TEACHER LEARNING MADE VISIBLE:
COLLABORATION AND THE STUDY OF PEDAGOGICAL DOCUMENTATION
IN TWO CHILDCARE CENTRES

by

Alice Cho Yee Wong

A thesis submitted in conformity with the requirements
for the degree of Doctor of Philosophy
Department of Curriculum, Teaching and Learning
Ontario Institute for Studies in Education of the
University of Toronto

© Copyright by Alice C.Y. Wong (2010)
TEACHER LEARNING MADE VISIBLE:
COLLABORATION AND THE STUDY OF PEDAGOGICAL DOCUMENTATION IN TWO CHILDCARE CENTRES

Doctor of Philosophy (2010)

Alice Cho Yee Wong
Department of Curriculum, Teaching, and Learning
University of Toronto

Abstract

Pedagogical documentation inspired by the early childhood schools of Reggio Emilia, Italy is a tool for teacher inquiry, learning, and development. Teachers systematically reflect upon artifacts that make visible children’s thinking, using for instance, digital photographs, quotations of children’s verbal thoughts, and teachers’ field notes. In two Reggio-inspired childcare centres in Toronto, Ontario, Canada, early childhood educators formed two teacher learning groups to study pedagogical documentation.

As participants studied these artifacts (i.e. documentation), an underlying question emerges: *What happens to teacher learning when early childhood educators form teacher learning groups to study pedagogical documentation in childcare centres?* From this question, participants collaborated throughout six to seven research meetings to discuss and reflect upon documentation that they created.

Portraiture research as a method of qualitative inquiry (Lawrence-Lightfoot, 1983; Lawrence-Lightfoot & Davis, 1997) offered a range of data collection methods used in this study, including videotaped research meetings, participants’ documentation work, open-ended group interview, and researcher’s field notes. These methods informed the portraiture research
and constructed a vivid, in-depth look at participants’ experiences in studying pedagogical documentation in teacher learning groups.

The results of this study are retold through two portraits focusing on the co-construction of teacher knowledge in teacher learning groups. Participants’ experiences such as deconstructing barriers to documentation practice, developing new documentation skills, critical self-reflection upon teacher practice, and emergent curriculum planning generated two rich portraits of teacher learning and development.

Essential themes, conclusions, and implications appear in the examination of the two portraits and are explored in the final chapter. The themes included: (1) Skills of documentation, (2) Teacher learning and, (3) Teacher collaboration. Overall, this research study exposed the questions and assumptions, process of inquires, and new teacher knowledges and practices developed by two groups of early childhood educators in this study.
Acknowledgements

I offer my heartfelt gratitude to my thesis supervisor, Dr. Mary Kooy, who in her wisdom, generosity, and sincerity has encouraged me to set my sights high and trust in my skills, talents, and research. Dr. Kooy has gone beyond any expectation one could hope for in a thesis supervisor. I am indebted to Dr. Kooy for her commitment to my success, which involved the limitless face-to-face meetings that always brought intellectual clarity and understanding and the countless hours of reviewing and revising my writing. Thank you Mary.

I am grateful to my committee members, Dr. Clare Kosnik, Dr. Janette Pelletier, and Dr. Brenda Fyfe for taking a strong interest in my research study and agreeing to sit on my thesis committee. Your comments and suggestions throughout this study have strengthened the quality and integrity of this research.

I am thankful to the director and the participants from the two childcare centres where this study took place. I am humbled by your trust in me and in our research meetings to promote life-long teacher learning and development. You were a pleasure to work with and the honour has been mine.

I give a big hug to my fellow ECE doctoral students at OISE whom I turned to when I needed to talk out ideas, generate synergy, and take a coffee break.

I cherish the relationships with my family, friends, and brothers and sisters in Christ. You kept me grounded and focused on the important things in life. I dedicate this dissertation to you.

Lastly, I received generous support from the Social Sciences and Humanities Research Council (SSHRC) (2009-2010).
# Table of Contents

Abstract ........................................................................................................................................ ii  
Acknowledgements ..................................................................................................................... iv  
Table of Contents ....................................................................................................................... v  
List of Tables ............................................................................................................................. viii  
List of Figures .......................................................................................................................... ix  
List of Appendices .................................................................................................................... x  

## CHAPTER ONE

**INTRODUCTION** .................................................................................................................... 1  
  Introduction and Research Topic ............................................................................................... 1  
  Research Problem .................................................................................................................. 7  
  Research Purpose .................................................................................................................. 13  
  Research Questions .............................................................................................................. 13  
  Significance of the Research ................................................................................................. 14  
  Terms and Definitions .......................................................................................................... 14  
  Chapter Overviews ............................................................................................................... 17

## CHAPTER TWO

**LITERATURE REVIEW** ........................................................................................................... 18  
  Inspirations from Reggio Emilia .......................................................................................... 18  
  Pedagogical Documentation ................................................................................................. 21  
    An overview .................................................................................................................... 21  
    An artifact ...................................................................................................................... 21  
    An interpretation ............................................................................................................ 23  
    A process (of shared reflection) ..................................................................................... 24  
  Social Theories of Learning ................................................................................................. 26  
    Social constructivism ...................................................................................................... 26  
    Dialogic learning ............................................................................................................ 27  
    Pedagogy of listening ..................................................................................................... 29  
    A communicative relationship ....................................................................................... 31  
  Teacher Development .......................................................................................................... 33  
    Teacher learning groups ................................................................................................. 33  
    Records of practice & protocols .................................................................................. 35  
    Pedagogical documentation: A tool for teacher development ..................................... 38  
  Chapter Summary ................................................................................................................ 39
CHAPTER THREE

METHODOLOGY

Research Questions
Participants and Context
Participants
Process of the Study
Data Collection
Videotaping
Participants’ documentation work
Informal interview
Field notes
Email correspondence
Data Analysis
Case study
Videotape analysis
Documentation content analysis
Written text analysis
Triangulation
Ethical Considerations
Chapter Outlook

CHAPTER FOUR

FINDINGS: WESTSIDE PRESCHOOL

Building Collaboration for Teacher Learning
Making eye contact: Meeting one
Deconstructing Barriers to Documentation
Is that allowed? : Meeting two
Quotations as thinking: Meeting three
Developing Praxis in Early Childhood Education
Interpreting data collaboratively: Meeting four
Connecting the pieces: Meeting five
Revisiting the panel: Meeting six
Next Steps for Teacher Learning: Group Interview
Summary Intent

CHAPTER FIVE

FINDINGS: NORTHVIEW PRESCHOOL

Building Collaboration for Teacher Learning
The race to move forward: Meeting one
Active listening is hard work: Meeting two
Deconstructing Barriers to Documentation
Reporting is not documenting: Meeting three
What parents want: Meeting four
List of Tables

Table 1: The Collaborative Assessment Conference Protocol ........................................ 48
Table 2: Informal Group Interview Questions .............................................................. 51
Table 3: Email Correspondence Questions .................................................................... 52
Table 4: Dialogue Map Excerpt (July, 2009) ................................................................. 53
Table 5: Comparison of Documentation Captions ......................................................... 69
List of Figures

Figure 1: A whole new world ----------------------------------------------- 61
Figure 2: Sandra’s documentation ------------------------------------------ 65
Figure 3: Angela’s documentation ------------------------------------------ 71
Figure 4: Loose photographs --------------------------------------------- 75
Figure 5: Angela & Sandra’s documentation -------------------------------- 78
Figure 6: Blueprint for documentation panel ----------------------------- 81
Figure 7: Angela and Sandra’s panel-in-progress -------------------------- 83
Figure 8: Completed documentation panel -------------------------------- 86
Figure 9: A whole new world --------------------------------------------- 94
Figure 10: Mabel’s documentation ----------------------------------------- 98
Figure 11: Noula’s documentation #1 ------------------------------------- 103
Figure 12: Noula’s documentation #2 ------------------------------------- 107
Figure 13: Agnes’ documentation #1 -------------------------------------- 111
Figure 14: Agnes’ documentation #2 -------------------------------------- 116
Figure 15: Angela & Sandra’s three documentation pieces ----------------- 118
List of Appendices

Page 162: Appendix A (Written consent form for parents of the children who were portrayed in the documentation published in this dissertation).

Page 163: Appendix B (Written consent form for participants of this study, explaining the research, and their rights and responsibilities as participants in this study).
CHAPTER ONE

INTRODUCTION

Teachers – like children and everyone else – feel the need to grow in their competencies; they want to transform experiences into thoughts, thoughts into reflections, and reflections into new thoughts and new actions (Malaguzzi, 1998, p. 73).

Introduction and Research Topic
The primary purpose of child care in Canada has been seen politically as the provision of care that supports the family in raising children, generally so that parents can be employed and thereby provide their children with food and shelter (Beach, Friendly, Ferns & Prabhu, 2008; OECD, 2004). Gradually, this conception of childcare has included a developmental perspective, focusing on fostering children’s physical, social, emotional and cognitive development (CRRU, n.d.). New understandings of brain development suggest that the early years of development, particularly from conception to age six, form the competencies and coping skills required for life (McCain & Mustard, 1999). Research also suggests that learning in the early years must be based on loving and secure relationships with primary caregivers who can provide rich experiences for play, exploration, and inquiry (Best Start Expert Panel on Early Learning, 2006; Bredekamp & Copple, 2009). Childcare teachers in Canada serve one in every three children between birth-to-five years old (Beach et. al., 2008). Given the importance of early learning, and the undeniable presence that childcare teachers play in children’s formative years, it is important that the childcare workforce is valued, supported, and growing professionally.

Yet being a childcare teacher in Canada is to also accept inclusion in an occupation that is fraught with issues of power and unrealized potential for professional empowerment (Kashin,
More than ninety-six percent of childcare teachers in Canada are women working with young children (Jacobs, 2000). Historical perceptions of childcare as babysitting or substitute mothering persist and childcare continues to represent an invisible occupation linked to the invisibility of what is perceived as women’s work – low paid, low status, taken-for-granted labour (Doherty et. al., 2000; Ferguson, 1994; Rust, 1993). Nation-wide initiatives to improve the professional standards, wages, and working conditions of childcare teachers are needed (Beach et al., 2004; Doherty et. al., 2000; UNICEF, 2008). In Ontario, the College of Early Childhood Educators (CECE) is a recently formed professional self-regulatory organization for early childhood educators to ensure quality and standards in the practice of early childhood education (CECE, 2007). Meanwhile, equally impactful and significant is to offer high-quality professional development that can empower childcare teachers to gain confidence in their own professionalism, and to develop the skills and knowledge to grow professionally and challenge perceived images of childcare as solely a provision of basic care.

The “non-professional” image of childcare teachers is further complicated by a varied and relatively low educational attainment among the childcare workforce. Unlike kindergarten teachers who also work with young children and have a standard four-or three-year degree that includes teacher training, there is no minimal level of training required to become a childcare teacher. Instead, staff training regulations vary by province, with some provinces requiring no post-secondary training among its teaching staff and others that require at least two-thirds of its teachers in childcare centres to have at least two-years in post-secondary early childhood training (OECD, 2004). The reality becomes an approximate fifteen percent of childcare teachers who have an educational level of a high-school diploma or less, and another ten-percent who have no specific training in early childhood education. Increasingly, most childcare teachers are holders
of a one-, two-, or three-year credential in early childhood education, but even so, most college training programs are intended to ensure a minimal level of competency and expect that life-long meaningful professional development will occur (Beach et. al, 2004; Doherty et. al, 2000; Goffin & Day, 1994). Professional development is critical to remedy this lack in education and training among the childcare workforce.

Current research and knowledge about professional development build on two decades of teacher research that urges teachers to become “reflective practitioners” (Cochran-Smith & Lytle, 1999; Schön, 1983, 1987). Much teacher knowledge remains tacit, unnamed, and because it is deeply embodied in everyday experiences, reflection or the conscious re-thinking of practice, enables teachers to make explicit what they know. Some of the most essential knowledge for teaching is embedded in teachers’ inner, somatic embodied way of knowing (Heshusius & Ballard, 1996) or teachers’ practical knowledge (Clandinin & Connelly, 2000; Cochran-Smith & Lytle, 1993; Richardson, 1994). Among childcare teachers, typical questions raised about pedagogy might include: What educational approach best suits our learning environment? How should I set up the classroom to foster learning and exploration? How can I engage children in problem solving? These are important questions that need to be asked and deeply reflected on to inform daily teaching decisions and curriculum development (Meier & Henderson, 2007).

Recent conceptions of professional development – often rooted in social constructivist and dialogic theory – suggest that knowledge develops socially through negotiation and co-construction (Bakhtin, 1986; Barnes, 1976; Berk & Winsler, 1995; Burbules, 1993; Lave & Wenger, 1991; Osterman & Kottkamp, 2004; Vygotsky, 1978; Wenger, 1998). Conventional tools for reflection, such as journals, narratives and other individualized work, locate reflective actions within individuals and aim to facilitate internal thinking about praxis (Clement &
Vandenberghe, 1999; Crockett, 2001; Snow-Gerono, 2004). Contemporary beliefs about professional development, on the other hand, emphasize locating reflective actions within communities of practices and aim to facilitate shared reflective inquiry about praxis (Osterman & Kottkamp, 2004; Wenger, 1998). These beliefs have given rise to various learning communities among elementary (Allen, 1999; Himley & Carini, 2000) and secondary (Clark, 2001; Kooy, 2006; Liberman & Miller, 2001) teachers.

Among childcare teachers, teacher learning communities remain uncommon. The realities of developing communities of practice among teachers remain challenged by conventional organization of time and resources for professional development (Slattery, 1995; Wien & Kirby-Smith, 1998). The constant and central mainstay for professional development is commonly known as the “one-shot workshop”. The structure of one-shot workshops frames teacher learning as a top-down, hierarchal and linear process. In Canada, over seventy percent of professional development for childcare teachers is in the form of one-shot workshops (Doherty et al., 2000). No evidence that carry-over into the classroom, teacher change, or school reform results (Fullan, 2003; Roach & Riley, 2006; Wilson & Berne, 1999). This lack of framework to support sustained reflective inquiry means that reflection and discussion about pedagogy often occurs instinctively when children nap, eat or engage in free play. However, reflection is more than just thinking on one’s feet. Rather, it is defined as sustained, intentional and systematic inquiry into what we know and how we act (Cochran-Smith & Lytle, 1993; Dewey, 1938; Stenhouse, 1981).

Many childcare teachers in Canada have recently become inspired by the Reggio Emilia approach to educating young children. Emerging from the municipally funded early childhood institutions of Reggio Emilia, Italy, the Reggio Emilia approach is grounded in a holistic, arts-based, social constructivist approach to educating young children. Its philosophical image of the
child as a powerful competent protagonist of his or her own learning underpins everything that teachers do in Reggio Emilia (Robertson, 2006a). Teaching is understood as a partnership with children, and among colleagues, parents and the community. The image of the teachers is always portrayed alongside a complementary image of the child as active learner (Edwards, 1998). Teachers listen very closely to children’s thinking and inquiries in order to guide and extend their learning. In this process, teachers change from teaching children to studying children, and through studying children, learning with children and with each other (Forman & Fyfe, 1998).

Over the past fifty years, the early childhood schools of Reggio Emilia have evolved their own distinctive and innovative set of philosophical and pedagogical assumptions to support children and teachers’ inquiries that are the impetus to teaching and learning (Edwards, Gandini & Forman, 1998). As such, “Reggio Emilia” schools can only exist in the municipality of Reggio Emilia. Formal, standardized training on the Reggio Emilia approach does not exist. The Reggio Emilia approach serves as a source of inspiration (New, 1993). According to Wien (2008), to be “Reggio-inspired” suggests that:

When we are inspired by what they have accomplished and try out a different practice (different to us) in our own cultures of schooling, we are not creating the Reggio approach in schools. We are working with the ideas and philosophies of Reggio Emilia as catalysts to rethinking our own practices. We are re-creating our own teaching and learning practices, using their ideas and practices as reference points and creating our own interpretations of these in our schools (p. 6).

Therefore, working with the Reggio Emilia approach means to interpret how this approach might add value to our current ways of teaching and learning in early childhood education. Interpreting the Reggio Emilia approach in our own educational settings is a primary means to further and deepen our understanding of this approach.

A key feature of the Reggio Emilia approach can be found in the practice of “documentation”, which can guide and enrich teacher reflection and inquiry. Documentation
aims to make visible the otherwise invisible learning processes by which children and teachers work together (Malaguzzi, 1998; Rinaldi, 2006). It may include collecting and organizing written observations, transcripts of children’s conversations, children’s work, still photographs and video recordings that illustrate a process, all of which can be used to congeal teachers’ interpretations of children’s thinking into a tangible artifact (i.e. documentation). Including a reflective text is also very significant to making visible children’s thinking. For instance, a single drawing by a child would not be considered documentation. However, written text or an edited videotape of the child illustrating the drawing process would be considered pedagogical documentation (Forman & Fyfe, 1998). In Canada and the United States, Dahlberg, Moss & Pence (1999) were the first to use the phrase “pedagogical documentation” to describe the process of making pedagogical practice visible.

Making visible children’s thinking enables documentation to become an instrument of exchange and communication (Kocher, 2004; Rinaldi, 2006). On the surface, pedagogical documentation may appear to be a display of what children do, thinking and feeling in school (Wien, 2008). However, a closer look shows that documentation aims to explain and invite critical reflection and discussion about the documented experience. Often, selections are taken from ongoing documentation and organized into visible formats such as panels, slide shows, books or videos to illustrate the process of children’s thinking through “ordinary moments” as well as through long-term projects (Malaguzzi, 1998; Strozzi, 2001). Teachers in Reggio Emilia pay careful attention to the aesthetic design and display of documentation to invite and make possible a public sharing and discussion about the pedagogical work.

Reflective inquiry into pedagogical documentation is done both individually and collaboratively among colleagues (Dahlberg, Moss & Pence, 1999; Malaguzzi, 1998).
Nevertheless, teachers in Reggio Emilia strongly believe that professional growth comes partly through individual reflection but in a much richer way through open dialogue with others (Malaguzzi, 1998). Teachers in Reggio Emilia often use the phase “Io chi siamo” (I am who we are) (Rankin, 1998, p. 219) to express the idea that it is within a community of learners that teachers can offer their best thinking – stimulating something new and unexpected – for richer discussion and interpretation. The focus is on collective understanding, which requires constant comparison, discussion and modification of practice to make possible a quality of learning that is quite different from individual learning (Krechevsky & Mardell, 2001). In this community of practice in Reggio Emilia, teachers are dedicated to developing and sustaining “interactive collegial relationships” (Rinaldi, 2006).

Significantly, pedagogical documentation inspired by the Reggio Emilia approach offers a new tool into the arena of shared reflective practice in early childhood education. Especially in Canada where teacher learning communities among childcare teachers remain uncommon, I wonder about the potential of pedagogical documentation to cultivate learning communities among childcare teachers. I also wonder about the processes and complexities of forming teacher learning communities. To that end, what is the potential impact of pedagogical documentation on teacher learning and development?

**Research Problem**

Canadian and American interest in Reggio Emilia began to grow in the early 1990s, inspired mainly by the travelling exhibition “The Hundred Languages of Children”. The exhibit, which documents and tells the story of their educational adventure, is accompanied by conferences and workshops that allow for deeper dialogue with the ideas and practices of Reggio Emilia. Through
these interactions, various professional collaborations – and friendships – have formed between Reggio Emilia teachers and early childhood educators, teacher educators and researchers in Canada and the United States. This has led to the publication of pivotal texts that investigate how we in Canada, as in the United States have begun to interpret documentation work in our own early educational settings (see examples, Cadwell, 1997, 2001; Edwards, Gandini & Forman, 1998; Fraser & Gestwicki, 2001; Hendrick, 1997, 2004; Hill, Seidel, 2001a; Stremmel & Fu, 2005; Wien, 2008).

My own interpretation of the Reggio Emilia approach, and in particular, the practice of pedagogical documentation, began when I was a full-time childcare teacher in a Reggio-inspired childcare centre in Toronto, Canada. It was a calculated decision to work as a childcare teacher in a Reggio-inspired childcare centre because at the time, I was also studying part-time in the Master of Education program that specialized in early childhood education. I wanted to work with young children. I wanted to understand how young children acquired knowledge and to investigate effective teaching in early childhood education. Studying in the Masters program while working as a childcare teacher allowed me to explore these inquiries intellectually and practically in the university and childcare classroom respectively.

For three years, I worked as a childcare teacher while studying in the Master’s program. I learned about the Reggio Emilia approach early in my studies, and felt an immediate resonance with its views on the teaching and learning of young children. The practice of pedagogical documentation seemed to me effective and powerful for facilitating the liminal space between teaching and learning. I was determined to practice pedagogical documentation in my own work setting too, wondering what the tool of pedagogical documentation could mean for effective teaching and learning in Canadian early childhood settings. Later, my Master’s thesis would
focus on exploring the practice of pedagogical documentation, which interestingly, led me to pursue a doctoral degree on this topic immediately thereafter. I maintained strong relationships with many Reggio-inspired childcare centres in Ontario, providing professional development workshops and presenting regularly at Reggio-inspired conferences aimed towards childcare teachers.

However, my teaching career as a childcare teacher began like most teachers: Desperately trying to integrate what I had learned in school into my own classroom but realizing that I just wanted to survive the day, even if it meant putting aside how I wanted to teach and following “scripts for action” (Wien, 1995). In the first several months, I simply followed my co-teachers in starting each day with “circle-time”, then introducing an activity at ten o’clock, followed by the tasks of changing, feeding, and then napping, and finally, in the late afternoons, going outdoors to have free-play. At the time, I was already familiar with the Reggio Emilia approach, and in agreement with their ideas about early childhood education. However, at the end of each day, I was simply too tired and overwhelmed to reflect upon my pedagogy.

Fortunately, I passed the survival stage (Katz, 1997) where dismay nearly caused me to quit, and began to feel more secure about my capabilities as a teacher. The values, beliefs and knowledges that I had taken to heart and was continuing to develop in my part-time studies began to challenge my own mechanical prescriptive practices. With great conscious efforts, I started to be reflective by slowing down during the day to listen and observe what children in my class were doing and thinking. I began to record my observations, first on a notepad but later through photographs that aimed to capture the thinking evident in children (Wong, 2006). I also started to use my daily observations as data to inform my daily curriculum planning. For the first time since I began teaching, I felt that I knew more of what I was doing and why I was doing
what I was doing. My understandings of children were deepening, and as a teacher, I was learning and growing.

