos and descriptions of your child’s play activities – also known as ‘documentation’). This study has received approval from the Review Ethics Board of University of Toronto (protocol reference # 33443).

For those of you who have provided consent for your child’s photographs and work samples to be a part of this study, thank you very much. If you haven’t already provided consent but would still like to do so, which means that examples of documentation featuring your child can also be included in the study, please sign the parental consent form which is available at the centre or by contacting me directly at xxx. For every signed consent form, your child’s classroom will receive a $2 donation for the classroom library.

Questionnaires and signed consent forms must be received by June 16th in order to be included.

Many of you completed questionnaires at the beginning of the study. That questionnaire focused on ways that you and the staff at the centre communicate and discuss your child’s activities and interests. This is the second and final parent questionnaire of the study. You may complete this questionnaire even if you did not complete the first one. The information that you provide will be very helpful in this research study and your participation is very appreciated.

Please reply to all the questions and feel free to make your own comments at the end of the questionnaire. For multiple choice questions, circle the letter that corresponds most closely with your answer.

1. Your child’s date of birth

2. How long has your child been attending XYZ Child Care Centre?

3. How often does your child attend the centre?
   a. Hours per day ........
   b. Days per week........
Please read the following and indicate which answer best matches the statement by circling the corresponding letter.

Over the past six months, I have seen documentation that featured my child (alone or with other children) at the centre.

a. Yes  
b. No  

If ‘yes’, please provide an example

……………………………………………………………………………………………………
……………………………………………………………………………………………………
……………………………………………………………………………………………………

4. Documentation displayed at the child care centre has increased my understanding of my child’s learning.

a. Strongly agree  
b. Agree  
c. Disagree  
d. Strongly Disagree  
e. I have not seen photos or stories involving my child at the child care centre.

5. In the past six months, I am aware of a situation where my child has worked directly with an early childhood educator to create a documentation display featuring one of their play experiences, i.e., my child’s words were included in the captions used with the photos of a play experience.

a. Yes  
b. No  
c. If ‘yes’ please provide an example

……………………………………………………………………………………………………
……………………………………………………………………………………………………

6. Over the past six months, I have noticed a difference in the number of photo displays (documentation) in the classroom (or hallway) featuring children’s play activities.

a. Substantial increase  
b. Slight increase  
c. No difference  
d. Slight decrease  
e. Substantial decrease

7. I often do not have time at drop off time or pick up time to take a good look at the documentation displays that are posted at the centre:

a. Strongly agree
b. Agree
c. Disagree
d. Strongly Disagree

8. I do not notice when new photos or examples of the children’s work have been posted in the classroom or the hallway.
   a. Strongly agree
   b. Agree
   c. Disagree
   d. Strongly Disagree

9. Over the past six months, staff at the centre have let me know that there is a new documentation display posted that features my child’s play or work.
   a. Yes
   b. No
   c. If ‘yes’ please provide an example
      ........................................................................................................................................
      ........................................................................................................................................

10. I think the posting of documentation displays in the classroom or hallway is useful to me as a parent.
    a. Strongly agree
    b. Agree
    c. No opinion
    d. Disagree
    e. Strongly Disagree

Please explain how documentation is useful to you as a parent or, if you think it is not useful, please explain why:

........................................................................................................................................
........................................................................................................................................

11. I think the best place to post documentation of children’s activities so that I will notice it and be able to look at it is (circle all that apply)
    a. Hallway
    b. Cubbie area
    c. In the classroom
    d. In the entry way
    e. On Facebook page or website
    f. Other (please specify): .................................................................

12. I think that the best way to let me know that a new documentation display is posted is to:
    a. Email me
b. Text me

c. Call me

d. Tell me in person

e. Post it on Facebook

f. I don’t need to know if a new documentation display is posted

g. Other (please specify): ____________________________

13. I am comfortable with having my child’s photo used in documentation displays in the centre:
   a. Yes
   b. No
   c. It depends (please explain): ____________________________

14. I am comfortable with having my child’s photo used in documentation displays on social media (Facebook or website)
   a. Yes
   b. No
   c. It depends (please explain): ____________________________

Please use this space to add any comments or questions regarding your thoughts on how your child’s play has been documented since he or she has started attending the centre.

________________________________________________________________________________________

________________________________________________________________________________________

________________________________________________________________________________________

Any additional comments?

________________________________________________________________________________________

________________________________________________________________________________________

________________________________________________________________________________________

________________________________________________________________________________________

Thank you for your time and cooperation!
Appendix F
Information Letter/Letter of Consent (Educators)

RESEARCH STUDY
Examining co-construction of pedagogical documentation
By children and educators in early learning environments

INFORMATION LETTER/CONSENT FORM FOR EARLY CHILDHOOD EDUCATORS

Dear Early Childhood Educator

I am an assistant professor at Mount Saint Vincent University in the Bachelor of Child and Youth Study program and also a PhD student at the University of Toronto doing research in early learning. As part of my PhD studies at University of Toronto, I would like to invite you to participate in a research study titled “Examining co-construction of pedagogical documentation by children and educators in early learning environments” with an approximate time frame of six months from start to finish.

If you agree to join the study, you will be asked to participate in four interviews throughout the six-month study to discuss your thoughts and experiences with co-constructing pedagogical documentation with children and families and you will also be asked to share samples of your documentation with the researcher. You will also complete a short questionnaire at the beginning of the study, at the beginning of the second month and third month of the study, and then again at the end of the study (approximately six months from the beginning of the study). As part of the research study, the researcher will conduct four short (one hour in length) observations in your playroom at the centre.

There is a consent form attached to this letter for participating in this research and it must be signed by you. All information used in this research study will be held strictly confidential and will be viewed by the researcher (me). The Human Research Ethics Program of the University of Toronto may also have confidential access to data to help ensure participant protection procedures are followed. This is consistent with the University of Toronto Guidelines for Informed Consent. No names or specific locations of sites will be included in the study. If you would like to have a summary of the findings from this research study, please indicate this on the consent form. As soon as the report is ready I will send it to you via the child care centre.

It is to be noted as well that, like all adults who work directly or indirectly with children, I have a duty to report to the proper authorities if I witness or learn about any situations involving the abuse of children or if a child discloses to me that they have been abused.
Before you give your consent to be a volunteer, it is important that you read the following information and ask as many questions as necessary to be sure you understand what is involved in this research study.

I sincerely hope that you will be able to participate in this research study. Findings from this research study will be shared with ECEs, faculty at post-secondary institutions, and policy-makers. Please read the following information and sign the attached consent form. If you have any additional questions you can contact me at xxx. I look forward to your participation.

Sincerely,
Examining co-construction of pedagogical documentation by children and educators in early learning environments

Investigator:

Purpose of Study:
The purpose of the study is to look closely at what factors contribute to and result from the co-construction of documentation of children’s activities and experiences by educators and children in a play-based early learning environment.

This study will be guided by the following research questions relating specifically to the co-construction of pedagogical documentation:

1. What factors contribute to educators’ understanding of children’s developmental strengths, needs, and interests?
2. What factors contribute to educators’ ability to be reflective and intentional in their practice?
3. What factors seem to influence children’s level of metacognition?
4. What factors influence parents’ understanding and engagement in their child’s play-based learning?

What is experimental in this study?
The experimental aspect of this study will be the challenge provided to ECEs to increase the involvement of children in the co-construction of pedagogical documentation and the information that early childhood educators will receive related to the topic of co-constructed pedagogical documentation. This intervention will possibly affect their practice in ways that will see the educators encouraging children to become more involved in documenting their own play-based activities, using photos, drawings and discussion of the children’s work as the basis of the co-constructed pedagogical documentation. This intervention may also increase the level of engagement of parents in the child’s play-based learning.