Sadly though, my professional growth and the feelings of self-satisfaction did not persist and soon reached a ceiling. I felt a “lone-rider” in my pursuits of teacher growth and development (Fullan & Hargreaves, 1996), meaning that I was not only alone in studying children and reflecting on teaching practice, but seemed to be the sole benefactor of engaging in these processes. I became skeptical, and rightly so, that such conditions of teacher isolation and solitude could support social constructivist learning and teaching among children and teachers. Naturally, the disconnect between our teaching values and practices, as well as our understandings of children grew over time, and as a result, we all suffered from a lack of collegial support that could potentially empower our image and skills as teaching professionals.

Beyond individual efforts to engage in teacher inquiry, other opportunities for professional development opportunities available to childcare teachers in Canada are discouraging. Childcare programs, unlike kindergarten, are not integrated into the formal public education system. As a result, childcare teachers do not benefit from stable funding and resources that allow them to participate in ongoing professional development (Adams & Poersh, 1997). The cost of attending professional development often shifts to childcare teachers themselves. Considering the low wages that childcare teachers earn, which according to Doherty and colleagues (2000) are comparable to a parking lot attendant whose main responsibility is to watch inanimate objects, it is unsurprising that a quarter of the childcare workforce in Canada did not participate in any form of professional development for the last twelve-month period. The most frequently cited reasons by childcare teachers include high costs of participation in professional development and the inability to obtain release time (Doherty et. al., 2000).
Being able to participate in professional development, however, does not ensure high-quality professional development opportunities that allow childcare teachers to engage in shared reflective inquiry. In Canada, less than twenty percent of professional development for childcare teachers occurs regularly, locally on-site, and in connection with daily pedagogical work (Doherty et. al., 2000). Instead, traditional “one-shot” workshops remain the most common form of professional development offered by organizations and professional associations such as unions or childcare agencies and committees (Beach, 1999; Doherty et. al, 2000). As the term one-shot workshop suggests, professional development is structured as a single occurrence, typically taking place over a lunch session or a half-or full-day event. It is generally topic-based, designed by an outside expert to deliver pre-packaged information for childcare teachers to acquire. In recent years, the most common topics addressed in one-shot workshops have included interventions with challenging behaviours, anti-bias curriculum, and interventions for speech and language problem (Doherty et. al., 2000).

For the most part, one-shot workshops perpetuate traditional, less effective approaches to teacher learning and development. The structure of “one-shot workshops” frames teacher learning as a top-down, hierarchal and linear process. Knowledge is assumed to be transferable, and as such, professional knowledge is typically “outside-in” (Cochran-Smith & Lytle, 1993; Freire, 2000; Kooy, 2006). Research overwhelmingly critiques one-shot workshops to be contrived and contextually insensitive to teachers’ pedagogical work with children (Wilson & Berne, 1999). This approach both implies and reinforces the deficit model in professional development, which perceives teachers as lacking in knowledge and in need of fixing (Clark & Florio-Ruane, 2001). Already, childcare teachers have to defend and develop their professional identities as teaching professionals deserving of professional development (Kashin, 2006). To
continue to rely on one-shot workshops holds us hostage to traditional approaches to professional development and prevents childcare teachers from seeing that knowledge building occurs from within local contexts and in learning communities.

Given that pedagogical documentation is a tool for childcare teachers to participate in shared reflective practice as professional development, childcare centres are in a vital position to become major stakeholders – bottom up, grassroots advocates – for developing communities of practice within their own childcare settings. Childcare teachers’ participation in professional development is determined, in part, by the availability and cost of participation, the availability to obtain adequate release time, and the level of encouragement and support that the childcare can extend (Doherty et. al., 2000). In communities of practice, where professional learning and development are cultivated and developed from within and among childcare teachers’ ongoing reflective practices, issues of time and cost are more manageable. The financial burden to hire outside experts for professional development, and to provide additional full- or half-day release time for teachers to attend workshops can be minimized. Most importantly, communities of practice guided by pedagogical documentation can support childcare teachers to build their own distinct and exclusive body of knowledge that will lead towards enhanced professionalism (Gertz, 1973; Whitebrook, 2002).

Already, in Canada, a growing number of regulated centre-based early childhood programs (i.e. childcare centres) encourage the use of documentation with their teaching staff (see examples, Callaghan, 2002, 2007; Fraser & Gestwicki, 2001; Phillips & Swanson, 2006; Webber & Coughlin, 2006; Wong, 2009). Across different childcare centres, interpretations of documentation work vary, as do the skills and confidence of childcare teachers doing Reggio-inspired documentation. Nevertheless, as childcare teachers continue to use pedagogical
documentation as a reference point to rethink teacher learning and development, a fundamental and primary question emerges, asking: What happens to teacher learning when early childhood educators form teacher learning groups to study pedagogical documentation in childcare settings? This question is timely and significant when studying two decades of teacher research, the Reggio Emilia approach, and more recent social theories of learning, which suggest that reflective practitioners – learning together with their colleagues – are more equipped and skilled to create responsive meaningful learning experiences with students and for themselves.

**Research Purpose**
The purpose of this research was to investigate (1) the effects of forming teaching learning groups to study pedagogical documentation in Canadian childcare contexts; and (2) the effects of social learning on inspiring new teacher action and practice among early childhood educators. The study involved two teacher learning groups, each with two and three childcare teachers respectively participating in the study of Reggio-inspired pedagogical documentation. The use of documentation situated and guided childcare teachers’ discussion and reflection on their pedagogical work with children. This study took place over the course of three months. The two teacher learning groups participated in determining the frequency, length and format of their meetings.

**Research Questions**
The primary research question asks: What happens to teacher learning when early childhood educators form teacher learning groups to study pedagogical documentation in childcare settings? A series of secondary questions are raised to look more closely at the above question:
• What is the role of teacher learning groups on participants’ learning?

• What is the role pedagogical documentation on participants’ learning?

• How do participants construct new teacher knowledge by studying pedagogical documentation in teacher learning groups?

• How does teacher knowledge developed in teacher learning groups translate into new teacher action and practice?

**Significance of the Research**

This study will highlight the increasing use of pedagogical documentation as a tool to support high-quality professional development for childcare teachers in social learning groups. It will offer a strong rationale grounded in research for childcare centres to adopt pedagogical documentation as a means to enrich teacher knowledge and praxis in other school contexts. This study will also present a Canadian interpretation of pedagogical documentation inspired by the Reggio Emilia approach, offering our knowledge and understandings of pedagogical documentation to an international community that has been influenced by the early educational practices in Reggio Emilia (e.g. Australia, United States, Japan, Sweden). Beyond early childhood education, this study has implications for understanding the effects of teacher learning in communities of practice, and how that may translate into improved student achievement and learning experiences for young children.

**Terms and Definitions**

The childcare profession is rapidly changing with an uncertain future filled with predictions and possibilities (Morrison, 2004). Professional development plays a significant role in steering the
course, empowering childcare teachers to become advocates for themselves as well as for children. To build on and contribute to the body of knowledge and research on teacher learning and development in early childhood education, I define key terms that I use throughout this study. The terms are explained below:

**Early childhood education** refers to the education of young children, particularly from conception to age six, which are considered as children’s most critical and formative years in early learning. Research and practice in early childhood education emphasize five main aspects of children’s learning, including social, physical, cognitive, creative and emotional development (Bredekamp & Copple, 2009).

**Childcare** refers to the provision of education and care for young children (CRRU; n.d.). In Canada, childcare services are categorized into regulated and unregulated service. Regulated childcare includes formally organized services provided in centre-based settings and home-based settings. Unregulated childcare service includes babysitters, nannies and parents’ helpers such as relatives or friends. Centre-based settings, commonly known as “childcare centres” make up the majority of regulated childcare services in Canada (Beach & Costigliola, 2001).

**Childcare teacher** refers to a person who has primary responsibility for a group of children in a childcare centre (Doherty et. al, 2000). Childcare teachers provide education and care typically for young children from birth-to-five years of old. Childcare teachers may or may not have teacher training in early childhood education, depending on the educational standards of each province in Canada. Their responsibilities include planning and implementing activities for children, and caring for their physical needs such as feeding and changing. In some childcare centres, before and after school programs are offered and childcare teachers serve children up to the age of twelve-years old.
Professional development in early childhood education refers to any course of study or activity designed to enrich teachers’ skill and knowledge specific to the field, and undertaken by those already working in the field (Beach, 1999). Professional development can take the form of a conference, workshop, credit course, non-credit course, or other in-service activities. In this paper, the term is used interchangeably with teacher development.

Teacher learning in early childhood education refers to the process of constructing new knowledges and skills relevant to childcare teachers’ work with young children. The term is used interchangeably with professional learning. Ideally, professional development opportunities will lead to teacher learning and enriched teacher action and practice.

Teacher Learning Groups consists of more two or more teachers who share a common practice or conditions that are important to each other (e.g. teaching) (Wenger, 1998). They meet regularly to co-construct teacher knowledge and skills that can be used in action and developed into forms that are acceptable within each learning group (Edwards, 2000). Effective teacher learning groups will facilitate teacher learning.

Pedagogical documentation is the practice of making visible children’s thinking through attentive systematic observation, recording, and reflection of children’s actions. Pedagogical documentation is understood as a process and an important content in that process (Dahlberg et. al., 1999). The content refers to the documentation that makes visible thinking. The process refers to the individual and collaborative study of documentation to understand teaching and learning. Pedagogical documentation is a key element of the Reggio Emilia approach to early childhood education.
Chapter Overviews

This chapter introduced the research topic, problem and purpose. The research question – what happens to teacher learning when early childhood educators form teacher learning groups to study pedagogical documentation in childcare settings? – and a series of secondary questions were raised to guide the research study.

Chapter Two examines the literature and underlying theoretical frameworks of this study, which bring together the principles and practices of the Reggio Emilia approach (particularly pedagogical documentation), the social theories of learning, and reflective inquiry in teacher development.

Chapter Three introduces portraiture research as a method of qualitative inquiry in this study. The research context, participants, and the process of the study are also introduced in this chapter. I discuss the methods of data collection and analysis used, including videotaped research meetings, documentation work, and informal interviews.

Chapters Four and Five report on the experiences of teachers in the two teacher learning groups. Findings are presented in a case study format, with a chapter dedicated to discussing each teacher learning group.

Chapter Six examines the significance of the research findings – What is to be learned from this study? I address the implications of this study, its limitations, and directions for future research.
CHAPTER TWO

LITERATURE REVIEW

Inspirations from Reggio Emilia

Shortly after the Second World War, parents in a small village near Reggio Emilia, Italy were washing pieces of brick left behind from the devastations of the war. They wanted to build a school for young children, not just any ordinary school, but a school where children could acquire the skills of critical thinking and collaboration, essential to rebuilding and ensuring a democratic society (Kocher, 2004).

Loris Malaguzzi (1920-1994), a young teacher at the time, was amazed by this idea, and rushed there on his bike to find that it was really happening. The people of the village had decided that the money to build the school would come from the sale of an abandoned war tank, a few trucks and some horses left behind from the retreating Germans. A farmer had also donated the land. Malaguzzi (1998) says to the women, “I am a teacher”. The women reply, “Good. If that is true, come work with us” (p.50).

Within eight months, the school for young children was built and run by parents. Other parent-run schools also emerged, raising support to establish secular schools for young children. Historically in Italy, all publicly supported schools for young children were governed by the Catholic Church and taught by nuns. In 1967, after many years of political struggle and debate, all parent-run schools came under the administration of the municipality of Reggio Emilia to receive public funding.

This provides a backdrop of the now world-renowned municipally funded early childhood schools of Reggio Emilia, founded by Loris Malaguzzi working together with other educators, parents, and citizens. At present (2000), there are twenty-two preprimary schools
(three-to-six years old) and thirteen infant-toddler centres (three-months to three-years old) in Reggio Emilia. This system has evolved its own distinctive and innovative set of ideals and practices, which taken as a whole is called the Reggio Emilia approach (Edwards, Gandini & Forman, 1998).

A community-based participation model exists formally within the network of educational services in the Reggio Municipal Administration to promote strong interaction and communication among teachers, parents, and community. They have a responsibility not only to contribute to the running of the school but also to serve as a powerful force in defending the rights of young children (Spaggiari, 1998).

This civic responsibility extends beyond the boundaries of Reggio Emilia. Carlina Rinaldi, former director of the schools in Reggio Emilia, and now executive consultant for Reggio Children manages the pedagogical and cultural exchange initiatives between the schools of Reggio Emilia and a large number of teachers and researchers from all over the world. The purpose of these interactions is to stimulate open and democratic dialogue about issues important to the education of young children.

Canadian and American interest in Reggio Emilia began in the late 1980’s, when the traveling exhibition, “The Hundred Languages of Children” was hosted in San Francisco, United States (NAREA, n.d.). The exhibit documents and tells the story of the educational adventure of the schools in Reggio Emilia. Conferences, workshops, and study tours to the schools of Reggio Emilia are organized by Reggio Children to generate ongoing and deeper dialogue with the Approach.

American and Italian educators have also collaborated on an edited book about the schools of Reggio Emilia called “The Hundred Languages of Children: The Reggio Emilia

In Canada, the practice of documentation by teachers in the schools of Reggio Emilia has stimulated much discussion about teacher learning and development in early childhood education. We ask how documentation serves as a pivotal tool for understanding teaching and learning in the schools of Reggio Emilia. More importantly we ask, what documentation can mean for childcare and other early childhood settings in Canada, and internationally (Callaghan, 2002; Catapano, 2004; Goldberg & Smith, 1997; Wong, 2009).

I examine the practice of documentation more closely in this chapter. Gunilla Dahlberg (in Dahlberg et. al., 1999) created the term “pedagogical documentation” to describe and distinguish the kind of documentation practiced in the schools of Reggio Emilia. Documentation of young children is not child-observation, as typically practiced in cognitive child psychology. Pedagogical documentation has a completely different purpose and consists of several key elements (i.e. artifact, interpretation, and reflection), which I will discuss shortly.

In this chapter, I also review the literature on social theories of learning (i.e. social constructivism, dialogic learning, pedagogy of listening, and a communicative relationship) and teacher development (i.e. teacher learning groups, records of practice and protocols, and professional development). These theoretical and conceptual frameworks intersect with the practice of pedagogical documentation.
Pedagogical Documentation

An overview

These philosophical ideals of collaboration, dialogue, and democracy permeate through all aspects of the educational experience in the schools of Reggio Emilia. Pedagogical documentation also emerges from within this historical socio-cultural context of promoting a reflective and democratic pedagogical practice in early childhood education. Early in their history, teachers in Reggio Emilia realized that systematically documenting the processes and results of their work with children would serve three key functions. It provided (Edwards, Gandini & Forman, 1998):

1) children with a concrete and visible memory of what they had said and done in order to serve as a jumping-off point of ensuing steps to learning.

2) teachers with a tool for research and a key to continuous improvement and renewal; and

3) parents and the public with detailed information about what happens in the schools and serves as a means of eliciting their reactions and support. (p. 10)

Pedagogical documentation makes learning experiences visible and thus, open to the possibilities of interpretations and multiple dialogues among children, adults, parents and other pedagogues for enriching pedagogy. To comprehend the rich layers of philosophical and pedagogical assumptions and practices embedded in documentation, I explain it in three parts, namely, pedagogical documentation as an artifact, an interpretation, and a shared process of reflection.

An artifact

Pedagogical documentation is an artifact, which records what the children are saying and doing, the work of the children, and how we as teachers relate to the children and their work (Dahlberg
et. al., 1999). We use a variety of materials to capture a pedagogical encounter – an educational process (i.e. teaching) interacting with the learning processes of children (Rinaldi, 2001). The materials can include, anecdotal observations, children’s work, photographs that illustrate a process, audio and videotaped recordings, and children’s voiced ideas. These materials have the potential to inform, whether or not they do depends on how they are used (Dewey, 1934; Eisner, 1995).

Showing a single drawing by a child would not suffice as pedagogical documentation, but teachers organizing a set of redrawn portions to plot the development of the final drawing would be considered pedagogical documentation (Forman & Fyfe, 1998). A teacher’s reflective commentary is also an integral part of pedagogical documentation (Gandini & Goldhaber, 2001). Teachers are responsible for observing, recording and collecting, and organizing data to create pedagogical documentation.

Often, selections are taken from ongoing documentation and organized into panels and publications (e.g. The Diary of Laura, 2008 by C. Edwards & C. Rinaldi) to make visible children’s thinking and learning processes through the unfolding of a project or an “ordinary moment” during the day. In the schools of Reggio Emilia, documentation panels cover the walls throughout the schools as if they were a second skin (Strozzi, 2001). Over the years, the rich documentation produced by teachers in Reggio Emilia have developed into a professional art form that is pedagogically satisfying but also aesthetically appealing.

We must then be mindful not to misinterpret pedagogical documentation as creating beautiful panels and displays, but understand that pedagogical documentation always aims to explain, not to display (Cadwell, 1997, 2003; Forman & Fyfe, 1998; Wong, 2006). Documentation tries to raise questions about children’s thinking and teaching strategies (Forman

**An interpretation**

As such, pedagogical documentation is also not a direct representation of what children say and do. Rather, it is an interpretation of close, keen observation and attentive listening to children, whose thinking, saying and acting that we are trying to document (Dewey, 1934). We cannot and do not claim “objectivity” or “truth” of what children say and do, but understand that pedagogical documentation offers one of many interpretations of children’s stories (Cannella, 1997; Dahlberg et. al., 1999; Mac Naughton, 2005). There is never just one interpretation, but offering one interpretation provokes others to deliberate other interpretations.

Therefore, we are participant-observers in the co-constructing and co-producing of these stories with children (Robertson, 2006a, 2006b). We participate in choosing the many possible uncertainties and perspectives, and dare to see the ambiguities (Rinaldi, 2006). Our intention as documenters is to construct a shared understanding of children interacting with the environment, of entering into relationship with other adults and children, and of constructing their knowledge (Gandini & Goldhaber, 2001).

The very act of documenting causes teachers to slow down and observe, and appreciate the deeper the meaning and value of a learning experience (Goldberg & Smith, 1997). Simona, a teacher in Reggio Emilia describes documenting as being able to understand the reasons why you do things and gives you a greater deal of awareness: “You are aware, and as a result you have to make choices, therefore you have to learn to make choices. So you keep going on and the
experiences begin to take shape” (Gambetti, 2001, p. 120). Practicing pedagogical documentation changes teachers’ understanding of what goes on in the classroom.

In the schools of Reggio Emilia, teachers benefit from the support of an atelierista and pedagogista to enrich their documentation practice and teacher development. Every school has an atelierista who specializes in art education. She/he works to cultivate the use of visual languages as a construction of thoughts and feeling among children and teachers (Vecchi, 1998). In doing so, the possibility to be involved in ongoing process of communication and reflection on documented experiences can produce richer understandings of learning.

A pedagogista on the other hand works with teachers in two to three schools to scaffold deeper reflection and understanding of their documentation work (Filippini, 1998). A pedagogista is similar to our American/Canadian understanding of a ‘curriculum specialist’. In the schools of Reggio Emilia, these two roles are a significant part of the systems of relations that support the professional development of teachers in Reggio Emilia.

A process (of shared reflection)

The process in which teachers use that material to reflect upon the pedagogical work in a systematic and democratic way is the other important feature of pedagogical documentation (Dahlberg et. al., 1999; Gandini & Goldhaber, 2001; Hill, Sremmel & Fu, 2006). Documentation is concrete, and a tangible record of practice that teachers can take to colleagues for group reflection and discussion. Also, because pedagogical documentation is a tangible artifact, it offers teachers a unique opportunity to listen again and to see again (Rinaldi, 1998). Documentation “in process” is enacted and interpreted during teacher research, not simply at the end (Rinaldi, 2006).
When teachers share common problems in the study of documentation, they facilitate the alignment of behaviours and a modification of personal theories (Malaguzzi, 1998). Teachers compare, challenge and regroup ideas. They move from egocentric first-person perspective taking to second and third-person perspective taking that takes into account cross-ethnic and multi-ethnic knowledge(s) (Dahlberg & Moss, 2005; Heshusius, 1994; Hyun, 2006). According to Brookfield (1995), being able to view one’s own practice through another’s eyes is a powerful trigger to becoming a more critical practitioner.

Using pedagogical documentation as the basis for reflection, teachers can also (re)verify, (re)construct, (re)interpret and revise their teacher practice systematically and purposefully. Collectively, they take responsibility for making meanings and coming to a common understanding about what is going on in the classroom …and subsequently, how to proceed next (Dahlberg et. al., 1999). As teachers work together to sustain children’s learning, they too learn (to teach) from the children’s own learning as well as from each other (Rinaldi, 1998, Sarason, 1990).

Teachers practicing pedagogical documentation essentially advocate for young children and for themselves, transgressing traditions and rethinking what it means to teach and learn in early childhood education (Dahlberg et. al., 1999). Beyond using pedagogical documentation as a tool for inquiry, teachers develop “a sensitivity to knowledge” (Rinaldi, 2001). Teacher inquiry becomes “a stance” (Crochan-Smith & Lytle, 2001). Together with children and with their colleagues, teachers become co-producers of knowledge. They become reflective teachers.
Social Theories of Learning

Social constructivism

Reflective practice of teaching stands on a well-defined theory of knowledge, namely social constructivism as found in Dewey (1910, 1938), Vygotsky (1978, 1986), Bakhtin (1986), Barnes (1986), Bruner (1986), and Wenger (1998). Social constructivism holds that knowledge is gradually constructed as we come to understand the world around us in relation to other people and, the way they understand the world (Vygotsky, 1978, 1986). Our engagement in social participation is the fundamental process in which we learn and become who we are (Bruner, 1986; Dewey, 1938; Wenger, 1998).