Risks or Discomforts:

There are little to no perceived risks or discomforts associated with this research study. ECEs will be discussing the process of pedagogical documentation and sharing examples of pedagogical documentation with the researcher. Participant ECEs will be working directly with the children in their own particular group. As well, ECE participants will be participating in one-on-one interviews with the researcher and will be asked to complete a questionnaire/survey at various points during the research timeframe (approximately six months). There will also be observations conducted at four points during the six-month research period. This study has received approval from the Review Ethics Board of University of Toronto (protocol reference number: 33443).
Benefits of the Study:

The materials resulting from this research study will be for educational and scholarly research only. There are no benefits that the subjects can reasonably expect from this study other than a sense of increased engagement in and understanding of their child’s play-based learning activities and the co-construction of pedagogical documentation.

Confidentiality:

Confidentiality of the participant will be protected in all parts of the research and dissemination. Names of participants and locations of sites will not be identified in the study or in any publications. All information used in this research study will be held strictly confidential and will be viewed by the researcher. The Human Research Ethics Program of the University of Toronto may also have confidential access to data to help ensure participant protection procedures are followed. This is consistent with the University of Toronto Guidelines for Informed Consent.

There are some limits to confidentiality related to possible visual identifiers of participants through video/photo/audio components of the pedagogical documentation. Participants may have copies of any photos/video/ or audio relating to their own participation upon completion of the study. Digital copies (e.g. through scanning or photos) of children’s work or of children participating in activities, with all identification of children removed, may be kept with the researcher for research, publication and presentation purposes. It is to be noted as well that, like all adults who work directly or indirectly with children, I have a duty to report to the proper authorities if I witness or learn about any situations involving the abuse of children or if a child discloses to me that they have been abused.

Incentive to Participate:

The participants will not be paid to participate in the study; however, $2 will be donated to the centre library for every completed parental consent form received.

Voluntary Nature of Participation:

Participation in this study is voluntary. Your choice of whether to participate or not will not influence your future relations with the researcher, the director of the participating centre, or your role within the early learning and child care centre. If you decide to participate, you are free to withdraw your consent and to stop your participation at any time without penalty. At any particular point in the study, you may refuse to participate or stop participation altogether. To withdraw your participation, you can inform the research team either verbally or in writing that you no longer want to participate in the research study. If you withdraw from the study, information pertaining to you will be removed from the database and will not be used for the purposes of the research study. Children will also have the right to refuse to participate in the study at any point during the six-month period. They may choose to not share their drawings, writings, or photos and they may choose to not participate in the final focus group which will be held in their playroom with their peers. Children’s choice will be respected at all times throughout the study.
Questions about the Study:

If you have any questions about the research now, please ask. If you have questions later about the research, you may contact:
Appendix G
Information Letter/Letter of Consent (Parents)

RESEARCH STUDY

Examining co-construction of pedagogical documentation
by children and educators in early learning environments

Dear Parent/Guardian

I am an assistant professor at Mount Saint Vincent University in the Bachelor of Child and Youth Study program and also a PhD student at the University of Toronto. I am doing research in the area of early learning. As part of my PhD studies at University of Toronto, I would like to invite you and your child to participate in a research study entitled ‘Examining co-construction of pedagogical documentation by children and educators in early learning environments’ with an approximate time frame of six months from start to finish. The term ‘pedagogical documentation’ refers to the collection and display of documents, such as children’s drawings and photos of their participation in activities, for the purposes of examining and reflecting upon how and what children learn and experience through play.

If you agree for you and your child to participate, you, as a parent, will be asked to complete a short questionnaire at the beginning of the study, in the middle of the study (at the three-month mark) and then again at the end of the study (approximately six months later). You may also be asked to participate in a short interview (30-45 minutes).

Your child’s participation will involve him or her talking with their regular (and familiar) early childhood educator (ECE) about their thoughts and feelings about some of the usual activities they do as part of their day in child care. They will also be invited to work with the ECE to document their experiences using photos, drawings, and discussion. This is not unlike the activities and interactions that children and ECEs do at this centre on a regular basis.

In addition, children will be given the choice to participate in a focus group with the primary researcher at the end of the study. This focus group will take place in your child’s playroom with their educator present. During this focus group, I will ask the children a few questions about a piece of documentation that they have created with the ECE in the playroom.

Given your child’s age, he or she cannot provide official consent to be a part of this research study, so, at the beginning of the study and throughout its duration, children will be asked to provide ‘assent’ to participate. This will be done by having the early childhood educator ask children if they are willing to share copies of their drawings, writings, and photos with the researcher, assuring them that they can keep their original copies. Children have the choice to refuse this request at any time. Children will also have the choice as to whether or not they would like to participate in the final focus group.
There is a consent form attached to this letter for participating in this research and it must be signed by you. All information used in this research study will be held strictly confidential and will be viewed by the researcher (me). The Human Research Ethics Program of the University of Toronto may also have confidential access to data to help ensure participant protection procedures are followed. This is consistent with the University of Toronto Guidelines for Informed Consent. Your name or your child’s name will not be published or used in the study. If you would like to have a summary of the findings from this research study, please indicate this on the consent form. As soon as the report is ready I will send it to you via the child care centre.

It is to be noted as well that, similar to all adults who work directly or indirectly with children, I have a duty to report to the proper authorities if I witness or learn about any situations involving the abuse of children or if a child discloses to me that they have been abused.

Before you give your consent to be a volunteer, or volunteer your child (ren), it is important that you read the following information and ask as many questions as necessary to be sure you understand what is involved in this research study.

I sincerely hope that you and your child will be able to participate in this research study. Results of this study will be shared with ECEs, faculty at post-secondary institutions and policy-makers. Please read the following information and sign the attached consent form. If you have any additional questions about this research study, you can contact me at xxx or by calling xxx I look forward to your participation.

Sincerely,
Examining co-construction of pedagogical documentation by children and educators in early learning environments

**Investigator:**

**Purpose of Study:**

The purpose of the study is to look closely at what factors contribute to and result from the co-construction of documentation of children’s activities and experiences by educators and children in a play-based early learning environment.

This study will be guided by the following research questions relating specifically to the co-construction of pedagogical documentation:

1. What factors contribute to educators’ understanding of children’s developmental strengths, needs, and interests?
2. What factors contribute to educators’ ability to be reflective and intentional in their practice?
3. What factors seem to influence children’s level of metacognition?
4. What factors influence parents’ understanding and engagement in their child’s play-based learning?

**What is experimental in this study?**

The experimental aspect of this study will be the examination of co-constructed pedagogical documentation that will occur in the play-based early learning setting over the six-month period of the study. This practice of co-construction (meaning that educators and children will work together to construct documentation) will possibly affect practice in ways that will see the educators encouraging children to become more involved in documenting their own play-based activities, using photos, drawings and discussion of the children’s work as the basis of the co-constructed pedagogical documentation. As well, educator’s level of reflection and intentionality may increase as a result of their change in practice.

**Risks or Discomforts:**

There are no perceived risks or discomforts associated with this research study. Children can choose whether they want to engage in the co-construction of pedagogical documentation or whether they want to enter a discussion about their play-based activities and experiences with their early childhood educator. The educator will be one with whom the child is very familiar, i.e., one who works with and interacts regularly with the child. Participating children’s choice will be respected and adhered to if they choose not to engage in the process at any given time.
Parents will also be given the choice as to whether they would like to participate in interviews or surveys related to this research study. Parents’ choice will be respected and adhered to.

This study has received approval from the Review Ethics Board of University of Toronto (protocol reference number: 33443).

**Benefits of the Study:**

The materials resulting from this research study will be for educational and scholarly research only. There are no benefits that the subjects can reasonably expect from this study other than a sense of increased engagement in and understanding of their child’s play-based learning activities.