Social constructivism places learning in the context of our lived experiences. We draw on and reflect upon what we know. Through our ongoing experiences, we also construct new knowledges. Furthermore, in light of new experiences, we also continually modify, shape, and construct knowledge with others (Bahktin, 1986; Dewey, 1938; Vygotsky, 1978, 1986). Clearly, learning is an active process involving the learner, who makes sense of what goes on around them, and their part in it.

For teachers, learning and development implies the intentional, systematic reflection upon the experiences of everyday life in the classroom (i.e. teacher practice) (Crochan-Smith, 1993, 2001; Dewey, 1916, 1938; Richardson, 1994, 1996; Schön, 1983). Teacher practice involves the complementary processes of doing and thinking (Dewey, 1938). It involves both acting and knowing (Wenger, 1998). Wenger (1998) warns against seeing practice as falling on one side of the traditional dichotomy that divides acting from knowing. New understandings emerge from the interplay between doing and thinking / acting and knowing.
Understanding means being able to develop an interpretive “theory” – a narration that gives meaning to events and objects of the world (Rinaldi, 2001). Theory becomes concrete and meaningful when it deals with problems that emerge from the practice of education and that can be solved by educators (Dewey, 1938; Freire, 2000; Malaguzzi, 1998). At times, practice may even be allowed some possibility of precedence (Malaguzzi, 1998). Piaget (1962) warned that the errors and ills of pedagogy came from the lack of balance between theory and social application.

Subsequently, our theories are provisional, offering a satisfactory explanation that can always be continuously reworked (Rinaldi, 2006). Osterman & Kottkamp (2004) caution that without the opportunity to revisit theories, teachers are at risk of jumping to conclusions, accepting assumptions as facts, or becoming selective in their observation and reflection process. Furthermore, we are more susceptible to following blind sequences of actions (McLaughlin & Zarrow, 2001; Postman & Wei, 1969; Stokes, 2001; Wenger, 1998)

Teachers need a space to gain understanding to the competing theories of teaching and learning that they encounter (Schön, 1983). They need opportunities to talk. A social constructivist framework tells us that knowledge is never verifiable through observation and individual reflection alone, but rather gains clarity through a negotiated analysis of practice (Forman & Fyfe, 1998). Knowledge and new understandings are constructed through our social interactions with others (Vygotsky, 1978, 1986).

**Dialogic learning**

A non-constructivist view of dialogic learning assumes dialogue as a means to a definite, predetermined end point. For instance, Plato declared that dialogue is “the rational path to knowledge and the highest form of teaching” (in Burbules, 1993, p. 4). Modernists claim that
one truth to be sought via the dialogic processes. This teleological view of dialogue gives no significance to the processes of negotiation and shared inquiry. It contradicts the possibility of dialogue as a means to open and democratic communication (Dahlberg et. al., 1999; Dahlberg & Moss, 2005; Freire, 2000; Rinaldi, 2006). Evidently, this research study refutes this unidirectional and closed-ended view of dialogic learning.

Instead, Freire (2000) highlights multiple truths, and that dialogue is surely a means to investigate, negotiate, and develop deeper understandings about these truths. Dialogic learning depends on multiple voices, each stemming from the voices that came before and blending with the voices already in place (Bakhtin, 1986; Dewey, 1910,1938). Dialogic inquiry is an activity directed toward discovery and new understandings, where participants question, analyze and critique the pedagogical experience (Burbules, 1993; Cavasos, 2001). It stands to improve the knowledge, insight, or sensitivity of participants who participate in dialogue with each other. In this sense, dialogic learning promotes the social construction of knowledge, and supports a non-authoritarian conception of teacher learning and development.

Dialogic learning is discourse-driven. Teachers talk into clarifications, understandings and decisions that guide them into making sense of the world in which they live as well as their part in it. Often, I do not know what I think until I say it (Barnes, 1976): It is a way of sorting out one’s thoughts, a mode of organization perception and action (Bruner, 1986; Grimshaw, 1989; Vygotsky, 1978). Through dialogue, teachers gain a greater awareness and control over their own mental activities that direct their actions (Hyun, 2006; Reiber & Robinson, 2004; Vygotsky, 1978). “Exploratory talk”, coined by Barnes (1976, 1990), expresses this progression of understanding through teacher talk from tacit to explicit knowledge. For example, instead of
saying, “The children seem to enjoy the activity”, we say, “The children enjoy watching the birds without being noticed” (Forman & Fyfe, 1998, p. 247)

Surely, discourse is more than “talking”, which Cavasos (2001) differentiates as anecdotal stories shared by teachers in informal contexts for the purposes of sharing frustration, joy and information. Instead, Forman & Fyfe (1998) propose, discourse is a kind of dialogue that suggests an intelligent pattern of thoughts that is worthy of study. To engage in dialogic learning is to participate in a deep desire to make sense of each others’ words. We reflect on, struggle earnestly to understand what is being said. In dialogue, teachers constructively confront each other, experience conflict, and seek footing in a constant shift in perspectives to construct new meanings and new understandings (Forman & Fyfe, 1998).

Alternatively, dialogic learning sometimes calls on the deconstruction of teachers’ talk about their daily pedagogical work. The word *deconstruction* is made of two parts: *de* implies reversal or removal, while *construction* means to put together. To deconstruct something is to take it apart (Mac Naughton, 2005). Lenz Taguchi’s (2000) notion of “deconstructive talk” describes teachers who question the meaning of things that are usually not questioned. They look for assumptions, false premises, misapplication, ambiguities and differences in communicative content. When teachers develop a habit of question their certainties, “they leave behind an isolated, silent mode of working that leaves no traces” (Malaguzzi, 1998, p. 69). Instead, they must discovery ways to communicate and document children’s evolving experiences at school.

**Pedagogy of listening**

We are social beings who desire to share our theories about the world, and at the same time, have our theories heard. This need to be heard is most evident among children who take immense pleasure in talking with adults and having adults listen back. But as adults, teachers, and above
all, social beings, we also want others to listen to our ideas and theories. Listening legitimizes us, gives us visibility, and affirms the development of our ideas and thoughts (Rinaldi, 2001). The communicative act that takes place through listening produces meanings and reciprocal modifications that enrich all the participants in this mutual exchange (Bahktin, 1986, Dahlberg & Moss, 2005; Rinaldi, 2006).

The metaphor “pedagogy of listening” comes from Reggio Emilia, highlighting the importance of “listening” as opposed to just “talking”, “explaining”, or “transmitting” (Dahlberg & Moss, 2005). This claim is premised on the belief that children possess their own theories, interpretations and questions, that they are protagonists in their own knowledge-building process. Edwards (1998) argues that we must not only believe this philosophical image of the child, but act in ways that persuade children to share this image. Thus, we need to listen to children, inviting ourselves to follow and enter into their active thinking and learning process.

Similarly, as teachers, if we aspire to the Reggio image of teachers as active learners, researchers, and partners in children’s learning, then we must also act in ways that promote and strengthen this image of the teacher. Earlier, drawing on Forman & Fyfe (1998), I defined teacher discourse as an intelligent pattern of thought worthy of study. Again, if this is true, then we have a duty to our colleagues and ourselves to listen to each other by participating in the process of understanding teachers’ thinking and learning. Even Reggio educators comment that the learning processes of teachers are less visible …but they are by no means less important and fascinating (Rubizzi, 2001).

Listening to thinking, or thought, is about being able to hear the ideas and theories of others. We listen not just with our ears but also with all our senses. As such, pedagogical documentation is also a kind of listening. Listening carries the meaning of “intersubjectivity”,

that is, attempting to understand what someone has in mind (Readings, 1996; Rinaldi, 2006; Wien, 2008). We must be able to suspend our own judgments and preconceived ideas of what is correct, valid, or appropriate. It demands that we abandon ourselves “to the conviction that our understanding and our own being are but small parts of a broader, more integrated knowledge that holds the universe together” (Rinaldi, 2006, p. 65). We free ourselves to be amazed by what others have to offer (Duckworth, 1987).

Rinaldi (2006) also proposes that sharing our theories is a response to uncertainty, while listening to others’ theories is an act of respect for learning. She elaborates: “Listening that is generated by doubt, by uncertainty, which is not insecurity but, on the contrary, the security that every truth is such only if we aware of its limits and its possible ‘falsification’” (Rinaldi, 2006, p. 65). Listening does not produce answers, but aims to provoke each other to develop questions and deeper reflection upon our ideas and theories. Similar to the act of dialogue as a means to gain clarity of thought, all in all, dialogue and active listening are two sides of a coin that when practiced interchangeably, provokes thought and produces effective communication about pedagogical work (Bahktin, 1986; Dahlberg & Moss, 2005; Deuze & Guattar, 1999).

A communicative relationship

What sustains learning and development is rarely just the lively interchange of a topic – which incorporates both processes of dialogue and active listening – but a commitment to one’s communication group (Burbules, 1993). Social theories of learning are not simply an approach to teacher learning that we adopt. Rather, it depends on the establishment and maintenance of a particular kind of relationship among learners. This relationship is premised on the expectation of reciprocity – a mutual exchange that shares power and empowers those who participate in this exchange (Rinaldi, 2006; Wien, 2008).
Vygotsky’s (1978) zone of proximal development theory illustrates how a more capable peer can borrow the assistance of another learner to construct his/her own meaning and understanding (Berk & Winsler, 1995; Gallimore, Dalton & Tharp, 1986; Reiber & Robinson, 2004). The more capable peer empowers the other learner to move towards the next level of development. Vygotsky (1978, 1986) emphasizes that we are all learners, meaning that within different social contexts and groups, we can help others advance within the zone of proximal development, and also be assisted by others to advance in our own development: It is an interchangeable role. It is a reciprocal kind of learning.

Vygotsky (1978) also put much thought into the formation of learning groups, understanding that social learning requires levels of trust, respect, care and concern for one another (Krechevsky & Mardell, 2001). The commitment of learners does not precede a communicative relationship, but generally arises through a spirit of engagement (Burbules, 1993). Learners gradually open themselves to up to vulnerability, uncertainty and the possibilities for change (Zellermayer, 2001). We take risks. We change ourselves. We construct our own understandings, and change our own minds (Greene, 2001; Wertsch, 1985). We become invested in our own learning, as well as the learning of others, whose participation in this communicative relationship we are interdependent upon (Berk & Winsler, 1995; Burbules, 1993; Malaguzzi, 1998; Wenger, 1998).

As such, communication with others cannot be separated from the relationship that we gradually develop with others. As a communicative relationship develops and strengthens, so does the richness of teacher learning through communication (Clark, 2001; Rinaldi, 2006; Zellermayer, 2001). All in all, a social approach to teacher learning offers that teachers who participate in communicative relationships experience the power of these relationships to
transform them to become better practitioners and persons (Freire, 2000; hooks, 1994, 2003; Noddings, 2005; Palmer, 1997).

**Teacher Development**

Contemporary ideas about professional development continue to build on two decades of research that urge teachers to become “reflective practitioners” (Schön, 1983, 1987). Traditionally, teachers’ reflective practice is experienced as an individual isolated process. For instance, conventional tools for reflection, such as journals, narratives and other individualized work, locate reflective actions within individuals and aim to facilitate internal thinking about praxis (Clement & Vandenbergh, 1999; Crockett, 2001). However, in light of social theories of learning, reflective practice as a tool for teacher development is being re-conceptualized as a shared experience most effective when occurring in teacher groups over a sustained period of time (Borko, 2004; Clark, 2001; Dana & Yendol-Silva, 2003; Osterman & Kottkamp, 2004; Snow-Gerono, 2004; Wenger, 1998; Wilson & Berne, 1999).

The terms “teacher development” and “professional development” are used interchangeably in this research to describe an activity or a series of experiences designed to lead towards teacher learning (Greene, 2001). “Teacher learning”, according to Adler (2000), is understood as “a process of increasing participation in the practice of teaching, and through this participation, a process of becoming knowledgeable in and about teaching” (p. 37).

**Teacher learning groups**

Wenger (1998) popularized the term “communities of practice” to describe teachers who work collaboratively to reflect on pedagogical practice for professional learning and growth. Similarly, Clark (2001) established the name “teacher inquiry groups” to address structures for authentic
conversations about professional inquiry among teachers. Sometimes, the phrase “professional learning communities” is also used to depict teachers focusing together on teacher research (Dana & Yendol-Silva, 2003). For this study, I adopt a more generic term – Teacher learning groups – to describe two groups of several childcare teachers who meet regularly to study pedagogical documentation and discuss issues and problems of practice.

Teacher learning group enables a more flexible conception of how teachers may evolve their relationship, collaboration and learning over time. “Inquiry” implies a clear, specific pedagogical issue or problem that teachers will aim to resolve (Dewey, 1910). Similarly, “community” infers a shared sense of values, beliefs and practices (Sergiovanni, 1994; Wenger, 1998). However, Edwards (2000) highlights that not all groups develop into community of practice. Instead, based on the findings of her two-year research with several groups of childcare teachers, she concludes that it was necessary to wait to see what happens [to participants] over the next few years before going so far as to claim that a coherent community of practice had been created.

Teacher learning groups vary widely in structure, even though all aim to study pedagogical practice to improve student learning and teacher development. These differences reflect the particular needs and contexts that every learning group faces (Vesay, 2007). Depending on teacher interests, as well as the number of resources available, some teacher learning groups consist of two to three people, while others may be much larger. Some groups plan to meet weekly, while others meet less often, perhaps every six to eight weeks. Furthermore, some teacher learning groups prefer to meet during lunchtime, while others favour to meet after work or during the workday if participants of the group can arrange for release time from the classroom.
Whatever the structure of the teacher learning group, teachers and the researcher and/or facilitator should plan together to ensure reasonable ongoing participation (Clark, 2001; Vesay, 2007). Furthermore, participation in any form of professional development should also be voluntary. Fosnot (1989) and Jones (1993) believe that a prerequisite for teacher learning and development is a genuine desire and an openness to change. Catapano (2004) adds that in order for teachers to embrace the opportunity for collaboration, they must be at a point in their development to be seeking answers to their own questions.

As teacher learning groups mature over time, participants may take up the group’s coordination and facilitation themselves (Borko, 2004; Osterman & Kottkamp, 2004). Grossman, Wineburg and Woolworth (2001) encourage that while sustaining teacher learning groups is difficult and time consuming, teachers can collectively explore ways to prioritize this need for social learning. In due course, one indicator of success of a learning group can be measured by whether teachers continue their ongoing professional development without the presence of a researcher and/or facilitator (Catapano, 2004; Clark, 2001): Members and their ongoing contributions sustain the teacher learning group.

**Records of practice & protocols**

Using texts plays a critical role in forming and sustaining learning communities (Allen, 1999; Borko, 2004; Rust & Orland, 2001). Teacher learning groups that focus on the study of practice employ the use of texts, namely, records of practice. According to Clark (2001), good conversations demand good content – “something worth talking about” (p. 176). These may include instructional plans and assignments, videotape of lessons, and samples of student work, all of which serve to bring teachers’ classrooms into the professional development setting (Borko, 2004). Such records of practice also enable teachers to examine one another’s
instructional strategies and student learning, and to discuss ideas for improvement (Ball & Cohen, 1999, Little et. al., 2003).

Among teachers in elementary and secondary schools, the culture of using records of practice to support teacher development is established and well researched (Clark 2001; Crohan-Smith & Lytle, 1993, 2001; Liberman & Miller, 2001; Richardson, 1994, 1996). Mathematics teachers have formed various teacher learning groups to study records of practice to enhance student learning (Clark & Borko, 2004; Kasemi & Franke, 2004). English teachers have also formed teacher learning groups to study curriculum texts and video-tapings of classroom instruction to improve teaching (Thomas et. al., 1998). Among teachers of science and technology, teacher learning groups have also developed for similar educational purposes (Mundry, Stiles & Keely, 2009).

In comparison, the research in early childhood education examining teachers’ use of records of practice as a tool for teacher learning is limited (Hyun, 2006; Meier & Henderson, 2007). Allen’s (1999) edited book is one of the first to focus attention towards the use of records of practice in early childhood education as a tool for teacher learning and development. He explains that in the past, after children completed a drawing or a writing piece, teachers would either post it or ask children to save it for their portfolios. Teachers would not review children’s work again. By inviting teachers to form teacher learning groups to review, examine, and discuss children’s work, children’s work is moved to a more central and valued place in teachers’ practice (Allen, 1999; Blythe, Allen, & Powell, 2007).

A key aspect of the emerging research on studying student work among teachers is designing protocols that would guide teachers to systematically and collaboratively examine and reflect upon records of practice (Allen 1998; Blythe, Allen, & Powell, 2007; Himley & Carini,
2000; Jervis, 1998; McDonald, 2001). In his research, McDonald (2001) found that teachers lacked skillfulness in reading student work. As a result, teachers did not recognize the value of using student work to reflect collaboratively upon issues of teaching and student learning among colleagues. McDonald (2001) saw the protocols as a means to facilitate teachers’ study and discussion of student work.

The design of protocols varies, but they generally share several features. For instance, protocols are used to support the study of actual student work. Also, they invite conversation about the student work and the teaching associated with it. Finally, protocols encourage relatively unbound conversations (McDonald, 2001). Additionally, because protocols are used to facilitate and support teachers’ study of student work, well-developed protocols do not require elaborate training to use. Teachers should feel comfortable to adapt the use of any protocol to their local circumstance. It is important to remember that ultimately, protocols belong to members of the teacher learning group (McDonald, 2001).

Examples of protocols include, for instance, The Eileen Barton Protocol developed by the Annenberg Institute at Brown University. It consists of three simple questions to guide teachers’ study of student work, asking: “What do you see here? What do you not see? What questions do you have?” (McDonald, 2001, p. 214) Another example is The Collaborative Assessment Conference (Protocol) developed by Harvard Project Zero at Harvard University. It seeks to suspend judgment by guiding teachers to look at student work as rich data for enhancing understanding of thinking and learning processes rather than as an indicator of achievement (McDonald, 2001). In the United States, one group of early childhood educators known as the St. Louis-Reggio Collaborative (Cadwell, 2003) has adopted The Collaborative Assessment Conference (Protocol) into their study of pedagogical documentation.
In this research study, the Collaborative Assessment Conference (Protocol) is adopted to guide teachers’ study of documentation. A series of questions are designed to provoke critical thinking among teachers. The first set of questions provokes our perceptions, asking, “What do you see before you? What do your eyes and ears take in? Can you describe what you see without forming an opinion?” The second set of questions provokes our curiosity about the documentation, asking, “What questions does the documentation raise for you? What does it make you wonder about as you work with your perceptions?” Paulo Freire asserts, “Every question reveals a dissatisfaction with previous answers to previous questions. To inquire is to take on the curiosity of those who search” (in Seidel, 2001b p. 330). The protocol questions continue, progressing to sustain inquiry by provoking analysis, interpretation, and projection of the documentation being studied.

This intersection between the research on student work, protocols, and pedagogical documentation in the context of teacher development is phenomenal. One challenging task of practicing pedagogical documentation is that there are no prescribed formulas for reflecting upon and collaboratively analyzing the documentation with colleagues. Furthermore, the culture of research that exists in the schools of Reggio Emilia is still a new concept for teachers in Canadian and American early childhood contexts. Protocols are an additional tool for teachers teaching outside of Reggio Emilia to study pedagogical documentation, and to maximize the benefits of documentation as a powerful and effective tool for teacher learning and development.

**Pedagogical documentation: A tool for teacher development**

In many ways, the recent value given to children’s work has become the groundwork for accepting pedagogical documentation as a practical and effective tool to inquiring into children’s thinking and supporting teachers’ reflective practice (Gandini & Goldhaber, 2001). As discussed
earlier in this chapter, pedagogical documentation is an artifact that allows teachers to recall and revisit pedagogical practices. This view of pedagogical documentation aligns with mainstream use of records of practice, such as drawings, models or writings created by children in the classroom (Allen, 1998; Himley & Carini, 2000; Jervis, 1998).

As I also discussed, pedagogical documentation is more than an artifact, but a process of organizing and interpreting artifacts to create documentation that makes visible children’s thinking process. The creation of pedagogical documentation enables teachers to reflect collaboratively to discuss, negotiate, and co-construct new understandings about teaching and learning. Pedagogical documentation enables recursive layers of teacher reflection (Dahlberg et. al., 1999; Gandidi & Goldhaber, 2001; Rinaldi, 1998, 2006).

Allen (1999) observes that any piece of student work can support teacher inquiry and learning, but argues that the nature of the work determines the quality of the dialogue. Accordingly, it is this latter component of pedagogical documentation that offers new provocations and inspirations for teachers to incorporate pedagogical documentation into their daily practice, and to use documentation as a tool to assemble teachers for collaborative and sustained professional learning and development in their own early childhood settings.

Chapter Summary
This review explores the background and context of the Reggio Emilia approach, particularly the socio-historical influences that shape the philosophical and pedagogical assumptions practices, including pedagogical documentation. This review situates the practice of pedagogical documentation in social theories of learning and teacher development. The intersection of these three frameworks – pedagogical documentation, social theories of learning, and teacher
development – address innovative possibilities for teacher learning and development in early childhood education.
CHAPTER THREE

METHODOLOGY

Much educational research, including this research study, involves ongoing interactions between the researcher and her research participants. In this research study, I met regularly with two groups of early childhood educators respectively and facilitated a collaborative study of pedagogical documentation. Through our study of pedagogical documentation in teacher learning groups, I wanted to understand: What happens to teacher learning when early childhood educators form teacher learning groups to study pedagogical documentation in childcare settings? This research study aimed to record and convey – entirely and vividly – the shared experiences between participants and me, and more significantly, between participants themselves in their study of pedagogical documentation.

Portraiture research as a method of qualitative inquiry aims to capture the “richness, complexity, and social dimensionality of human experience in social and cultural context, conveying the perspectives of the people who are negotiating those experiences” (Lawrence-Lightfoot & Davis, 1997, p. 3). I adopted portraiture methodology to illustrate the processes of social interaction and learning among early childhood educators that are rarely seen or documented (Malone, Straka & Logan, 2000). Portraiture research blends art and science, enabling me to create research that encompassed aesthetic, as well as empirical and analytical dimensions (Lawrence-Lightfoot, 1983). I developed portraits of early childhood educators studying pedagogical documentation, actively participating in teacher dialogue and inquiry.