**Confidentiality:**

Confidentiality of the participant will be protected in all parts of the research and dissemination. Participant names will not be published or used in the study. There are some limits to confidentiality related to possible visual identifiers of participants through video/photo/audio components of the pedagogical documentation. Participants may have copies of any photos/video/ or audio relating to their own participation or that of their child(ren) upon completion of the study. Digital copies (e.g. through scanning or photos) of children’s work or of children participating in activities, with all identification of children removed, may be kept with the researcher for research, publication and presentation purposes. Participants can indicate on the letter of consent (below) if they wish to participate but do not want their child to be photographed or videotaped as part of the research study. The Human Research Ethics Program of the University of Toronto may also have confidential access to data to help ensure participant protection procedures are followed. This is consistent with the *University of Toronto Guidelines for Informed Consent*.

It is to be noted as well that, similar to all adults who work directly or indirectly with children, the principal investigator and any members of a research team have a duty to report to the proper authorities if they witness or learn about any situations involving the abuse of children or if a child discloses to an adult that they have been abused.

**Incentive to Participate:**

The participants will not be paid to participate in the study; however, $2 will be donated to the centre library for every completed parental consent form received.

**Voluntary Nature of Participation:**

Participation in this study is voluntary. Your choice of whether to participate will not influence your future relations with the researcher, the director and staff of the participating centre, or your role within the early learning and child care centre. If you decide to participate, you are free to withdraw your consent and to stop your participation at any time without penalty. At any particular point in the study, you may refuse to participate or stop participation altogether. To withdraw your participation, you can inform the research team either verbally or in writing that you no longer want to participate in the research study. If you withdraw from the study,
information pertaining to you and your child will be removed from the database and will not be used for the purposes of the research study. Children will also have the right to refuse to participate in the study at any point during the six-month period. They may choose to not share their drawings, writings, or photos and they may choose to not participate in the final focus group which will be held in their playroom with their peers. Children’s choice will be respected at all times throughout the study.

Questions about the Study:

If you have any questions about the research now, please ask. If you have questions later about the research, you may contact:
PARENTAL CONSENT FORM FOR PARTICIPATION IN RESEARCH
AND FOR CHILD PARTICIPATION IN RESEARCH

Examining co-construction of pedagogical documentation by children and educators in early learning environments

I…………………………………………………………………………………being over the age of 18 years hereby consent to my child ………………………………………………………..
participating, as requested, for the research project on Examining co-construction of pedagogical documentation by children and educators in early learning environments.

1. I have read the information provided.
2. Details of the procedures and any risks have been explained to my satisfaction.
3. I am aware that I should retain a copy of the Information Sheet and Consent Form for future reference.
4. I understand that:
   a. My child may not directly benefit from taking part in this research.
   b. My child is free to withdraw from the project at any time and is free to decline to answer particular questions.
   c. While the information from this study will be published as explained, I will not and my child will not be identified, and individual information will remain confidential.
   d. Whether my child participates or not, or withdraws after participating, will have no effect on any treatment or service that is being provided to him/her.
   e. My child may ask that any recording or observation be stopped at any time, and he/she may withdraw at any time from the session or the research without disadvantage.

Agreement:

Your signature below indicates that you have read the information in this agreement and have had a chance to ask any questions you have about the study. Your signature also indicates that you agree to be in the study and have been told that you can change your mind and withdraw your consent to participate at any time. You have been given a copy of this agreement and are fully aware of the conditions herein.

Please initial if the participant (child) can be:

_____audio taped _____videotaped _____photographed
Please initial if the participant (child) can participate in a short focus group which will take place in the child’s playroom with the early childhood educator present. 

Please initial if you would like a summary of the findings of the study upon completion: 

You have been told that by signing this consent agreement you are not giving up any of your legal rights.

________________________________________  _______________________________________
Name of participating child (please print)  Name of Participating Family Member (please print) 

_____________________________
Consent of Family Member for Participating Child (please print) 

________________________________________  _______________________________________
Signature of Participant (and/or Consenting Family Member)  Date 

I certify that I have explained the study to the volunteer and consider that she/he understands what is involved and freely consents to participation.