Portraiture has roots in ethnography, aiming to record detailed “thick descriptions” (Geertz, 1973) of participants’ interactions. Portraiture, like ethnography, also adopts of a range
of research techniques such as participant observation, interviewing, or use of written and non-written records to capture a comprehensive, multi-layered picture of how ordinary people in a particular setting make sense of the experience of their everyday lives (Eisenhart, 2001; Wolcott, 1997). However, while the ethnographer focuses on listening to the stories told by ordinary people, the portraitist focuses on listening for the stories in the lives of ordinary people (Lawrence-Lightfoot & Davis, 1997; Welty, 1983). The latter approach is a much more active and engaged position, where the portraitist searches for the story, seeks it out, and develops a convincing and authentic portrait using the above research tools to maintain authenticity and validity.

As a portraitist, I have a central and creative role in developing the portrait. I cannot claim “objectivity” because I know that my presence in the portrait is to define the focus and field of inquiry, navigate relationships with subjects, witness and interpret action, trace emergent themes and create the narrative (Lawrence-Lightfoot & Davis, 1997): I have an important role in shaping the story’s coherence. In my story telling, however, I avoided dominating or directing the drama or constructing the scenes. Instead, through my careful, systematic, and detailed description of human experience, I aimed to balance my voice and create a portrait that would be reflective of participants’ images, experiences and perspectives (Featherstone, 1989; Lawrence-Lightfoot & Davis, 1997).

For the purposes of this research, I entered into the lives of two groups of early childhood educators in Ontario, Canada, who voluntarily participated in this study to advance their practice of pedagogical documentation. I developed relationships with participants, participated in discourse, made an imprint with participants, and eventually, I left. On the one hand, this research study was an act of intervention: My actions interrupted the natural rhythms of daily life.
(Lawrence-Lightfoot & Davis, 1997). At the same time, I hoped that this intervention would instigate positive change; that is, this research study might lead to new, productive beliefs and practices in early childhood education. Therefore, I had an ethical responsibility to participants and to the heart of this methodology, to find the merit in the human interactions and experiences that I study. Lawrence-Lightfoot (1983) reminds us that schools are changing institutions and, recognitions of their goodness should reflect these transformations. There will always be ample evidence of imperfections, but as Lawrence-Lightfoot (1983) highlights, how people, cultures, and organizations negotiate these imperfections is central to the expression of goodness… that justifies and validates change.

This portraiture aimed to report and to inform, but equally, to provoke questioning, debate, and negotiations of early childhood assumptions, beliefs, images, and practices, for instance, the misguided image of early childhood educators as babysitters (Geertz, 1973; Lawrence-Lightfoot & Davis, 1997; Rinaldi, 2006). Intentionally, I created a written portraiture in a language that was narrative, dialogic, and enjoyable to read. The writing was also accompanied by images of the documentation that participants examine and discuss. As a whole, the portrait was developed to attract an audience beyond the walls of the academy to include practitioners, administrators, and advocates of young children.

**Research Questions**

The primary research question guiding this investigation of teacher learning and development in childcare settings asked: *What happens to teacher learning when early childhood educators’ form teacher learning groups to study pedagogical documentation in childcare settings?* Four
underlying questions were developed to examine more closely the main research question. These questions were:

- What is the role of teacher learning groups on participants’ learning?
- What is the role pedagogical documentation on participants’ learning?
- How do participants construct new teacher knowledge by studying pedagogical documentation in teacher learning groups?
- How does teacher knowledge developed in teacher learning groups translate into new teacher action and practice?

These questions emanated from a larger context of recent emphasis on social constructivist and emergent-orientated approaches to teaching and learning in early childhood education (Bredekamp & Copple, 2009; Hyun, 2006). Within this context, research investigation on the approaches to teacher learning and development that promote and sustain social constructivist and emergent-orientated curricula experiences needed to follow. The questions raised in this study were timely, and relevant to the issues in early childhood education today.

Participants and Context
This research took place with two groups of early childhood educators at two childcare centres in the Greater Toronto Area, Ontario, Canada respectively. The two centres were founded in 1994 and 1996. They are privately owned and offer infant, toddler and preschool childcare services. Full-day, half-day, and alternate day childcare programs are available to accommodate different families’ needs. Each centre serves approximately fifty children, and has a staff (full-time and part-time) of ten early childhood educators, a chef, and a supervisor.

A unique characteristic of these two childcare centres is that they draw on the principles and practices of the Reggio Emilia approach as a key source of inspiration for teaching and
learning. The childcare centres’ connection to the ideas and practices of the Reggio Emilia approach began in 2002, when Ms. Becka (pseudonym used), founder, co-owner, and director of these two childcare centres returned from a two-week Study Tour of the early childhood schools of Reggio Emilia and brought back her learning and ongoing interpretations of the Approach to her teachers. On the centres’ official website, they call themselves “Reggio-inspired”.

Teachers at the two Reggio-inspired childcare centres participate in regular staff professional development meetings, workshops, and conferences to deepen their understanding of the Reggio Emilia approach. Some teachers have a stronger knowledge of the Reggio Emilia approach, having learned about it through their studies and training to become an early childhood educators. Also, some teachers have worked at the centres for a longer period of time, and have had more opportunities to develop a stronger foundation through their own teaching practice. Newer teachers look upon these more experienced teachers to facilitate a “Reggio-inspired” kind of teaching in the classroom. This includes teaching concepts and practices such as pedagogical documentation as studied in this study.

Participants
Ms. Becka, the childcare director, selected and approached teachers she thought would be interested in participating in this research study. It was clearly communicated to teachers that participation was voluntary and that the decision to participate or not had no impact on their employment at the centre. Two teacher learning groups were formed, one group at each childcare centre. At the first childcare centre, which I called “Westside Preschool” (pseudonym used), two infant classroom teachers formed one group. At the other childcare centre, which I called “Northview Preschool” (pseudonym used), three teachers each from the infant, toddler and preschool classroom formed the second group.
Sandra (pseudonyms are used for all participants) is approximately thirty to forty years old, and has been a childcare teacher for almost twelve years. She has an early childhood diploma from a community college, and worked at two other childcare centres before coming to work at Westside Preschool. She has been at Westside Preschool for two years now. She decided to participate in this study because she wanted to increase her knowledge about pedagogical documentation. She first heard about the Reggio Emilia approach and the practice of pedagogical documentation in her diploma studies in early childhood education but her understanding of documentation developed only after arriving at Westside Preschool to teach in the preschool classroom. She tried to document on a daily basis, but realistically, she documented three-times a week. Sandra is now in the infant classroom and she tries to document everyday.

Angela is approximately twenty to thirty years old, and just recently earned her early childhood education diploma several months ago. She completed a student internship at Westside Preschool during her academic studies, and was invited by the childcare director and supervisor to work full-time at Westside Preschool upon graduation. Angela decided to participate in this study because she wanted to learn together about documentation with her co-teacher Sandra in the infant classroom. She was first introduced to the Reggio Emilia approach and pedagogical documentation during her studies in early childhood education. Similarly, Angela admitted, it was not until she started working at Westside Preschool that she really began to understand this Approach.

Agnes is approximately thirty to forty years old. She earned her early childhood education diploma four years ago, and thereafter, has taught at Northview Preschool. She teaches at Northview Preschool in the toddler classroom. Agnes decided to participate in this study because it seemed interesting. She first learned about the Reggio Emilia approach while studying
for her diploma in early childhood education. However, her understanding about the Approach really only began when she started teaching at Northview Preschool.

**Mabel** is approximately thirty to forty years old. She has been at Northview Preschool for two years, in which during this time, she earned her early childhood education diploma by attending evening school at a community college. Mabel decided to participate in this study because she was very interested in the practice of pedagogical documentation and wanted to learn more about it. She first learned about the Reggio Emilia approach through her colleagues at Northview Preschool and staff professional development meetings. Two months after this study was completed, Mabel resigned from Northview Preschool to pursue a Bachelor’s degree in early childhood education.

**Noula** is approximately forty years old and has an early childhood education diploma. She has taught at other childcare centres before teaching at Northview Preschool. It is her fifth year at Northview Preschool. Noula believed that participating in this study would help her improve her understanding of pedagogical documentation. She has had other opportunities to deepen her understanding of the ideas and practices of the Reggio Emilia approach through professional development workshops, visiting other Reggio-inspired childcare centres, and attending Reggio Emilia’s Hundred Languages Traveling Exhibit in Toronto in 2006. These professional development activities were all arranged by her employer at Northview Preschool.

**Process of the Study**
A total of six and seven weekly research meetings were conducted at Westside and Northview Preschool respectively. At each meeting, participants studied a piece of pedagogical documentation. In the first meeting, participants studied a documentation piece that I provided.
In subsequent meetings, participants each brought their own documentation for group discussion. A description of the documentation created by participants is provided in chapters four and five. One documentation piece was studied at each meeting, allowing abundant time for group discussion about pedagogical issues that emerged from participants’ study of the documentation.

The Collaborative Assessment Conference Protocol guided participants’ study of the documentation. First, participants would spend several minutes to read the documentation. Then, participants responded to five main questions asked in the Protocol (see Table 1). The questions are designed to guide participants to study the documentation as rich data for understanding children’s thinking and learning processes (Cadwell, 2003; McDonald, 2001).

<table>
<thead>
<tr>
<th>Slowing Down Thinking</th>
<th>Questions to Discuss…</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PERCEPTION</strong></td>
<td>What do you see before you? What do your eyes and ears take in? Can you describe what you see without forming an opinion?</td>
</tr>
<tr>
<td><strong>CURIOSITY</strong></td>
<td>What questions does the documentation raise for you? What does it make you wonder about as you work with your perceptions?</td>
</tr>
<tr>
<td><strong>ANALYSIS</strong></td>
<td>What choices has the documenter made about how to show the content? How do these choices support (or not) what is communicated to you?</td>
</tr>
<tr>
<td><strong>INTERPRETATION</strong></td>
<td>What do you think the documentation is attempting to show? What is made visible by it? What do you think the documenter is trying to understand?</td>
</tr>
<tr>
<td><strong>PROJECTIONS</strong></td>
<td>What meaning do you find in the documentation? What do your interpretations and discussions suggest for you and your colleagues?</td>
</tr>
</tbody>
</table>

Meetings were approximately one-hour long. At the end of the study, an informal group interview was conducted with participants in the two teacher learning groups, also about one-hour in length. Participants reflected and reported on their experiences studying pedagogical documentation in teacher learning groups. Four main open-ended interview questions were asked (see Table 2).
Throughout the research study, participants primarily saw me as a facilitator and a researcher. Jones (1993) describes facilitation as a voluntary relationship between participants and me, where they invite me to offer ways to promote and enhance their teacher learning. As the facilitator, I periodically asked open-ended questions to prompt deeper discussion and thinking, and encouraged and affirmed participants’ confidence and abilities in this study.

As a researcher, I mainly conducted participant-observation (Angrosino, 2005). I joined in on participants’ conversations, shared my own observations, and responded to participants’ questions when asked. I also kept the time and coordinated other logistics of our research meetings. I had and maintained a trusting professional relationship with participants, and also with the childcare director, supervisors, and other teachers at the childcare centre.

**Data Collection**

For data collection, I focused on participants’ dialogue and study of documentation in our weekly research meetings, using a case study approach. A case study approach included data gathering methods such as, videotaping of weekly meetings, an informal group interview, participants’ documentation work, and my field notes. The data sources of this study aimed to reflect the point of view of participants as well as the researcher. I hope that these points of view will provide a more comprehensive portrait of participants’ learning.

**Videotaping**

Using videotaping as a data collection method can record visual details of participants actions, gestures, and speech. For example, studying video material may help researchers know what people are doing, what they are saying, and significantly, how they are saying it by watching their body movement and tone of voice (Elderkin-Thompson & Waitzkin, 1999). I was mindful
that the limitation of videotaping was that it only collected a snapshot of participants’ experiences, and that the recorded material reflected a particular angle of the video camera. Events not captured on the video camera did not suggest that they did not occur; it simply meant that the video camera did not record it.

A video camera was placed three feet away from where participants and I sat around a table to discuss documentation. The video camera was turned on at the start of the meeting, and left to record on its own. A wide-angled camera lens allowed me to capture all participants without having to control the camera. When the meeting ended, the camera was turned off. The informal interview was also videotaped adopting the same procedures. Participants knew that their discussions were being videotaped, and that their faces and voices would appear on the video material.

**Participants’ documentation work**

I collected the documentation that participants presented. Some documentation pieces were photocopied because the originals were returned to the children’s portfolio or the classroom’s daily log. Also, due to the large-size of some documentation, such as Angela and Sandra’s documentation panel, the documentation was photographed and printed. I catalogued each documentation piece with the name of the documenter, the date it was created, and the date it was presented in our research meetings. Consent to collect and publish the documentation work was from the parents of the children portrayed in the documentation (see Appendix A).

**Informal interview**

I conducted a group interview instead of individual interviews with participants because group interviews stimulate and aid participants to recall descriptions of experiences shared by other
participants in the group (Fontana & Frey, 2005). In the interview, I asked four open-ended questions (see Table 2) to prompt participants to recall, interpret, and convey their teacher learning resulting from our research meetings.

Table 2: Informal Group Interview Questions

<table>
<thead>
<tr>
<th>Question 1</th>
<th>Think back to our meetings, how would you describe how we talked together?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question 2</td>
<td>Think back to our meetings, how would you describe how you reflected on documentation?</td>
</tr>
<tr>
<td>Question 3</td>
<td>In your own words, how did discussing and negotiating ideas help you refine and or develop new knowledge and understandings?</td>
</tr>
<tr>
<td>Question 4</td>
<td>Can you describe what you have learned through this project that you believe you would not have developed on your own?</td>
</tr>
</tbody>
</table>

**Field notes**

My field notes filled in gaps not recorded on the video camera, namely my memory of the moments before the camera was turned on, and the moments after the camera was turned off. These moments included informal one-on-one conversations. For example, I recorded a “secret” about a song that participants told me, explaining to me that it was their motivational song. In my notes, I wrote that I felt a very strong connection with participants today because they let me in on their inside joke (Angrosino, 2005).

These moments also included impressions that I had of the physical environment. For example, in my field notes, I recorded how the rich aroma of banana cake from the kitchen made me feel at home. I also included personal reflections about participants’ interactions that day, or what I felt about our research meetings. In one entry, I noted that participants seemed physically and mentally exhausted; I wondered if it had been a particularly eventful morning for them.
Email correspondence

I asked participants for their email addresses, explaining that I might have some follow-up questions to ask them after the study. Several weeks after our final meeting, I emailed participants with four questions regarding their previous teaching experience and experience with pedagogical documentation (see Table 3). Participants’ responses – via email – helped me to develop a more detailed written portrait.

Table 3: Email Correspondence Questions

<table>
<thead>
<tr>
<th>Question</th>
<th>Question Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question 1</td>
<td>When/How did you first learn about Reggio/documentation?</td>
</tr>
<tr>
<td>Question 2</td>
<td>When did you first try to practice documentation in the classroom? How often did you continue to do documentation over time?</td>
</tr>
<tr>
<td>Question 3</td>
<td>How long, and where, have you been an early childhood educator? What was your training to become an early childhood teacher?</td>
</tr>
<tr>
<td>Question 4</td>
<td>Did you volunteer to be a part of these sessions with me? If not, did you feel obligated to at first?</td>
</tr>
</tbody>
</table>

Data Analysis

Case study

Case study analysis was selected not so much as a methodological design but as a choice of what is to be studied and analyzed (Stake, 2005). Case study is “a way of organizing social data so as to preserve the unitary character of the social object being studied” (Goode & Hatt 1952, p. 331). A case has totality, and it has boundaries (Stake, 2003). The experiences at Westside and Northview Preschool respectively each formed a case study. It is worth a careful examination, offering a rare glimpse into the social interactions of early childhood educators studying documentation in teacher learning groups. Also, embedded in these two cases, readers might
discover resonant universal themes that they can identify with in their own professional
development and teaching lives (Lawrence-Lightfoot & Davis, 1997; Merriam, 1988).

Videotape analysis

Videotapes of our research meetings were the mainstay of this study. It provided approximately
eighteen hours of raw data. Videotapes were converted into digital format and reviewed on the
computer. While I reviewed the video material, I created dialogue maps that would literally
“map” out conversations events and topic transitions (see Table 4) (Kooy, Colarusso & Wong,
2008). In Table 4, the “time” column refers to corresponding time frame on the videotape; the
“name” column indicates who is speaking; the “action” column describes the nature of the
conversations; the “conversation event” column provides detail of the conversation; and lastly,
the “gestures” column records participants’ body language.

Table 4: Dialogue Map Excerpt (July, 2009)

<table>
<thead>
<tr>
<th>Time</th>
<th>Name</th>
<th>Action</th>
<th>Conversation Event</th>
<th>Gestures</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:50</td>
<td>Angela</td>
<td>Raises Question</td>
<td>Should we put brackets or dash?</td>
<td>Looking at Sandra</td>
</tr>
<tr>
<td>10:52</td>
<td>Sandra</td>
<td>Responds</td>
<td>I don’t know, maybe dash, Megan’s thoughts in brackets. I don’t’ really know. I like the quotations. I mean I understand, Angela understands, you understand but if we were to show to co-workers would they have the same kind of critique or would they be like, did she actually say that? We’re so conditioned to have quotes as actual he said she said.</td>
<td>Looking intently at the documentation on the table</td>
</tr>
<tr>
<td>12:22</td>
<td>Angela</td>
<td>Continuing</td>
<td>I think it just flows so well with the quotations. It’s kind of what I’m saying and then she’s saying. It’s something you have to use your imagination with.</td>
<td>Pointing to the documentation</td>
</tr>
</tbody>
</table>

Dialogue maps were created for every research meeting and the informal group interview at the
end of the study, generating fifteen dialogue maps of eight to twelve pages each. Careful analysis
of dialogue maps led to systematic reflection upon the collected data. From each meeting, themes
were identified to highlight potential significance of participants’ discussions, questions, and
overall interactions with the documentation and with each other. These themes were organized, arranged, and illustrated as key findings to create rich portraits of participants’ experience.

**Documentation content analysis**

Wien (2008) and Wong (2006) observed stages of development in teachers’ practice of pedagogical documentation. These stages include, first developing activity-based documentation, sequence-based documentation and over time pedagogically-informed documentation, which makes explicit the thinking processes and problem-solving behind children’s actions and behaviours. In this study, I studied participants’ documentation to try to understand the “stage” of their documentation, and analyzed changes in participants’ documentation overtime. A progression to another stage implied that participants were creating stronger documentation.

**Written text analysis**

When writing the findings of this study, I often reviewed my field notes to conjure up visual images of my observations and feelings at Westside and Northview Prechool to create a rich, vivid portrait of participants’ experiences.

**Triangulation**

Triangulation, defined by Stakes (2005) is a primary way of increasing validity through arriving at the same or similar interpretation of the data by at least three independent approaches. Analyzing videotapes of the research meetings yielded many significant findings. To confirm that my interpretations of the video data were reasonable, I triangulated my analyses with the group interview and informal conversations with participants.
**Ethical Considerations**

Some teachers at Westside and Northview Preschool were excluded from this study. As I mentioned earlier, Ms. Becka, the childcare director selected and approached teachers she felt would be interested in participating in this study. Teachers who also wanted to participate in this study might have felt excluded from this opportunity to develop their knowledge and understanding of pedagogical documentation. This study could not ensure equal access to all teachers at Westside and Northview Preschool.

Whether teachers approached by the childcare director were comfortable to respond honestly about their decision was another concern in this study. To minimize the chance of participation by obligation, at the first research meeting, I assured participants that they could withdraw from the study at anytime without any explanation to me, and that Ms. Becka had assured me that teachers’ participation (or absence) would not jeopardize their employment. I also provided a written explanation of the research study and a consent form indicating the terms of participation, their rights as participants, and my responsibilities as a researcher (see Appendix B). All the participants read the consent form and returned it to me signed the following week.

**Chapter Outlook**

This chapter introduced portraiture as the method of inquiry for this research study. Portraiture research provided me with a framework and a set of data collection tools to capture the richness, complexity, and social dimensionality of two groups of early childhood educators studying pedagogical documentation to promote a social process of knowledge construction.

In the following two chapters, I developed two portraits – a portrait Sandra and Angela’s study of documentation at Westside Preschool, and subsequently, a portrait of Agnes, Mabel and Noula’s study of documentation at Northview Preschool. In these portraits, I focused on
presenting the “what” – what I saw, what I noticed, what I heard… essentially, what happened at these research meetings. I strived to include colour, sound, texture, and other details into these portraits to create a story that would validate participants’ experiences and the meaning and significance that emerged from their shared experiences in the teacher learning groups.
CHAPTER FOUR

FINDINGS: WESTSIDE PRESCHOOL

A brick house in a residential neighbourhood sits at a quiet intersection. From the outside, you cannot tell that it is a childcare centre. It is not adjacent to a public school, as many childcare centres are in the Greater Toronto Area. Only when you pull into the small parking lot and you realize the uneven number of minivans with car seats in the back that you begin to suspect that this cozy private house is indeed a childcare centre. Walking towards the entrance of the school, and hearing the sounds of children playing outdoors reassure me I am at the right place.

The painted sunflower yellow hallways inside Westside Preschool produce a warm gentle ambiance. Four classrooms, three on the left side of the hallway, and one classroom on the opposite side of the hallway. On one of the classroom doors is a handmade banner saying, “Welcome Julia to the infant room!” Portrait-sized photographs of children hang outside each classroom. Many photographs depict children engaged in activity. The photographs, I observe, are mostly taken from children’s height and organized to illustrate a sequence of action. I also see children’s artwork displayed in the hallway too; clay sculptures, paintings, and sketches.

A thick white binder sits on a table outside each classroom. Flipping through it, I learn that it is a collection of daily documentation. I notice that the teachers are utilizing various documentation tools in their daily documentation. I see photographs used to illustrate children’s experiences, which is most common. I also see samples of children’s work and conversations typed up and displayed in the binder. The voice of the teacher – her interpretations and reflection on the documented experiences – is visible in some documentation too. A notebook saying,
“Write Your Comments Here” lies beside the thick binder. I open it up to see many parents offering their comments and encouragement.