Researcher’s name

________________________________________

Researcher’s signature

________________________________________

Date: __________________________

* Please keep a copy of this form for your records
Appendix H
Children’s Focus Group

June 26, 2017

Introductions:

- I noticed photos of children around the centre…tell me about those?

- Let’s look at some of the photos that I’ve seen around the centre

- Who takes the photos?

- Why do you think they do that?

- Can anybody guess what the writing says?

- What questions do teachers ask when they look at your pictures with you?

Let’s pretend that you are the teachers and we’ll look at some photos.

- If you were the teacher, what questions would you ask?

- What do you think the children would say?

Do you think it is important that teachers ask kids questions about what they do? Why?
Appendix I
Parent Interview Questions

Name of Parent: Language spoken at home:
Name of Child: Location of Interview:
Age of Child: Date of Interview:
How long at centre:

PARENT INTERVIEW QUESTIONS – INITIAL INTERVIEW

1. What are some of your child’s favourite activities at the child care centre?

2. What are some examples of things you think your child has learned while participating in play activities at XYZ child care centre?

3. How do you find out about what your child does during the day at the centre? (Does child tell you about her experiences? Do you talk with the ECE about the child’s day?)

4. Pedagogical documentation refers to the process of documenting children’s activities using photos, drawings, samples of their writing - even audio or video recordings – for the purposes of ‘making children’s learning visible’. Pedagogical documentation, (or ‘documentation’) can be seen in the form of bulletin board displays, individual child portfolios, etc.
   a. Have you noticed examples of ‘pedagogical documentation’ at your child’s centre?
   b. Have your child’s activities been featured in any of these documentation displays?
   c. What do you think are the benefits of this type of documentation?

5. If you have noticed documentation, do you think it has given you a better understanding of what your child is learning about or is interested in at the centre? Can you give some examples?

6. Have you ever shared examples of documentation with friends or family, e.g., showed them the pictures and/or the ECEs interpretation of the event?

7. Have you ever contributed in any way to the documentation displays, e.g. taken photos of your child’s activities at home to add to the display? Let’s discuss.

8. Do you have any other comments or questions to add to our discussion?
PARENT INTERVIEW QUESTIONS – FINAL INTERVIEW

Name of Parent: Language spoken at home:
Name of Child: Location of Interview:
Age of Child: Date of Interview:
How long at centre:

PARENT INTERVIEW QUESTIONS (Final Interview)

As we discussed in our first interview a few months ago, pedagogical documentation refers to the process of documenting children’s activities using photos, drawings, samples of their writing - even audio or video recordings – for the purposes of ‘making children’s learning visible’. Pedagogical documentation, (or ‘documentation’) can be seen in the form of bulletin board displays, individual child portfolios, etc. As a part of this study, early childhood educators (ECEs) were asked to involve children in the construction of documentation asking them to reflect on photos that were taken of their work and including what the children said while they reflected on the photos.

9. Over the past few months, have you noticed examples of this co-constructed documentation at your child’s centre?
10. Have your child’s activities been featured in any of these co-constructed documentation displays?
11. In your opinion, what value is there in doing this type of co-constructed documentation? For the child, for the ECEs, for the parents?
12. Does documentation affect your communication/relationships/engagement with your child and with the ECEs at the centre? How?
13. Do any obstacles get in the way of you being able to look at or access documentation displays at the centre?
14. How can the centre address these obstacles?
15. Is there anything that I haven’t asked you about that I should have?

Thank you for your time and valuable input!
Appendix J

Sample Script for Early Childhood Educator for Child Assent

Sample script for Early Childhood Educator to use when seeking assent from children participating in the research study entitled:

*Examining co-construction of pedagogical documentation by children and educators in early learning environments*

ECE to child: “*We are going to be talking about some of the things we’ve been doing the past couple of days. We’ll even be looking at some photos of what we’ve done and we’ll talk about what we would like to do next. We are going to share out photos and what we write together with someone from the university who wants to know more about how we do things here. We’ll be able to keep our copies here and we’ll make an extra copy for her. Are you OK with sharing this with her?*”