The aroma of homemade cooking leads me towards the kitchen, where Ann-Maria (pseudonym), the in-house cook, is preparing a nutritious meal for the children. The shared door connecting the kitchen to the main office reminds me that I am here to conduct research. Ms. Becka is in the office. She sees me and welcomes with a big hug. She introduces me to the childcare supervisor, Amanda (pseudonym). “Amanda has kindly offered to take the infants on a morning stroll with me so that us ladies can have uninterrupted time to study documentation”, Ms. Becka tells me. I am grateful to the support they are providing to make time for participants and I to study documentation. After several more minutes of conversation, Ms. Becka takes me to the infant classroom to meet Angela and Sandra for the first time.

Sandra offers her hand, revealing a firm, authoritative handshake. She then introduces me to her co-teacher, Angela. Angela seems more soft-spoken and shy. She shakes hands with me too. I thank Angela and Sandra for inviting me into their classroom, telling them that it is a pleasure and great opportunity for me to be here. They reciprocate with approving nods. Ms. Becka quickly lets Angela and Sandra know that she and Amanda can take the infants on their stroll once they are dressed. Angela and Sandra nod, and Angela quickly steps outside to gather the infants’ hats, water bottles, and sunscreen.

I offer to help prepare the infants, helping to put on their hats, while Angela and Sandra apply a thin layer of sunscreen lotion on the infants’, nose, and necks. One-by-one, we lift the infants onto a six-seat stroller. Then, Sandra runs to the office and lets Ms. Becka and Amanda know that the infants are ready for them. In upcoming weeks, this is our routine: I help Angela
and Sandra to dress the infants for their morning stroll, and then, the three of us move to a round table in Ms. Becka and Amanda’s office to study documentation.

We have a total of six meetings. Each guided by the study of one documentation piece. In our first meeting, I prepare a documentation panel for Angela and Sandra to study. Then, in subsequent meetings, Angela and Sandra take turns to bring in their own documentation. They also use several meetings to collectively analyze data and create documentation together. At the end of the study, I conduct an informal group interview, inviting participants to reflect upon their experiences in this research study.

In this chapter, I describe the study of documentation among participants in teacher learning groups, including their voices, their thinking, and the documentation they create and examine in our research meetings. I also reveal my impressions of participants’ collaboration and interactions, offering my thoughts and comments throughout. Keep in mind that this study adopts a portraiture methodology (Lawrence-Lightfoot & Davis, 1997). As such, I aim to create thick detailed descriptions of our meetings, participants’ interactions as well as my ongoing interactions with Angela and Sandra. I am listening for their story, organizing their experiences to develop a convincing and authentic portrait of teacher learning when participants’ study of documentation in teacher learning groups.

Research findings of Westside Preschool are presented chronologically by meeting. Four main chapter themes structure the presentation of the research findings, including: (1) Building Collaboration for Teacher Learning; (2) Deconstructing Barriers to Documentation; (3) Developing Praxis in Early Childhood Education; and (4) Next Steps for Teacher Learning. Overall, in this chapter, I begin with an introduction of the documentation piece that participants studied. Then, I report on their discussion and reflections upon that documentation.
Building Collaboration for Teacher Learning

Making eye contact: Meeting one

I can hear Angela and Sandra bidding farewell to the infants who are on their way outside for their morning stroll. Quickly, they enter the office, find a seat at the round table, and turn to me to begin our meeting. I know that in the next hour, and repeatedly over the course of the next several weeks, Angela, Sandra, and I will have the time and space entirely to us for teacher learning and development. I provide an overview of this study and explain to Angela and Sandra their rights and responsibilities as participants. I am excited that Angela and Sandra seem to look forward to their participation in this research study.

I have carefully selected a documentation called, A Whole New World (Wong, 2006) for Angela and Sandra to study together for our first meeting. I hoped that Angela and Sandra could more easily relate to this documentation, since the protagonist of the documentation is a sixteen-month old infant named Abby. Abby discovers a science viewer in the classroom, and her intelligent exploration of this viewer is captured in the documentation. Furthermore, this documentation was developed within a Canadian childcare setting, a milieu, which I hypothesized could resonate with participants. All eyes are on the documentation panel in front of us…without further delay, I introduce the documentation for our study.

The documentation is created on a white panel board two-by-three feet. The title reads, A Whole New World (Wong, 2006) (Figure 1). There are five coloured-photographs. Four upright photographs are placed horizontally across the panel, reading from left to right. Abby, the protagonist of the study is at the centre of the photographs. Under each photograph is printed text describing Abby’s actions in the photographs. All eyes are on the documentation, taking in every
detail of the documentation in front of them. Angela and Sandra know that afterwards, we will respond to questions in the Protocol (MacDonald, 2001) to guide our study of the documentation.

Figure 1: A whole new world

The text immediately under the title reads:

From time to time, the infant classroom exchanges materials and resources with the toddler classroom so that children can engage with different kinds of materials. Recently, a rainbow science viewer was introduced into the infant classroom. The science viewer sat quietly on the shelf until Abby decided to explore with it.

Then, the four subsequent textbox beneath each photograph reads:

(1) Abby presses her nose against the rainbow viewer and looks through it. She turns her head up down left and right to survey the classroom through the rainbow viewer.
(2): Abby lowers the rainbow viewer from her eyes and looks around the classroom. Something seems different …where have all the rainbows gone?
(3): Abby brings the rainbow viewer to her eyes again. She looks through the rainbow viewer for one, two, three seconds. An expression of contemplation appears on her face.
(4): Suddenly, Abby lifts the rainbow viewer high above her head, and then back down again. She repeats this action until finally, Abby is satisfied with the conclusion of her experiment.
The room is very quiet I can almost hear the unison of our breathing. Suddenly, Angela breaks the silence to begin a discussion of the documentation. She offers her opinion, “Abby sees the difference between looking through the viewer. When she removes the viewer, she notices the rainbows and sees something different”. Angela mainly speaks to me, as Sandra seems to still be reading the documentation. But then, Sandra looks up and says, “I was just thinking about how the documentation panel came together”. Her eyes looking to me, she asks, “How is this documentation different from the documentation on the wall? Or the ones they do daily and archive into a binder? How did the documenter come to the conclusion that Abby was experimenting with the science viewer?”

It seems that both Angela and Sandra have forgotten about the protocol questions that will facilitate our dialogue and study of documentation. Unsurprisingly, their responses reflect a quick jump from observation to interpretation of the documentation. I gently intervene to turn our conversation back to the protocol, explaining that the protocol is designed to suspend our judgment so that we can observe the documentation in more detail, allowing us to see more than we first expect. We try again and I read aloud the first question: What do you see before you? What do your eyes and ears take in? Can you describe what you see without forming an opinion?

This time, guided by the protocol, Sandra starts, “For me personally, I see a frame for frame as to what’s happening from beginning to end. It’s very attractive looking. It’s something I would be drawn to as far as my eyes are concerned because you have this big picture of the viewer – that’s obviously what Abby was drawn to in the first place – so it tells me this panel is going to be more or less about the viewer”. Sandra looks to me while describing what she sees. Angela then reiterates, “Breaks it down, frame for frame” moving her hand up and down in a hand-chopping motion. Her gaze is also on me as she speaks.
I notice that Angela and Sandra do not make eye contact with each other. Their responses are directed to me. It is seven minutes into our first meeting when Angela and Sandra finally begin to talk to each other. Sandra tells me about how she and Angela typically document in the classroom: “We [my emphasis] try to capture what they [the infants] are doing frame for frame. It changes so quickly, by the time we get the camera, it’s over. It’s difficult to capture it as it happens”. Angela’s sudden mention of we prompts Sandra to remember that it was Angela and her who documented together, but that also, they are here to learn together. It is the same for Angela who suddenly knows to return Sandra’s gaze.

Making eye contact, which is a key attribute of reciprocity in communication poses further challenges for Angela and Sandra as they respond to the next question in the framework for dialogue, What questions do you have about the documentation? Angela asks the first question, “Can we write things like that?” Angela wonders whether the documenter should write, “Abby seems satisfied” as opposed to “Abby is satisfied”; the latter, in Angela’s opinion, is too subjective. Angela’s question reflects a tension between how she was trained as an early childhood educator, that is, to observe objectively without making any inferences.

I am eager for Angela and Sandra to address this conflict between the two observations practices, however, Angela fixes her eyes on me, hoping that I will have an answer. When I do not respond immediately, she asks her question again, “Can we still write that?”, this time, looking to Sandra. However, Sandra is staring intently at the documentation. I do not know what Sandra was thinking at that moment, but I wonder if staring ahead was the safest response when she herself did not have an answer to Angela’s question.

Throughout the entire meeting, the documentation seemed to be the focal point of participants’ attention. Communication between Angela and Sandra were minimal, especially
when compared to the immediate conversations they began when the meeting was over. I asked Angela and Sandra what kind of documentation they wanted to study next week. Naturally, they turned to each other to discuss ideas and suggestions. In the end, Angela and Sandra decided to that they wanted to study their own ongoing documentation because they hoped that our research meetings would be relevant to their ongoing classroom experiences. I look forward to seeing their documentation next week.

**Deconstructing Barriers to Documentation**

*Is that allowed? : Meeting two*

Angela and Sandra are already in the office waiting for me. They look energized and excited to begin our meeting. I spot the documentation on the table. Following my gaze, Sandra tells me that she brought her documentation for us to study today. “I created it just last week. You gave us a lot to think about. We learned quite a bit and took away from it”, says Sandra. Sandra feels empowered. She continues to tell Angela and me about her confidence to speak to another colleague about her documentation. Sandra animates the timid voice she used to speak with her colleague, “If you don’t mind me saying, I don’t want to hurt anyone feelings, but have you thought to try this with your documentation?”

I am pleasantly surprised by the impact of our previous meeting, not expecting such visible impacts on Sandra. Angela and Sandra are seemingly relaxed and eager to learn through our collaborative study of pedagogical documentation. I wonder if Angela and Sandra talked endlessly about our meeting last week, convincing themselves that this will be a valuable learning experience. No matter what the cause, this excitement set the tone for our learning
today, and for our future meetings. Sandra pushes her documentation to the centre of the table, catching our attention to begin.

Sandra’s documentation is titled, Megan’s Curiosity of the Tunnel (Figure 2). The protagonist of the documentation is an infant child named Megan. Megan is exploring a tunnel that was introduced into the classroom for the first time. Sandra had her camera with her, and took photographs of Megan interacting with the tunnel. Sandra selected four black-and-white photographs and printed them on a piece of 8 1/2 by 11 inch paper to form her documentation.

Figure 2: Sandra’s documentation
In Sandra’s documentation, underneath each of the four photographs, the text reads:

(1): Megan begins by placing her right hand on the rim of the tunnel.
(2): She then reaches with her right arm into the tunnel.
(3): Ms. Angela is at the other end of the tunnel calling Megan’s name. She responds by smiling at Ms. Angela.
(4): In the end, Megan extends her legs and ventures into the opening of the tunnel with a smile.

As Angela and I study the documentation, Sandra revisits her own documentation. From time to time, I sense Sandra’s quick glance towards our direction, perhaps wondering what we were thinking as we read her documentation work. Then, Sandra notices that Angela and I have finished reading. She looks at me, giving me a cue to begin. I put out printed questions of the protocol on the table, reading aloud the first guiding question: What do you see before you? What do your eyes and ears take in? Can you describe what you see without forming an opinion? Sandra sits quietly, listening to our responses.

Angela begins, “It reminds me of the documentation of Abby; frame for frame. Like a story, it just flows together”. She then continues, “You can tell there is actual interest. She’s [Megan] touching it, exploring the ridges, trying to figure it out”. Angela points to the photographs that she is speaking about. I then add, “Very close up photographs. Also, very clear title”. Angela agrees, and elaborates, “The text tells you what’s going on. You see it in the photos and then you read it”. After Angela and I have exhausted our initial observations of the documentation, I ask Sandra, “Do you see anything you didn’t see before?”

Sandra agrees with our observations, especially Angela’s comment that the documentation resembles the documentation we studied last week. She was very much inspired by that documentation, and it informed her many documentation decisions. Sandra pauses, and then adds to what else she sees from her documentation. “Using less the words – appears to be or seems to be – and just describing the pictures”, Sandra says. I find Sandra’s observation very
interesting, especially since in our first meeting last week, Angela questioned, “Can we write things like that? … Abby is satisfied as opposed to Abby seems satisfied”. In today’s meeting, studying Sandra’s documentation, we can revisit Angela’s question.

Sandra explains that her choice of words for the documentation was purposeful, “It’s obvious she’s [Megan] placing her right hand on the edge of the tunnel”. As such, Sandra realized that it was not necessary to write, “Megan seems to put her right hand on the edge of the tunnel”. Sandra further explains that she can confidently make this inference by studying the photograph that she took of Megan using her right hand to touch the edge of the tunnel. Sandra’s documentation offers Angela a satisfying response to whether objective statements are allowed in their documentation. Angela is also convinced that the photograph is clear about Megan putting her right hand into the tunnel, rather than that it seems she is.

Sandra reveals that when she moved away from the language of “appears to be” and “seems to be”, she felt motivated to make speculations about Megan’s thinking. What was Megan thinking when she touched the tunnel, or when she put right hand into the tunnel? But she did not know how to make visible Megan’s thinking and learning processes. In the end, to be safe, Sandra decided to keep to what she observed (e.g. Megan begins by placing her right hand on the rim of the tunnel) in her documentation. At this point, I offer the idea of generating questions about what Megan may be thinking as a starting point to our investigation of Megan’s intentions when touching different parts of the tunnel.

Angela and Sandra brainstorm, “What is Megan looking at? Who does she see?” These questions, Angela and Sandra explain, makes them think about what Megan is doing and why. I ask Angela and Sandra what question about the tunnel Megan would ask. Without any hesitation, Sandra exclaims, “How does this thing work? What will happen if I go inside? Will my hand
disappear?” We all laugh, feeling competent and intelligent that we have tried to understand the intent behind Megan’s actions as she explored the tunnel. It also felt good to feel as if we were inside Megan’s head, taking pleasure in the inquiry of the tunnel.

Suddenly, Sandra wonders whether we can write captions like these, as if we were inside Megan’s head. “Do you think it is appropriate?” Angela turns to me also waiting for an answer. Instead of giving Angela and Sandra an absolute answer, I facilitate them to come to their own reasons and answers to their question. “Let’s get a piece of paper and write out new captions. Then, we can put it side-by-side with the original captions and see what you think”, I propose. I fetch a piece of paper on the bookshelf behind me. Sandra grabs a pen from the desk drawer. They begin to think aloud, brainstorming captions that invite readers into Megan’s head:

SANDRA: I might start by, “Shall I try this tunnel?”

ANGELA: What will happen if I touch the tunnel?

SANDRA: Or even what will happen if …(dot dot dot) and leave it up to the reader.

ANGELA: Ok here, she’s thinking, I’m not ready to put my whole body in but maybe I’ll test it out. I’ll put my arm in and see what happens.

SANDRA: So how about “Let me test this out?” I’m not ready to put my whole body in but let’s just test this out.

ANGELA: Now in the picture she’s looking like, should I go in, should I not?

SANDRA: I am thinking, because Ms. Angela is at the other laughing, maybe Megan is thinking to herself, someone will be there to catch me at the other end. So if I choose to venture in, someone will be there at the other end.

ANGELA: In frame four. Kind of like, I’m not ready yet. She did get her legs through. She just wasn’t ready to climb in. Until next time…

Angela and Sandra are both sitting on the edge of their chairs, excited by their interactive brainstorming. From the perspective of Megan, Sandra suggests, “Shall I try this tunnel?” Then, Angela, also seeming fully immersed in Megan’s head offers, “What will happen if I touch the tunnel?” Angela and Sandra continue to think aloud, as if listening to each other’s thoughts and
hearing aloud their own ideas fuels their dialogic inquiry. I put the paper with the revised captions side-by-side against Sandra’s original captions in the documentation (see Table 5). Then I prompt, “Let’s look at both. How do the original and the revised captions speak to you?”

Table 5: Comparison of Documentation Captions

<table>
<thead>
<tr>
<th>Original text</th>
<th>Revised text</th>
</tr>
</thead>
<tbody>
<tr>
<td>Megan begins by placing her right hand on the rim of the tunnel.</td>
<td>What will happen if …</td>
</tr>
<tr>
<td>She then reaches with her right arm into the tunnel</td>
<td>Let me test this out with my arm.</td>
</tr>
<tr>
<td>Ms. Angela is at the other end of the tunnel calling Megan’s name. She responds by smiling at Ms. Angela.</td>
<td>Should I go in, should I not?</td>
</tr>
<tr>
<td>In the end, Megan extends her legs and ventures into the opening of the tunnel with a smile</td>
<td>I’m not ready yet. Until next time…</td>
</tr>
</tbody>
</table>

Angela and Sandra examine the two approaches to writing. They describe how the two styles of writing differ. Then, they negotiate on which approach they prefer.

ANGELA: [The original is] More from Sandra’s point of view. This is her perception. As a reader reading it, I guess it’s more fun to read what she is doing or thinking, her reaction to the tunnel. Or even if we had this [the description] and a little caption of what she’s thinking.

SANDRA: That’d be neat. Sort of teacher’s perception and than child’s perception. That’s really cool actually. I like that idea. Especially with infants because they don’t have the verbal [language] to tell you, but what is Megan thinking? And at the end, I always forget but we’re supposed to write, “interpreted by” because my interpretation would be different from Angela’s. I think it sort of says where do you go next with this one [revised captions].

ANGELA: I agree with you. The reader will probably want to know what happens. Oh, I want to see whether she’s going to go into the tunnel: Will she, will she not?

From their conversation, Angela and Sandra agree that incorporating their hypotheses of Megan’s thinking in the documentation is more interesting to read. This approach to documentation inspires them to wonder and appreciate what Megan will do next in her exploration of the tunnel. Pointing to the revised captions, Sandra concludes, “Sometimes I find it hard to put words with the pictures [in documentation], but if I were to get inside the child’s head, like what we did just now, then maybe it’d be easier. *What is she really thinking?*” Angela agrees completely.
Quotations as thinking: Meeting three

At the end of our previous meeting, Angela and Sandra decided to reintroduce the tunnel into the classroom, and document Megan’s interaction with it. Since Sandra created the last documentation, they decided that Angela would create the documentation for today’s meeting. Angela is ready with her documentation piece. She says, “Sandra and I brought the tunnel once more, exactly one week later. Also, this time we both took the pictures”. Sandra adds, “I also read what she wrote this morning”. I sense a strengthened partnership between Angela and Sandra in their practice of documentation. Angela invites us read her documentation

The layout of Angela’s documentation is very similar to Sandra’s earlier documentation. The title is at the top, entitled, Megan’s Exploration of Tunnel (Part 2) (Figure 3). Information about Megan’s age is included in the top left – thirteen months old. Four black-and-white photographs are printed on a 81/2 by 11 inch paper. Two photographs on the top, and two photographs on the bottom. Beneath each photograph is written text. At the very bottom of the documentation, Sandra includes her initials, indicating that she interpreted this documented episode.
Figure 3: Angela’s documentation

The text beneath each photograph from Angela’s documentation reads:

(1): Megan walks up and down the side of the tunnel trying to figure out what she could do with it.
(2): She begins by touching the tunnel. “How does this thing work?”
(3): She poles her head through the tunnel. “I can see the other end!”
(4): She gathers her courage and sticks her body half way into the tunnel. Maybe next time she will stick her whole body through.

Sandra is impressed by Angela’s purposeful experimentation of the writing approach in her documentation. Remembering our previous discussion about showing children’s thinking in pedagogical documentation, Sandra observes that Angela is purposeful to include Megan’s actions as well as her thoughts. For example, in photograph two, Angela first describes Megan’s action – Megan begins by touching the tunnel. Then, Angela includes her hypothesis of what
Megan is thinking as she touches the tunnel – “How does this thing work?” Sandra offers genuine praise, “I like how Angela did it, messing it up a bit. When possible, putting their thoughts into the documentation; if not, then straight observation. Angela chose to do observation as well as perception of Megan might be thinking”.

Angela is pleased but is also more critical of her own work. She questions her use of quotation marks, explaining that she was not sure whether it was misleading to use quotations to represent Megan’s thoughts when she is not actually saying it. Sandra concurs, “Quotation is something said, but how about when it’s [our hypothesis of the children’s] thoughts? ... We’re so conditioned to have quotes as actual ‘he said, she said’”. Once again, Angela and Sandra must revisit their understandings of the use of quotation marks, and collaborate to investigate how children’s thinking can be effectively communicated in their documentation.

I suggest, once again for Angela and Sandra to write out the different ways they can convey children’s thinking in the documentation. As they discuss, they consider the uses of brackets and dash, and of course, quotations.

ANGELA: Should we put brackets or dash?

SANDRA: We’re so conditioned to have quotes as actual he said she said. I don’t know, maybe a dash, Megan’s thoughts in brackets. I don’t really know. I like the quotations. I mean I understand, Angela understands, you understand but if we were to show to co-workers would they have the same kind of critique or would they be like, did she actually say that?

ANGELA: Let’s do one with the brackets.

*(Angela writes out Megan’s thoughts using brackets. For example, *(How does this thing work?)*, *(I can see the other end!)*).

Angela and Sandra study the revised text, which uses brackets instead of quotations to distinguish their hypothesis of Megan’s thoughts. Several seconds later, they agree that they do not prefer the use of brackets. They continue to try other methods. Sandra suggests, “How about putting a dash, and then, Megan’s thoughts?” Angela tries it out on paper, but they are not
satisfied. Then, Angela suggests a colour-coded system, “What if we were to use a different colour pen?” Sandra builds on this idea, “Megan’s thoughts in red, and your thoughts in blue”. Angela tries it out on paper again, but they do not like what they see.

Finally, Angela and Sandra decide that they will keep the use of quotation marks. Angela explains, “It just flows better with the quotation marks. It is kind of what I am saying, and then, what she [Megan] is saying. It’s something you have to use your imagination”. Sandra agrees, “Initially, you can explain it [the quotations] to colleagues and parents. But after they see five days of it, they will understand that this is the child’s point of view and this is our point of view”.

Unlike earlier, when they were unsure whether they were allowed to use quotations to illustrate children’s thinking, they can now articulate why they are using quotations marks. Their focus on the use of quotation marks, in fact, reflects a significant shift away from their previous understanding of documentation as an objective description of children’s gestures and speech. Now, as Sandra explains, “Anybody can see that she’s [Megan] is reaching her right hand into the tunnel. The real question for teachers is: What does this action mean for Megan?” Angela and Sandra are keen to continue their observation and documentation of Megan in the coming weeks. “I can’t wait until the next time we introduce this tunnel. What will happen this time around?” Sandra asks. Angela continues, “You get hooked onto it because we left it open for readers and even parents to think, and they will want to see what will happen next too”.

Developing Praxis in Early Childhood Education

Interpreting data collaboratively: Meeting four

I arrive at our fourth meeting eager to find out how Megan’s exploration of the tunnel develops; will she develop the courage to crawl inside? This is also Angela and Sandra’s question. But
when I see Angela and Sandra, they are looking discouraged. I do not see any documentation on
the table. I wonder what has happened.

Sandra speaks first, “So we tried the tunnel thing and it didn’t work. She was sick for two
weeks, off and on, in and out. When we brought it back, she had no interest in it whatsoever”.
Then Angela says, “Megan kind of stood back and watched her peers play with it. She was away
[sick] for so long, I think she forgot about it. It seemed like she was starting all over”. I sense
Angela and Sandra’s strong disappointment with not being able to continue their documentation
of Megan. With the inquiry of Megan’s exploration coming to an end, Angela and Sandra feel
that their learning has come to a standstill. Sandra says, “That’s pretty much it. I feel we have
learned a lot from the sessions we’ve had, and I like where we are at”.

Pausing for a moment, Sandra offers, “We do have pictures of Siena and Mackenzie [two
other infants in the classroom]. They went all the way through the tunnel”. I suggest, “Maybe we
can use this meeting to analyze the photographs together?” Angela picks up on this suggestion,
saying, “We do talk to each other about documentation. But it would be nice to write it together”.
I prompt further, “And teachers rarely have the time to look at documentation when it is raw
(unprocessed). Maybe we can study these loose photographs and see what they might tell us?
Sandra goes and retrieves the photographs in the classroom. She brings back two loose
photographs; they are printed in colour (Figure 4).
Figure 4: Loose photographs

Mackenzie is the infant wearing the green top, and Siena is the one with the purple top. They are both inside the tunnel. Mackenzie, in the photograph on the left, has her arms stretched out and is crawling on all fours. Her eyes are looking forward, focused on the path immediately ahead of her. In the same photograph, Siena is crawling behind Mackenzie. She is on all fours too. In the adjacent photograph, only Siena is present. She is looking directly at the camera, as if posing for it.

For the first time since this research study, I realize that the colour of the tunnel is turquoise. The colour in the photograph also illuminates the ridges and foldings of the tunnel. It seems silky and slippery, like vinyl. These are my observations of the photographs, but I ask Angela and Sandra to develop their own observations and interpretations first. Quite intuitively now, Angela Sandra fetch pen and paper to jot down anecdotal notes for discussion with each other later on. After five minutes of independent reflection, Angela and Sandra share with each other what they have written about the loose photographs.

Angela speaks first, describing how she saw Mackenzie just approached the tunnel and crawl through it. Siena followed in her footsteps. “I was surprised that Mackenzie actually went inside. I was shocked that they were attracted and exploring with it [the tunnel]. I wrote here that
at first Siena was afraid, but this time, she had the courage to go inside”. Angela asks, “I wonder what made Siena have the courage to crawl inside, as opposed to the other two times?”

Then, Sandra shares her notes with us, beginning with the title: “I would call the documentation, *Here comes the tunnel again!*” Studying the photographs, Sandra also hypothesizes that “Mackenzie is very interested in the ridges. It’s almost as if she stopped to look at them”. She adds, when Angela was saying how excited Mackenzie was to crawl through the tunnel, I thought, “Perhaps Mackenzie was very interested because she’s still a crawler and it’s more comfortable. Maybe at home, she crawls through everything”. Listening to Sandra’s hypothesize about Mackenzie being more comfortable with the tunnel because she is a crawler, Angela says, “That’s true, I never even thought about it like that”. Angela and Sandra realize how their ideas are different, but when hearing each other’s ideas, they realize that their ideas complement each other.

Angela and Sandra continue to analyze the loose photographs, and work towards creating a documentation piece collaboratively. Studying the loose photographs and their written notes, Angela and Sandra interpret and try to understand their body movements, their pauses, their utterances, and their stares. Angela writes down their interpretations (in italics below) as she and Sandra discuss:

ANGELA: Ok, so we’ll start off with what’s happening. So we can write, *Mackenzie approached the tunnel. She willingly crawled inside.* When I first saw her, she was going back and forth. She was so happy and kind of rolling around.

SANDRA: So, *She approached the tunnel and willingly crawled inside.*

ANGELA: She was sitting in the tunnel for a good time.

SANDRA: Yep. So she continued to go back and forth, in and out, several times repeatedly.

ANGELA: What sounds better, back and forth? In and out?

SANDRA: Would you write something about Siena following her?
ANGELA: That’s what the picture demonstrates. We could write here, *Siena observed and followed Mackenzie*. Because she was watching her.

SANDRA: So maybe Siena following Mackenzie into the tunnel as well? Or we can just write, *Siena observed and followed Mackenzie’s footsteps…Fabulous!*

From their dialogue, Angela proposes, *Mackenzie approached the tunnel. She willingly crawled inside.* She justifies her statement by explaining that she saw Mackenzie in the tunnel for a good amount of time, crawling and rolling around. Sandra then shifts the focus on Siena and asks Angela, *Would you write something about Siena following her?* Angela revisits to the photographs and agrees that Siena watched Mackenzie and followed. Angela and Sandra spend over forty minutes to interpret the data, discussing aloud while writing down their interpretations. Their discussion focuses mainly on the first photograph where both Mackenzie and Siena are present. Not realizing that an hour has passed, Angela says, “What time is it now? Is it? That went fast!”

In today’s meeting, Angela and Sandra have the opportunity to co-create interpretations and meaning about Mackenzie and Siena’s exploration. Typically, Angela and Sandra analyzed their observations, photographs and other data individually. Even in earlier meetings, Angela and Sandra would complete their documentation before showing it to one another to read. By then, the documentation was finished. Today, however, Angela and Sandra experience the process of co-creating meaning about Mackenzie and Siena’s actions and gestures. Angela realizes, “When it’s you alone, it’s just you and your own thoughts. You wouldn’t think of something other people might have said”. “Definitely”, Sandra agrees, “Two heads are better than one”. 
Connecting the pieces: Meeting five

Angela and Sandra begin the meeting with a clarification, explaining to me that since analyzing the loose photographs in our previous meeting, they did not have another period of uninterrupted time to collaborate. As such, Angela gathered the notes she and Sandra wrote together, and completed the rest of the documentation on her own. Without Sandra’s collaboration, however, Angela realized that it was more difficult. She reflects, “I found it hard, so I just put whatever. I didn’t know what to write”. While Angela and Sandra seem slightly discouraged by their lack of collaboration, in my heart, I am proud that they have sustained this inquiry of children’s experiences with the tunnel for so many weeks.

Angela and Sandra present their first collaboratively created documentation. The title of this documentation is, “Here comes the tunnel again! Shall we go inside this time?” (Figure 5)

*Figure 5: Angela & Sandra’s documentation*
The documentation is created on 8 1/2 by 11 inch paper. Two coloured-printed photographs are displayed on the left column of the paper, while on the adjacent column of the documentation, a more thorough description of the photographs is provided. It reads:

(1) Mackenzie approached the tunnel and willingly crawled inside. She continued to go back and forth, in and out several times. Siena observed from a distance and then followed in Mackenzie’s footsteps.

(2) Mackenzie begins to follow Siena. They sit, crawl, and roll around in the tunnel.

*At the very bottom of the page, in the left corner, are the words, Interpreted by A + S (Angela and Sandra’s initials respectively).*

Angela and Sandra begin their dialogic inquiry into the documentation. Sandra’s first response is, “The text is descriptive”. Angela agrees, noting that she had difficulty going inside the infants’ heads. Immediately, Angela and Sandra have an entry point into the documentation: Together, they want to add captions about Mackenzie and Siena’s thinking. Sandra gives Angela a pen and says, “I’ll let you write [while we brainstorm] since it’s the good copy”. For the first photograph, Angela writes, “Let’s play follow the leader”. Beneath the second photograph, they add the caption, “Look at me, I’m inside!”

Then, Angela and Sandra arrive at discussing the last question in the protocol – *What meaning do you find in the documentation?* They realize the need to review all the documentation related to the infants’ tunnel to consider the significance and implications of their ongoing observations and documentation. They put the three documentation pieces that they created since the start of the study, and discuss:

*ANGELA:* Well, the first two documentations are of Megan. Then, there is this one [Mackenzie and Siena]. It’s a tunnel, so it does come together, showing everyone experience with the tunnel. Maybe next time we’ll document Zara and Carmen in the tunnel too.
SANDRA: It might be more of sort of the tunnel experience as opposed to Megan’s experience. We had hoped Part 3 would be of Megan as well but it didn’t turn out that way, which is just fine. It’s all about them and how they explore the material.

ANGELA: I guess it’s kind of an ongoing process. It’s something we’ve doing for a couple of weeks. We don’t have it side by side. I guess for parents to see the whole process and how we’re collaborating with the tunnel – it’d be nice to see together.

…

SANDRA: It depends if want all the pictures. Or we want a series a pictures. Obviously we can keep the pictures, and change the writing, if we wanted to do it all in this style.

ANGELA: I feel like we would need to put all the pictures. I think if we took something out it would not be as effective. All these pictures have a story of it’s own. I’m just thinking how we would display it on a panel – would we have part 1, 2 & 3 – how would we do it?

SANDRA: It’s hard to say because Part 1 and 2 is all about Megan, right? But Part 3 is the tunnel, it’s totally different. Looking at it, I wouldn’t know if I want to include this part because it doesn’t really fit.

ANGELA: Yes. That’s true. You’re right…

SANDRA: No, it’s fine if you don’t think…

ANGELA: No, you’re right. It doesn’t flow. You have Megan’s whole exploration and then all of a sudden Mackenzie and Siena’s. It doesn’t flow.

Initially, Angela and Sandra saw the three documented episodes as one interconnected experience, but as they discuss further, Sandra’s suggestion offers Angela another way to view the three documentation pieces. They then agree that from these documentation, the focus is on Megan and her exploration of the tunnel. They decide that they want to tell her story to parents, perhaps through a documentation panel. Creating a panel is a learning opportunity that they wanted to experience too through this study.

Enthusiastically, Angela and Sandra plan how to present their panel. How will they make visible Megan’s thinking? What photographs will they use? What would they write? Angela and Sandra decide to include all the photographs they used in their earlier documentations of Megan. While Angela and Sandra negotiate and plan the panel layout, Sandra sketches out the blueprint for their panel (Figure 6):
SANDRA: I think it would be more effective if we did four photographs across and then another four photographs across underneath.

ANGELA: It’s just the way you look at it. When you’re reading, it’s human nature.

SANDRA: The paper can go like this [landscape]. We’re just conditioned to do it that way [portrait], because otherwise it wouldn’t fit in the binder [organizing their daily documentation]. But on a panel we have that choice to do it upright or horizontal.

ANGELA: Do we want the title in the middle or on the top?

SANDRA: I think it’s more effective to have it on the top. It’s the beginning of the panel. It’s the first thing you’ll look at.

ANGELA: We’ll have the two parts.

SANDRA: So have the title and the date in brackets maybe? And then we’ll have the photographs one, two, three, and four.

Figure 6: Blueprint for documentation panel

Interestingly, the documentation layout that Angela and Sandra plan is very similar to the documentation layout of A Whole New World (Wong, 2006), the first documentation that they studied together. Likely, this is not a coincidence, suggesting a possible modeling effect. With a visual representation of the panel now developed, Angela and Sandra focus on the content of the documentation, namely the text accompanying the photographs. They revisit the writing in their
earlier documentation (i.e. Part 1 & 2 of Megan’s exploration) and brainstorm effective ways to communicate Megan’s thinking processes:

SANDRA: Do you want to do the quotes first or the description?
ANIELA: Are we going to keep the descriptions the same?
SANDRA: We can look at it and see.
(Angela and Sandra reread Part 1 and Part 2 of their documentation pieces)
SANDRA: I remember we had a discussion here about what she might be looking at, and what she might be thinking?
ANIELA: So do you want to keep this one [Part 1] the same?
SANDRA: I don’t’ know, as I’m reading, I don’t’ know if we could really change it because it is a description.
ANIELA: I think we can keep the description the same and add quotes. It’s not like these descriptions are long anyways. When you type it out, it’ll be short.

Deciding to keep the description of the photographs the same, Angela and Sandra brainstorm captions that would invite readers into Megan’s thinking process. For the first set of photographs, Angela suggests: *How does this thing work?* and *Let’s put my arm inside, what’s going to happen?* Alternatively, Sandra suggests, *If I put my arm inside, what’s going to happen?* Angela and Sandra decide to put the captions just above each photograph, as if the captions are introducing the photograph.

A sudden knock on the door interrupts Angela and Sandra’s flow. It is Amanda, and we immediately realize that we have gone past the hour. “We can keep this in our bin bucket, and as the week goes on, we can add to it”, Sandra says. Angela and Sandra are very motivated by this new direction for their learning. Not only have they developed a common goal for learning to create pedagogical documentation using a panel format, Angela and Sandra have once again revisited their own documentation to deepen their understanding of their own ongoing observations and interpretations of children’s interactions with the tunnel. It seems that truly the
practice of pedagogical documentation has tangible, direct value for Angela and Sandra’s teaching in the infant classroom.

**Revisiting the panel: Meeting six**

A blank panel 20 by 30 inches lies on the table. Sandra explains that during the week, she and Angela developed the remaining captions. Then, Angela printed off the photographs, while she typed up at the text. Today, they will use this final meeting to put the photographs and the text together. Angela examines the blueprint, and guides Sandra to place the appropriate pieces onto the panel (Figure 7). The title, *Megan’s Curiosity of the Tunnel – June 26th*, is printed in a larger font size than other writing on the panel. They put the title in the top-centre. Then, they put the four photographs are collected from Sandra’s earlier documentation of Megan horizontally across the panel. A subtitle *Part 2 – July 3rd*, separates the next row of photographs, the four photographs are collected from Angela’s documentation of Megan.

*Figure 7: Angela and Sandra’s panel-in-progress*
There are two rows of text, one row above the photographs and the other row of text below the photographs. The top row consists of “captions”, interpretations of Megan’s thinking. The bottom row consists of descriptive text, telling readers what is happening in each photograph.

Captions of Megan’s thinking read consecutively from left to right:

(Caption 1) “How does this thing work?
(Caption 2): If I put my arm inside what will happen?”
(Caption 3): “What will I see at the other end?”
(Caption 4): “Should I take the chance and go inside?”

Underneath the top four photographs, the descriptive text reads:

(1): Megan begins by placing her right hand on the rim of the tunnel.
(2): She then reaches with her right arm into the tunnel.
(3): Ms. Angela is at the other end calling Megan’s name. Megan responds by smiling at Ms. Angela.
(4): In the end Megan extends her legs and ventures into the opening of the tunnel with a smile.

In the second row of photographs, the captions illustrating Megan’s thinking are, once again, placed above the four photographs and reads consecutively from left to right:

(Caption 1): “How does this work again?”
(Caption 2): “Let’s check this tunnel out”
(Caption 3): “I can see the other end!”
(Caption 4): “Ok I am going in”.

The descriptive text underneath the four photographs reads:

(1): She begins by touching the tunnel.
(2): Megan walks up and down the side of the tunnel trying to figure out what she could do with it.
(3): She pokes her head through the tunnel.
(4): She gathers her courage and sticks her body halfway into the tunnel.

Purposefully, Angela and Sandra have adopted a systematic layout to their documentation panel. They take a moment to admire their work. Sandra proudly proclaims, “This is our baby Angela!”
Now, before pasting the photographs and text permanently onto the panel, Angela and Sandra return to the protocol and study their documentation panel. They want to investigate: How does their documentation read? Are they able to communicate Megan’s thinking through their documentation panel? What needs to be revised and changed? First, Angela and Sandra drill into visual display of their documentation, such as, the fine details of font size, punctuation, and word structure, all of which are important elements that can heighten readers’ understanding of children’s learning. Sandra admires that the photographs are just the right size to highlight Megan’s actions. Angela comments on size of the title, saying that to her, the title seems small. She suggests, “I think we can make the title bigger, even in bold”. Sandra agrees and records Angela’s suggestion on a piece of paper, beginning a list of items to revise.

Next, Angela and Sandra turn their attention to the written content. They refine the descriptive text, to make it more clear and concise. I bring attention to the text accompanying the forth photograph – In the end, Megan extends her legs and ventures into the opening of the tunnel with a smile. It seems as if Megan has already gone into the tunnel. Angela asks, “Would it be more clear if we chose a better choice of words. When it says – She ventures into the tunnel – it does sound like she goes into the tunnel when in fact, Megan only put her legs in”… Suddenly, Sandra eliminates the word ventures. She explains, “Now you have, Megan extends her legs into the opening of the tunnel with a smile”. Angela is satisfied with this change, commenting, “When I read it the first time, it didn’t even hit me”. Sandra adds, “You don’t think about these things until you actually sit down and analyze it again”.

As our final meeting comes to an end, I play devil’s advocate, prompting Angela and Sandra to think of an alternative title that would say more about Megan’s curiosity. I explain that a title is like a mini-thesis that should encapsulate what the documenter wants to make visible.
Angela and Sandra look at their earlier titles, *Megan’s Curiosity of the Tunnel* and *Megan’s Exploration of the Tunnel*. Then, they revisit the purpose of their documentation panel, that is, to show Megan’s thinking as hypothesized through her actions.

Sandra recalls a conversation she had with a colleague, who in her documentation titles, often use action words (i.e. verbs). Sandra considers the possibility in this documentation, suggesting to Angela, Maybe we can call it, *Looking, Touching, Feeling, Going in*”. She elaborates, “If you take a look at the text [in the documentation], Megan is asking, *How does this thing work, How does it work again?* So, maybe the title could be more a emphasis on Megan’s actions to find out how the tunnel works”. With this final thought, Angela and Sandra are confident to put together their documentation panel (Figure 8).

![Figure 8: Completed documentation panel](image-url)
Next Steps for Teacher Learning: Group Interview

Thinking back on our meetings, Angela and Sandra speak positively of their opportunity to discuss and reflect on documentation together. First and foremost, they both felt very comfortable to speak, especially considering also that they have only worked together for two months. They did not feel pressured to speak a certain way. They describe their discussion and reflections upon documentation as, “feeding off each other’s ideas”.

Sandra takes a moment to show her appreciation to Angela for their collaboration. She says, “Sometimes I find it hard to take criticism, the way you delivered it, I didn’t see it that way, I didn’t get my back up, I didn’t take it personally. I just took it as constructive criticism in the sense that it helped me grow”. Angela, touched by Sandra’s view of their relationship, reciprocates, “I respect Sandra’s point of view. If she’s telling me something, I’m going to listen. I know she doesn’t have anything against me. She’s just reflecting based on my work, and she’s telling me how she feels based on my work”.

Angela and Sandra elaborate on what they have gained through their study of documentation. Sandra recites a list: “Appears to be, seems to be”; then, “The quotes”, then sort of “Looking at the title”; and finally, “The whole panel thing – Can we make it into a panel?” But the most significant learning is, “Going into the children’s heads”:

ANGELA: At first, we weren’t sure about how to properly do it [documentation]. We didn’t know how to choose the words, and express what they were doing…

So now, just to go about the way of writing, the words that you might use. Looking at the actions of the child. Trying to understand where they are coming from, their point of view. Getting in their heads, I really like that.

SANDRA: I think, before, with “appears to be”, it was like pulling teeth to figure out what she is actually doing in this photograph. Whereas now, you can say, “She’s excited”, “She’s looking through the other end” … trying to get into their heads and figuring out what they are doing and saying. It makes it more exciting.

Because they [children] are so smart, and their thoughts are going a mile and minute but to actually step back, and wow, what are they thinking?
For Angela and Sandra, learning to approach documentation through the eyes of children seems to significantly change how they document. It changes how they observe, focusing their attention on the children’s actions and what they mean. It also changes how they write up documentation, allowing a more subjective, narrative approach. Collectively, Angela and Sandra seem amazed by how smart children are, impacting not only their image of children, but their respective roles as partners in children’s learning.

Angela and Sandra have an opportunity to present their experiences to their colleagues at an upcoming staff professional development at Westside Preschool. Sandra shares, “At this point, I’m excited to put the panel together and present it”. However, she continues, “It’s nerve racking too because you’re not sure how they’re [their colleagues] going to respond and what questions they might fire at you”. Then, taking a deep breath and turning to Angela, Sandra says, “But we have each other. If I don’t have the answer, perhaps you do. Or like, back me up girl! … If someone says why did you do that, we can say we spent a whole hour thinking about it!”

Angela and Sandra hope that their presentation at the staff professional development will inspire their colleagues to be more open and say, “Hey, let’s sit down and you have a look at this [documentation]. Or I can go to them and say, what do you think of mine?” This need to collaborate with each other as well as with their colleagues is becoming an essential element to professional learning and development. In the authoritative words of Sandra, “Effective documentation is collaboration!” Interestingly, at the staff professional development meeting, Angela and Sandra are asked by a colleague how they will continue their collaboration, now that their meetings with me have ended. Angela and Sandra are prepared for this question, as they too have thought long and hard about this question.
Sandra responds, “We have a group of infants now that are sleeping all at the same time, which is great because we do have that time to collaborate”. She then points out, “We do have separate lunches…the first staff gets the opportunity to look at the data and jot down rough notes – not do the whole thing. When the second staff comes back [from lunch], she can take a look at what the first staff has written, make changes, cross things out and edit… and Boom, Done!” And of course, Angela and Sandra explain that they will continue to email each other, talk when they are on their morning stroll with the infants, and exhaust all means communication so that “the wheels are always turning”.

Their excitement to document, to collaborate, and to learn seems to spill over to their colleagues, who are witnesses to their increasing desire to document and share their documentation. At the staff professional development, other teachers want to know, “Are we going to get our turn?” With this question, Sandra playfully (but honestly) whispers loudly to Ms. Becka, the director, “COLLABORATION! TIME TO COLLABORATE”. Ms. Becka does not overlook Sandra’s suggestion, and responds similarly in a loud whisper, “JUST TELL ME AND I’LL GIVE IT TO YA”. Sandra seizes this moment and says, “GIVE US AN HOUR A WEEK”.

**Summary Intent**

Chapter Four portrays Angela and Sandra’s study of documentation over the course of six meetings. In our first meeting, I prepare the documentation, *A Whole New World* (Wong, 2006) for our discussion. This meeting provides participants with an initial experience of collaborating with each other. In our subsequent meetings, participants bring their own documentation, reasoning that studying their documentation will reflect questions and inquiries more relevant to
their own learning. Sandra brings in the first documentation, which ignites a series of focused observation and documentation on the infants’ exploration of the tunnel. Angela brings in the second documentation, building on Sandra’s observations and their discussions.

In the third and forth meeting, participants use our meeting times to collaboratively create documentation. First, they work together to interpret and analyze loose photographs of Siena and Mackenzie playing with the tunnel. Then, they create a documentation illustrating Siena and Mackenzie’s experience, working side-by-side to develop text to accompany their interpretations of the photographs. In the final meetings, participants revisit all the documentation they created in this study, and create a documentation panel. They discuss the implications of these documentations, and collaboratively negotiate what they want to illustrate on their panel.

In Chapter Six – the discussion chapter – I examine Angela and Sandra’s collective experiences of studying documentation in teacher learning groups and discuss the meaning and implications for teaching and teacher learning.
CHAPTER FIVE

FINDINGS: NORTHVIEW PRESCHOOL

To reach Northview Preschool, I drive for ten-minutes from Westside Preschool and arrive at a small business plaza. Several shops – a bank, a dental office, and a florist – each reflect a Victorian-style building design. Northview Preschool sits at the centre of this picturesque complex. A red-striped six-seat stroller is parked in front of the school. I walk through the entrance to the foyer and ring the doorbell. As I wait for someone to open the door, my eyes are drawn to a collage on the wall showing photographs of children posing happily for the camera.

Sarah (pseudonym used), the childcare supervisor opens the door and welcomes me in. The lights in the hallway are dimmed; it is noon and the children are getting ready for their afternoon nap. Sarah leads me through the hallway, which turns sharply before we arrive at the kitchen on my left. Several teachers are gathered there on the couch and around a dining table. They are enjoying their lunches in the company of their colleagues. One of the teachers is talking about her trip to New York just last weekend. I introduce myself and present a marble cake that I brought with me as a token of appreciation for inviting me to their school.

Sarah then leads me to the art studio, situated right beside the kitchen. Here participants and I will meet over the course of the research study. The room is filled with two-shelves of recycled materials, neatly organized according to its form – cotton balls with cotton balls, popsicle sticks with popsicle sticks, and so forth. A child-sized rectangular table sits in the centre of the studio room. Sarah quickly pulls a pink-and-white striped tablecloth onto the table. She says, “To make your working space more beautiful”. This is just the perfect room, spacious and private.
The three classrooms – infant, toddler, and preschool – are just across from the art studio. To the left is the infant room, which is a large room that can accommodate up to ten infant children. I peer over the safety gate and my eyes are drawn to the cozy carpeted area with big soft plush cushions. Then I walk to the next room, the toddler classroom. Its doors are closed and so I study the five clipboards hanging outside; one clipboard for each day of the week, reporting on what happens that day in the toddler classroom. Finally, there is the preschool classroom, and again, my focus is on the children’s artwork displayed outside. There are several panels recounting previous projects that the preschoolers have investigated, such as “Dogs” and “The Solar System”.

I will be working with Agnes, Mabel, and Noula over the next several weeks. I have never met Noula before; I vaguely recall Mabel from a Reggio-inspired conference that we both attended two years ago; and I know Agnes through her parents, with whom I attend the same church. I look forward to working with them. Ms. Becka has told me how much she wants to provide additional support to the teachers at Northview Preschool. Their understanding of the Reggio Emilia approach, and particularly, pedagogical documentation, is novice. One-by-one, after putting the children down for their nap, Agnes, Mabel, and Noula enter the art studio.

We have a total of eight meetings. The first seven meetings are guided by the study of one documentation piece. In our first meeting, I prepare a documentation panel for Agnes, Mabel, and Noula to study. Then, in subsequent meetings, participants take turns to bring in their own documentation. In our final meeting, Agnes, Mabel and Noula study Angela and Sandra’s documentation of Megan’s exploration of the tunnel. At the end of the study, I conduct an informal group interview, inviting participants to reflect upon their experiences in this research study.
Similar to chapter four, I describe participants’ study of documentation in teacher learning groups, including their voices, their thinking, and the documentation they create and examine in our research meetings. I also reveal my impressions of participants’ collaboration and interactions, offering my thoughts and comments throughout. I listen for Agnes, Mabel, and Noula’s story, organizing their experiences to develop a convincing and authentic portrait of teacher learning when participants’ study of documentation in teacher learning groups.

Research findings of Northview Preschool are presented chronologically by meeting. The four main chapter themes introduced previously structure the presentation of the research findings, including: (1) Building Collaboration for Teacher Learning; (2) Deconstructing Barriers to Documentation; (3) Developing Praxis in Early Childhood Education; and (4) Next Steps for Teacher Learning. Again, in this chapter, I first introduce the documentation piece that participants studied. Then, I report on their discussion and reflections upon that documentation.

**Building Collaboration for Teacher Learning**

**The race to move forward: Meeting one**

Agnes, Mabel, and Noula are preparing the children for their afternoon naps. I wait patiently for them in the art studio, knowing that they will come once the children in their classroom are settled down. Mabel enters holding a cup of tea. Then, Noula walks in. They tell me that Agnes is away on vacation this week but will return before our next meeting. Mabel and Noula volunteer to fill her in about what we do today, so that she will be up to speed in our next meeting. When I provide a quick overview of my research, and give them the consent forms to take home to read and sign, Noula asks for an extra copy to give to Agnes.
Mabel and Noula seem eager to see the documentation panel that is faced down on the table. I have once again prepared the documentation, *A Whole New World* (Wong, 2006) for Mabel and Noula to study. I select this documentation again since Angela and Sandra found it provocative and interesting to study together. Furthermore, the documentation is generally easy to read. The documentation text is clear and concise, and the photographs are focused and defined. I turn over the documentation panel and Mabel and Noula’s eyes light up. Mabel and Noula move the panel closer to them. Their eyes move slowly from left to right, reading the first picture, the second, the third, and finally, to the last picture of Abby lifting the science viewer high above her head (Figure 9).

**Figure 9: A whole new world**

After five minutes of reading the documentation, Mabel breaks the silence and says, “We have something like that [the viewer] but it’s a magnifying sheet”. Evidently, she is finished reading the documentation. I ask Noula if she is finished reading the documentation, to which she nods her head. This is my cue to read aloud the first question in the framework for dialogue.
and guide Mabel and Noula to reflect deeply upon the documentation. I begin, *What do you see before you? What do your eyes and ears take in? Can you describe what you see without forming an opinion?*

Mabel and Noula respond very quickly, telling me that they see a child playing with the viewer, that the child is putting the viewer in front of her face, and that she is moving the viewer around and seeing what happens if she lifts the viewer from her eyes. Then, Mabel asks a question, wondering whether Abby can also see the rainbow colours, just as we see in the photograph of the science viewer. Mabel is already at the process of analyzing the documentation.

Mabel says, “Abby is testing it [the viewer]. Maybe she gets the concept that if I put it on my eyes, things will be different”. Then, Noula offers her interpretation, “Maybe she [Abby], as an infant, likes to do everything close to her mouth. Maybe she thinks that until her nose touches the viewer, she won’t see the colours”. I suggest to Mabel and Noula that the protocol is designed to slow down our thinking, so that for now, we can take a moment to focus on what our eyes take in from looking at the documentation.

The next question in the protocol poses further challenges for Mabel and Noula as they are asked, *what questions do you have about the documentation?* Instead of generating questions about the documentation, they eagerly begin to determine the “real” meaning behind Abby’s exploration of the viewer. Mabel and Noula’s focus, it seems, is to brainstorm what activities they can do next to build on Abby’s interests:

**MABEL:** The first question I have is, as soon as she picks up that toy, I will ask, Let’s see how she explores? What does she think about how to play with this toy? Or what to do with this toy? Maybe she’s not putting it on her face, maybe she’s thinking about something else.

**ALICE:** So in all these questions, you are wondering if this documentation panel provides an accurate interpretation?
MABEL: Yes. How does she [Abby] interact with this toy first? And then follow her actions. This is perfect, like the teacher has caught the perfect moment. The teacher can explain everything.

NOULA: Or you can, as soon the infant has the toy in her hand, and you see they are exploring it in a different way, you can start video-taping. Then talk with other staff, and see from that video, ten times what that child is doing. And then you can go more on, giving the toy again, seeing the different ways of exploring.

ALICE: So what question would you ask about the documentation?

NOULA: So if the child is working on rainbows, you can work on rainbows more. If it’s the transparent thing, you can work more on that. If the child is interested in the mirror, then you can work on that.

ALICE: So the question you might ask is, What is Abby really doing? Or how can we find out more accurately?

NOULA: Exactly.

I prompt Mabel and Noula to formulate questions about the documentation, knowing that the process of generating questions can reveal unnoticed observations and taken-for-granted assumptions about the documentation. Mabel and Noula try, but their conversations shifts back again to what they can do next with Abby. I listen carefully, and eventually redirect Mabel and Noula’s interpretations by rephrasing their thoughts into a question about the documentation.

The urgency to move forward and find a right answer is most evident when Mabel and Noula arrive at the protocol question: *What do you think the documentation is attempting to show? What do you think the documenter is trying to understand?* Mabel and Noula are quick to respond:

MABEL: We try to understand that Lauren is trying to do something, that she is exploring…

NOULA: [Interrupts Mabel]: Lauren is exploring the toy in different ways.

MABEL: Or she’s testing, does this toy make the difference because she leaves it up and brings it back and forth. Why is she moving it back and forth? You have to think about that.
NOULA: All these questions is why: Why looking at the empty space, why looking at the transparent thing, why lifting it up, what she is doing after that lifting?

ALICE: So now, can we try to answer some of the whys?

MABEL: I think she realizes the difference. I think she’s trying to find…

NOULA: [Interrupts Mabel]: She’s trying to find out, what is difference if I hold it this way or that way. Or her thinking process is, what is going on in this toy? Here, you can see her eyes on the floor, she’s seeing what is there when she lifts it up.

On two occasions, Noula interrupts Mabel midway through her sentence to convey her viewpoint. Her responses are full of certainty, “Abby is exploring the toy in different ways”. This suggests Noula’s strong eagerness to provide the “right” answer. Unfortunately, her inadvertent interruptions make it difficult for Mabel to speak her mind. Furthermore, since the protocol questions are designed to facilitate multiple hypotheses for further discussion and dialogue, there is no absolute answer as to what the documentation is trying to show, or what the documenter wants to understand.

Mabel and Noula sincerely want to gain a deeper understanding of Abby’s exploration with the viewer, so that, if they were Abby’s teachers, they would know exactly what activities to plan for Abby. At the same time however, both their desire to realize the best interpretation of Abby’s actions draws them away from listening to each other’s points of view. Therefore, when Noula asks me at the end of our first meeting, “Can you suggest to us what is the better way to do things?”, I take the opportunity to say that the best way is – through our discussions – to find a way that will work for all of us.

Active listening is hard work: Meeting two

At the end of our previous meeting, I invited Mabel and Noula to bring in their own documentation. Mabel volunteers to bring an older piece of documentation, something that she
had created a while back. I wanted her to bring a more recent piece of documentation, perhaps, something that she will create this week. However, she is the first to volunteer and I do not want to pressure her. I learn to be respectful of her time and her decisions in the learning process.

Agnes joins us for the first time today.

Mabel brings a documentation piece that she created more than a year ago. The documentation consists of two sheets of white paper 8 ½ by 11-inches. The title is centred at the top of the first page and reads, *Exploring Our Magnifying Sheets* (Figure 10). The first page consists of all text, typed out using a computer. The text describes the experiences of several infant children who are exploring magnifying sheets that were introduced into the classroom.

The second page continues with more text, and concludes with two black and white photographs showing two infant children holding a magnifying sheet to their face. Mabel is in both photographs, standing in front of the infant children as they look through the magnifying sheet.

*Figure 10: Mabel’s documentation*
Mabel switches seats with Agnes so that she and Noula can sit side-by-side to read her documentation. Page one of her documentation reads:

> Based on our observation, our infants seemed to enjoy holding the magnifying sheets and then walked around in the classroom with them last week. Our infants held the sheets as if they were toys. Today, we noticed that our infants found a new way to explore the magnifying sheets. Keegan was the first one to pick up the sheet. He pressed his face on it. His facial expressions made him look funny. The teachers started to laugh. Then, he lifted his head up. Did he want to see the difference? Did he want to see the teachers’ reactions with/without the sheet in front of his face? When he placed it back on his face, the teachers were laughing again because of his funny expressions. Maybe, the teachers’ responses stimulated the children’s curiosity. Eltahn picked up another piece of the magnifying sheet and put it in front of his face. We wondered if they knew why the teachers were laughing. To lead our infants’ investigation, Ms. Mabel put a sheet in front of her face and showed it to our infants. Eli looked at Ms. Mabel for a while. Then he started to laugh. Did he see Ms. Mabel’s funny face too?

The second page reads:

> Then he [Eli] took Ms. Mabel’s sheet away. He put it in front of his face and showed it to Ms. Mabel. Did he want to show us his funny face again? Keegan saw what we did. He came to us and put a sheet in front of Ms. Mabel. Could he see Ms. Mabel’s funny face? We also invited Gabriella to join our game. We put a sheet in front of her. She kept looking at us through the sheet. Did she wonder why we looked different? Logan came to join us. He picked up one of the sheets & pressed his face on it. Did he want to feel the texture of the sheet? Did he want to make a funny face?

I feel Mabel’s eyes on us, wondering perhaps, what we might be thinking about her documentation. She mutters a comment about her own documentation, saying, “Oh, such a big title”. I gently ask her to let us read the documentation first, before we begin to discuss it. Mabel covers her mouth with her hands, pretending to be quiet. I empathize with Mabel, knowing that we can be our own worst critics. After several minutes, Agnes and Noula meet my eyes to let me know they are ready to begin discussing the documentation. I ask: *What do you see before you? What do your eyes and ears take in? Can you describe what you see without forming an opinion?*
Agnes begins, “A lot of words”. Noula continues, “Black writing. Nice pictures. Compared to the pictures, a lot of words”. Mabel jumps in to explain that she had taken other photographs too, but did not include them in this documentation. I want to remind Mabel that we should first focus on what we see in the documentation, but Noula quickly tells Mabel, “We’re not telling you that you’re wrong. Stop it”. Noula words are direct, making me nervous about whether Mabel would feel offended. Then, as if realizing her own forcefulness, Noula reassures Mabel of her hard work, observing, “There is a date... It’s not negative, I’m saying it’s positive that the date is there”.

The task of listening remains a challenge for Mabel as the discussion continues. Especially when Agnes and Noula misunderstand Mabel for holding the magnifying sheets in the photographs.

NOULA: And in both pictures, I see that the teacher is holding the sheets. Do they really need to hold it or can the child do it? You can see the child is independent, he can walk, so do we really need to hold the sheet.

MABEL: I didn’t hold the sheet. Maybe the angle you think I’m holding it, but I’m not touching it.

NOULA: But Mabel, its not what you did but what question comes out from the picture. Same question, when you’re looking as a parent, I’m just thinking of my way being a parent. Maybe she’s holding that or not, that’s the question.

MABEL: It looks like I’m holding it but when you look at the picture you can see I didn’t touch it. But the position may look like I’m holding it.

AGNES: We just need to tell our thinking and feeling. We don’t need to find the answer.

MABEL: I’m just saying I have to be careful of my position too.

Mabel defends herself, explaining that she was not holding the magnifying sheets. It was perhaps because of the way the photographs were taken. Meanwhile, Agnes and Noula seem frustrated.
that their observations are not being appreciated. They explain to Mabel that it does not matter whether she was holding the magnifying sheets or not. What is significant is that from studying the photograph, it seems as though she was holding the magnifying sheets for the child. Respectful listening between participants temporarily comes to a stand still as each person tries to dominate the discussion with their own viewpoint.

Shortly after, Mabel takes initiative to say that after listening to all points of view, in the future, she will be more mindful of her positioning in photographs. I privately ask Mabel after the meeting if she felt discouraged by our discussion of her documentation. I note that there were moments in our meeting that I felt she was put on the spot. Fortunately, she assures me that, on the contraire, she found our meeting helpful to understanding more about documentation.

Mabel’s courage to be the first person to share her documentation sets the tone of risk-taking and trust to learn from one another (Zellermayer, 2001). For our next meeting, I ask participants what kind of documentation they would like to study together. Would it be more helpful if I brought in published piece of documentation, such as the documentation about Abby, or would it be more useful to study each other’s documentation? Noula speaks up, “Our documentation, we already see. And we can see what we are doing. What do you think Agnes?” Anges agrees but she adds, “I haven’t had the chance to review our documentation, like today. But also like you said, I also want to see other’s documentation. It can give us ideas…Maybe we can do both?”

I know that one hour is likely not sufficient to discuss two pieces of documentation. Agnes then suggests, “Maybe next time you can bring a documentation in, and then after that, we might have something new to bring in ourselves”. I agree and add, “If you change your minds, that is fine with me too. Either way, I will be ready with a documentation”.

101
Deconstructing Barriers to Documentation

Reporting is not documenting: Meeting three

Noula surprises me with a documentation to share. She takes me to see the panels hanging outside her preschool classroom, and asks me to choose one for our discussion today. “This is the Dog Project”, she says as she explains to me the photographs that show children visiting the veterinarian, the firehouse to see the firedog, and Clifford, the big red dog. Several of the children’s sketches of dogs are also displayed on the panel. Noula highlights two particular sketches, “In this sketch, the child draws two legs only on the dog, and after he did four [legs]”. She then guides me to the opposite wall where she shows me another project, “The Space Project”. Again, she talks me through several drawings of the solar system, a Paper Mache structure of the solar system, and excerpts of children’s conversations about space. Noula seems very proud of these two projects, confidently telling me what she and the children did.

I ask Noula which panel she wants us to focus on today. She replies, “We can pick any one you like, or one from the classroom. Because I know I did it, I want you to pick so you can tell what you think”. I quickly suggest, “Maybe you can pick one that you would like to hear our feedback on?” At once, Noula goes into her classroom and brings out a panel, entitled, The Collage Experience (Figure 11). The panel consists of four sheets of 8 ½ by 11-inches paper pasted on a large square piece of black construction paper. There are two sheets on top, and two sheets on the bottom reading from left to right, top to bottom.
Figure 11: Noula’s documentation #1

I notice that the photographs and children’s work is missing from her documentation. I ask if she can bring them for us to study too, but Noula says, “It’s nailed to the wall. But Agnes and Mabel already saw them, they have an idea, or they can go and look”. I realize that this is an incomplete documentation piece that we will be studying today. I wonder if we should proceed since the photographs and children’s artwork that accompanies the panel are missing. However, I also trust the discussion process, believing that a strong discussion will develop.

Noula provides a background to her documentation. She explains, “We started the collage work, and this is the seven different activities. This paragraph – Stage One – is only for one part of the collage. The other – Stage Two – is for the second collage activity. There are a total of seven paragraphs, each describing the different material that was used to make a collage”. For example, the first paragraph describes the children using feathers to make a collage. The second paragraph, and subsequent paragraphs describe the use of herbs and spices, coffee beans, sugar, stained-glass paper, paints, and leaves to create a collage.
Participants turn to me to ask the first question in the protocol. By this point in the study, the protocol is quite integrated into our study of documentation. Agnes and Mabel respond to what they see:

MABEL: [I can see] Like we usually do documentation, black paper in the background and white paper. Title in the beginning. And it’s a lot of words, though I know pictures are in the classroom.

AGNES: Personally I think the words are big enough. So my first impression, it’s easy to read, even if they only have words and no pictures. They have subtitles, they have title and subtitles, so it’s clear.

MABEL: When I read this [documentation] fully, I didn’t have a lot of questions to ask because I just follow it, I got the information.

AGNES: From the title it says it’s about the collage experience, I think I’m going to see what they are going to do in the activities, that they are not going to find out a new way to do the collage, from the title, just to experience it only.

Agnes and Mabel’s responses to the documentation are few. As Mabel observes, the documentation is very informative, and provides a very clear description of what the children did during the collage-making experience. Agnes describes the documentation quite precisely when she says, “I think this documentation is just like a summary of the activity. If the teachers had more time, I would have liked to see more dialogue”. Agnes speaks my thoughts and concern about the documentation. She elaborates:

I’m always impressed with documentation where child A says something, then child B says something, and then the teacher asks something. I can then imagine what they are doing. For sure, this [Noula’s] documentation is from the point of view of the teacher, from their eyes what the children are doing. If they can put more children’s conversation in it, I would be able to understand what the children are trying to tell us.

But this is just a paragraph, briefly telling us what they are doing [for each activity]. If the teacher had a chance, maybe she doesn’t need to do this kind of summary, and maybe [instead] write ten lines of conversation.
Agnes seems to understand that Reggio-inspired documentation calls on documenters to make visible children’s thinking through artifacts such as children’s dialogue (Malaguzzi, 1998; Rinaldi, 2006). In doing so, they as teachers can discuss, negotiate, and develop better understandings of children’s theories and ideas.

Mabel agrees with Agnes’ view of documentation, but she wonders if all documentation should aim to capture what children are doing, saying, and thinking. She likes that Noula’s documentation is informative. Furthermore, this “summary-style” approach to documentation is how she approaches her daily documentation of the infants in her classroom: “I write down exactly what happened, like writing a summary”. Noula adds, “If the teacher opened five activities in the room, then she has five different pictures for each activity”. Mabel suddenly asks, “Are we saying that daily documentation should do more than that?” Mabel continues, “I always thought before that daily documentation is a snapshot of the whole day… but now I learn that we can use daily documentation to back up the documentation panels we do”. Mabel is not speaking to anyone in particular, however, she is deep in her thoughts, thinking aloud and trying to assimilate this new knowledge of doing documentation.

Noula agrees with what Agnes and Mabel have said so far. However, she has her reservations about changing her daily documentation approach. She explains that by creating documentation that summarizes daily activities, readers have the choice to read the summary first, and then, if they are interested in what they see, they can come into the classroom to look at the photographs of children and their artwork. According to Noula, “Having the summary beside the artwork is fast for everyone [to read]”. Paradoxically, the documentation summary that we just studied was four-pages long. Yet, the movement of Noula’s hand firmly hitting against the table concludes this discussion … for now.
What parents want: Meeting four

I learned that participants create two types of documentation. The first kind of documentation is described as a ‘documentation panel’, created typically to capture a small-group project, such as The Dog Project. The other is called ‘daily documentation’. Daily documentation, as the name suggests, is created daily, and summarizes what the children do during the day. Participants explain to me that these two forms of documentation are typically not interconnected. Their differentiation between the two documentations is unusual for me, and I wonder for whom they are doing these two kinds of documentation.

At the end of our previous meeting, Noula brought an example of a daily documentation that corresponded with documentation panel we studied. So, we decided to study that documentation in today’s meeting. Noula’s documentation consists of two sheets of paper, 8 ½ by 11-inches, illustrating five black and white photographs accompanied by four text boxes. Noula tells me that this was the day that her preschoolers used herbs and spices to make a collage but as I look closely at the photographs, they capture different children participating in different kinds of activities that day. There is only one photograph documenting the collage experience.
Figure 12: Noula’s documentation #2

The first text box reads:

Austin, Finley and Jasper work together and build their own house. It’s cozy and comfy looking. When asked what they are doing in there, they reply, “Watching movies”! Blake immediately sits on the carpet, proclaiming he is ready to watch a movie now too.

The second text box speaks about the collage experience. It reads:

Under Ms. Noula’s direction, the preschoolers smell and feel the different herbs and spices. These herbs and spices include black pepper, oregano, cinnamon and parsley. Everyone has a turn gluing, pasting and decorating the storage box where the herbs will be kept. Blake does a super job with the glue!

On the next page, the third and forth text box highlights two other activities that happened that day. They read:

(3) Kelly and Gillian use food colouring to transform the white rice into pink. Gillian explains, “It’s working!” Kelly observes and patiently waits her turn.

(4) Through unspoken words, Angela and Dwayne build houses and towers with the foam building shapes. Dwayne builds a camera and takes a picture of his construction.
Agnes and Mabel quickly observe that the daily documentation illustrates activities that happened that day, one of them being the collage experience. Our discussion naturally flows to the photographs and text that speak about the children’s use of herbs and spices to create a collage. We want to examine closely this excerpt from the entire collage project that we read about previously. Surprisingly, Noula declares that this daily documentation does not tell much about the children’s experiences using the herbs and spices to create a collage. She explains:

NOULA: It’s not clear what the teacher is talking about. Just saying, “under teacher’s direction”, it’s not clear what the teacher talk about or how the teacher introduce the herbs.

MABEL: Or how the teacher is continuing the collage project. Or how this relates to the beginning [of the project].

NOULA: I [just] can’t say one thing; you need to connect the documentation before and [the documentation] now. You can’t just jump on.

Mabel and Nouala’s dialogue reinforces the growing realization that daily documentation of children’s experiences, such as this herbs and spices activity, should include more explicit detail.

But Noula reveals the main underlying challenge that prevents her from documenting in this way. She explains:

What we notice is that parents don’t have time to read or come in the classroom. This [daily documentation] is for inviting them to read only the summary. Some parents like to read, some like to see the pictures, so this thing can invite both of the parents. That way they are not wasting – not wasting, but spending- that much time, or saying, oh it’s too much to read I don’t’ want to read…If it’s short and big writing, then they read so fast, and know what their child did the whole day. Some of the parents want to know what you did the whole day.

Noula’s sentiments are quickly responded by Agnes, who also feels that parents will not read their documentation if they do not present it as a brief and concise summary. Agnes says:

Sometimes you don’t have time to read. Especially for parents, they come pick up the child and go home. Just as the teacher spends so much time doing the documentation, sometimes I think the parents don’t care, maybe because they are in a rush.
Participants seem to understand the value of showing children’s words, actions and thinking in their daily documentation; in fact, they want to move away from summarizing daily events in their daily documentation. However, they document the way they do because they feel that parents do not have time to read anything else. Participants believe that summarizing the day’s activity is the fastest and most effective way of communicating with parents about children’s learning experiences.

Noula also explains that they try to include as many children as possible in their documentation because most parents only want to see their child in the documentation. She says:

Every time parents come, I can say from experience, they are not really watching what others are doing. It’s [about] what’s my child is doing. If the child is there [in the photograph], then they might read it. But if not, they may or may not.

Unfortunately, documenting many children all the time takes away from observing one child in detail, especially if our aim is to understanding children’s meaning-making processes.

Participants agree that documentation that shows what children are doing, and why they are doing it is more interesting to read. Mabel explains:

Maybe you have more chance to understand that child, because you spend more time with that child. You have more time to catch a clue or a moment to understand that child. That’s why you can understand that more. I think it’s better to have one child than a group of children because you have more time to understand that child and be flexible.

However, when thinking about the reality of their circumstances, Agnes says, “Right now, we do from the point of view of the parents. It’s a little bit away from the philosophy”. Participants feel as if their hands are tied.

I acknowledge participants’ dilemma, knowing that this is real challenge for participants. As an encouragement and a provocation, I ask, “Would you be open to exploring an alternative way?” In my mind, I am hoping participants will still try a different way to document, despite
possible objections from parents. I ask participants, “Do you prefer to read a summary-style kind of daily documentation, or do you prefer to read documentation that invites you inside the child’s head?” Without a doubt, they prefer the latter. I suggest that perhaps parents may feel the same. Agnes takes a deep breath and volunteers to give it a try for next week.

**Developing Praxis in Early Childhood Education**

**Learning by doing: Meeting Five**

Agnes is the first to bring in a newly created documentation piece. Mabel gasps as Agnes presents not one, but two new pieces of documentation that she did just last week on Thursday and Friday. When Noula sees Agnes’ documentation, she is surprised too, teasing Agnes, “You did a new one after learning all these!” Noula is absolutely correct that by bringing a new documentation for us to study, Agnes has the opportunity to integrate some of the ideas we discussed in our meetings into her new documentation. Both of Agnes’ daily documentation focus on one child. I ask her to choose between the documentation on Logan and the documentation on Finley respectively because I want to give every documentation piece the time it deserves for careful study, discussion, and analysis. Agnes thinks carefully, and selects the documentation about Logan to study first.

Logan is the protagonist in this documentation consisting of five colour-printed photographs (Figure 13). The photographs are adjusted to the same size and aligned symmetrically against the left margin of an 8 ½ by 11-inch white sheet of paper. The text is typed, and is also aligned symmetrically next to the photographs. There are three subtitles in the documentation, reading, Picture 1, Picture 2 & 3, and Picture 4 & 5. Underneath each subtitle is brief description of the photograph, followed by the conversation between Ms. Agnes and Logan.
Figure 13: Agnes’ documentation #1

The documentation reads:


**Picture 2 & 3:** Logan puts all books away. Then he picks up some cushions from the corner and stacks them one after another on the floor. Ms. Agnes: Logan, you choose to use cushions. I see... What are you doing, Logan? You stack up those cushions. They don’t look like a bridge anymore. What are you building? Logan: A tower! Ms. Agnes: A tower! Is it a tall tower? Logan: Yes! A big one!

**Picture 4 & 5:** Ms. Agnes: Oh no! Your tower fell down! Are you going to fix it? Logan: Fix it. (But Logan picks up a yellow cup and attempts to leave the scene) Ms. Agnes: Logan, how about the mini carpets? Do you want to build a bridge with mini carpets? Logan: Yes! (Logan puts the mini carpets together) Ms. Agnes: What is it, Logan? Logan: A square! A bridge.
Our discussion begins with Mabel and Noula both eager to read and respond to the documentation. The documentation is current, completed just last week, and as Mabel and Noula immediately point out, Agnes’ documentation is different from their conventional ways of documenting.

NOULA: You know what, as soon as I start reading the first paragraph, I can tell that, we are discussing all this, and then you [Agnes] did it the documentation! It’s not what you used to do every time; I can tell that.

MABEL: Agnes did it this way in her documentation [panel], just in her daily documentation it is different.

NOULA: That’s the same with me.

MABEL: Yes. We all thought that the daily documentation is a snapshot, and you just try to catch something that happens during the day.

Recalling our study of Noula’s daily documentation in the previous meeting, Agnes’ documentation takes a new format towards doing daily documentation. First, she does not try to summarize the various events that happened that day. Instead, she focuses on the experiences of one boy named Logan. Agnes’ photographs are focused on Logan’s actions, his use of books to make a bridge, then, his use of cushions to build a tower, and finally, his use of mini carpets to rebuild a bridge. The text tries to capture Logan’s own words, illustrating the dialogue between Logan and Agnes.

I ask Agnes how she knew to have her camera, paper, and pen ready to capture this episode with Logan. She replies, “Oh, I just walk by, and oh, he did something…. SNAP”. She uses her fingers to create a frame, and pretends to take a photograph. It was just in our previous meeting that participants explained to me that they documented children’s thinking only during project work; they coined that kind of documentation, “documenting for the walls”. Agnes’ daily
documentation now reflects a growing understanding that documenting children’s thinking can happen anytime throughout the day, and not just for the walls.

Noula is impressed by Agnes’ new approach to documentation. At the same time, however, she has her reservations about the authenticity of the documentation. She suspects:

ALICE: It makes me wonder, when Agnes decided to document Logan, did she see this image [Picture 1], and that’s when she approached Logan. It’s almost as if she knew something was going to happen.

AGNES: Oh, I just walk by, and oh, he did something…. SNAP [pretending to take a photograph].

NOULA: No, she was so busy asking the question so she can get that documentation in the camera. Did you tell Logan to hold the cushion so I can get your picture?

AGNES (jokingly): No Madame. I didn’t do that.

The brief dialogue between Agnes and Noula is playful, as if they have all at one point staged a photograph for their documentation work. Agnes is not offended by Noula’s doubt, and Noula means no offence either. It seems that Agnes and Noula are pleasantly surprised by the quality of the documentation.

Noula’s doubts are understandable, considering that Agnes’ documentation has provoked a different way of doing daily documentation. She takes some time to process what she sees and what we have been discussing in our meetings. Thirty seconds later, Noula says:

After doing all these five meetings – sitting down, taking, and looking at Westside documentation and this [documentation], I actually find out what you [Alice] were talking about [regarding] the daily documentation. I was talking to one of my colleagues and I said the word you [Alice] were using [to describe our daily documentation] was “reporting”. And I said that’s really true. We’re just reporting about our day.

Mabel and Noula also wonder what this new way of documentation means for their own daily documentation.
MABEL: I don’t know… Do we do the daily documentation like this all the time [focusing on just one child], or just once a while we do it like this?

ALICE: Well, which is more fun to do? Which is more fun to read?

MABEL: I say both fun to read… oh, I don’t know…

NOULA: It’s not that… Oh, I can’t say that… Because if you have a child so quiet and you don’t have him in [the documentation]…

From their conversation, Mabel and Noula remain unsure when they should shift their documentation from focusing one child as opposed to as many children as possible. Mabel seems to want to maintain her conventional ways of document, believing that the documentation of many children will still enable her to make visible children’s thinking. For Noula, the issue is about equally representing all children in the documentation. She fears that the “quiet children” will be underrepresented.

Then, Noula suddenly realizes for herself the value inherent in focusing her observations on mainly one child. She reflects aloud:

I went to the Reggio workshop two times, and the exhibition [The Hundred Languages of Children Travelling Exhibit], and everything. Whenever I see the panel, I have a lot of questions.

But after looking at all these things [documentation we studied together], and asking detailed questions from all of us, I have a little bit clear reason why I always just see one child in the panel. That time I had the question, “What are the other children doing?”

But after looking at all this [documentation we studied together], I see you are looking at this child in detail, whatever is happening, it’s happening, you just focus on one child.

Noula always wondered what other children were doing in the classroom since most advanced documentation shows mainly one child’s thinking process. It never occurred to her that other children might also be participating in the learning experience, however, it was the intentional
choice of the teacher to document the words and actions of one child because she wanted to look more closely at the thinking and learning processes of that child.

Participants now seem to agree on creating daily documentation that is focused on children’s learning. Mabel quickly points out, “Now we have to go back to our co-workers and tell them to look another way!” Participants recognize that how they document impacts how they observe and interact with children in the classroom. If they continue to document the “old” way – summarizing the day’s activities – then they overlook the importance of studying children’s thinking.

**Focusing on children’s thinking: Meeting six**

Agnes was hoping to create a new piece of documentation again this week so that we could study it. However, she did not have time because it was her week to do cleaning in the classroom. So, she brings with her the documentation about Finley, which she showed us in a previous meeting. Agnes looks forward to our discussion because she purposely experimented with two different styles of documenting. She says, “I think this [documentation of Finley] is another way to do the daily documentation. So, maybe, let’s see”.

Indeed, Agnes’ documentation of Finley differs from her previous documentation of Logan. Immediately, I observe that the photographs are laid out differently, and the text is not presented as a dialogue between the teacher and the child. There are two photographs on the top, and two photographs on the bottom reading from left to right. The protagonist, Finley, is playing with a water spray bottle in the playground (Figure 14).
Figure 14: Agnes’ documentation #2

The documentation text reads:

*Picture 1:* Finley gets a spray bottle. He sprays everywhere! The teacher asks him not to spray at people. Finley replies, “O.K.!” *Picture 2:* Finley sprays in the bin. Ms Agnes asks, “Finley, what are you doing?” “I, I spray water!” says Finley.

*Picture 3:* Later, Finley turns the spray bottle towards himself. He sprays on his face and laughs. Finley says, “I spray my face! That funny!”

*Picture 4:* Ms Agnes: The plant is thirsty. Can you give it some water to drink? Finley: Thirsty? They want water! Finley walks over and sprays on the plants for about ten seconds. Then he starts spraying on other spots.

Mabel is absent today, and so Agnes and Noula begin the discussion. First, Noula responds to the documentation, and then, Agnes responds. Sometimes, I offer my observations but I do not want to interrupt their dialogic flow; it seems that they share a rapport that moves the discussion forward. Noula begins with Picture 1, Textbox 1, which reads, “Finley gets a spray
bottle. He sprays everywhere!” She explains that the documentation is not clear about what other things Finley sprayed before the teacher asked him not to spray at people: “It says *everywhere*, but it’s not clear where”. Noula suggests that we can ask better questions to understand what Finley is thinking:

**NOULA:** If we can ask something else, instead of, “Finely, what are you doing?” Because we can see what he is doing [from the pictures]. Instead, ask him, “What can you see when you spray? [or] What do you feel on your face?”

**AGNES:** As Noula says, I can see that some dialogue just stop in the midway. Or even in the beginning, it [the conversation] doesn’t continue. You can ask more questions. You don’t need to show so many pictures. Just pick one or two, and focus on that picture and tell us what happens.

Noula then focuses on Picture 2, Textbox 2, and suggests that we should find out what Finley saw when he sprayed the water. Did he see the ripples caused by the impact of water from the spray bottle? Also, in Picture 3, Textbox 3, Noula suggests asking Finley “Why do you think it’s funny?” She hypothesizes that Finley might say, “Oh, the water is on my face” or “Oh, I get wet”. Finley’s words would explain what he is thinking and why he is laughing.

Agnes also sees that her responses to Finley, at times, interrupted his exploration with the water spray bottle. The questions she asked seem to redirect him towards another area of exploration, without giving him sufficient time to explore, or her the opportunity to follow his thinking process. Already from last week, Agnes was questioning her overbearing influence on Logan’s building of the bridge. She noticed that she seemed to be directing Logan’s play, controlling what he should build, and what materials he should use. She recalls how she just wanted Logan to make something so that he would not use the books to build a bridge and step on the books. Now, studying the documentation of Finley, Agnes is shocked to see is directing how Finley should use the water spray bottle but in retrospect, from our discussions, Agnes understands how she might have approached Logan and Finley’s exploration differently.
Following children’s inquiry: Meeting seven

For our final meeting, participants asked to see what teachers at Westside Preschool were doing with their documentation. Noula explains, “If we can see day one, day two, and then the panel, we can see how they all connect. It would be helpful”. Responding to their request, I prepare the three documentation pieces and the documentation panel that Angela and Sandra created.

Participants first study the three documentation pieces (Figure 15). Agnes comments that the photographs are large enough so that she can see the infants’ exploration very clearly. Mabel remarks that each documentation piece has a title (e.g. Megan’s Curiosity of the Tunnel), instead of just the date as a title. Noula adds, “I really like the titles. It tells me a curiosity… makes me ask what happens to Megan”.

![Figure 15: Angela & Sandra’s three documentation pieces](image)

I ask participants what they think Angela and Sandra are trying to convey in their documentations. Agnes remarks, “The first one [Megan’s Curiosity of the Tunnel], the documenter writes what she saw. She didn’t put any subjective comments. But the second one [Megan’s Exploration of the Tunnel], the documenter has both subjective and objective
comments”. Mabel and Noula agree, and they discuss how these comments impact their understanding of the documentation pieces.

NOULA: With both the documenter is trying to show how Megan explored the tunnel. In the beginning she tried to understand Megan’s hand, her right hand. She putting her body half way. Very small details are documented.

It’s two different days; the documenter did not stop that activity. She opened it [the tunnel] again and tried to figure out what Megan did before and now. The documenter is trying very hard to understand how she explored that same toy after a couple of days.

MABEL: I think the documenter is trying to focus on the tunnel instead of the one child. In the beginning, I thought she would focus on Megan but when I read documentation #3, I find out the whole thing is not about Megan. Maybe the whole thing is [about] how the children responded to the tunnel.

Mabel’s observation prompts me to reveal that Angela and Sandra had initially intended to focus their documentation on Megan. However, the third time that Angela and Sandra brought the tunnel out in the classroom, Megan, who was sick for several weeks seemed to have forgotten about the tunnel. Thus, they documented how other children interacted with the tunnel.

I ask Mabel that if she was to create a panel, what would she say? She responds, “If we were to look at the documentation individually, then it would be [a panel about] Megan. But [the three documentation] linked together, it would be [a panel about] the tunnel exploration”. Agnes and Noula agree, illustrating a shared understanding that a panel is supported by ongoing observations, which collectively interpreted, create a rich story to share. This is very significant since in our earlier meetings, daily documentation and a documentation panel were viewed as two unrelated kinds of documentation.

I show them Angela and Sandra’s panel to participants, and immediately, they see that they chose to focus their documentation panel on Megan. Instinctively, they understand that the panel wants to communicate Megan’s investigation of tunnel. The documenters want us to focus
on how Megan explores the tunnel. Mabel comments on the revised title, “Touching, Reaching, Smiling, and Extending”, and remarks that it is a better title because it highlights how Megan explores the tunnel. “It captures the essence of the documentation panel”, Mabel says. Participants also compare the three documentation pieces with the panel. Mabel comments, “They use the same pictures. They just choose another way to represent it. They add their interpretation, and then what they saw”. Mabel is referring to the questions above each photograph (e.g. How does this thing work? If I put my arm inside what will happen?).

Noula is very impressed by the changes in Angela and Sandra’s writing. She also notices the added questions above each photograph in the panel seems to invite readers inside Megan’s head. Noula elaborates, “The panel gives you some question marks. It’s good to think, and for teachers to think about how to extend this experience”. It was just several meetings ago that Noula’s documentation mainly reported on what children did. Her current remarks about the power of questions to stimulate thinking among teachers are significant.

Studying Angela and Sandra’s documentation was a culminating experience for participants, such that many things they learned in this research study, such as how to effectively make visible children’s thinking, were represented through Angela and Sandra’s panel. They also had the opportunity to see how Angela and Sandra revisited their daily documentation to gain a deeper understanding of Megan’s experiences over an extended period of time. As Mabel points out, if the panel just showed Megan’s first exploration of the tunnel, I might not have understood the importance of showing Megan’s exploration. However, with the two documentations put together, “I get it… Megan tries to explore until she feels comfortable to go inside. That’s meaningful!”
Next Steps for Teacher Learning
In our total seven meetings, Agnes, Mabel, and Noula met regularly to study documentation and develop new understandings about teaching in their early childhood classroom. In the final interview, participants all agree that the opportunity to study documentation together is an invaluable experience. It is an opportunity to listen to each other’s opinions, and to develop your own understandings. Mabel elaborates, “When we talk together, it’s an opportunity to find out how to represent the children. I felt that everyone had a different point of view. Everyone raised their point here, giving you another thought”. Then, Agnes continues, “I think we’re quite open mind too. We don’t really mind [constructive criticism] because we’re not perfect; we are still learning and so we accept. We really don’t have this chance to sit and do something more professional, like this”.

Participants reflect more deeply on what they have gained learned through their collaboration. Coincidently, Mabel and Noula both speak about their shift in thinking about the practice of documentation. Mabel and Noula explain that before our meetings, they always viewed the practice of documentation as a single event. However, now, documentation is not just done, and then, is finished. Rather, Mabel asserts, “For me, documentation starts from a daily basis, not just trying to the moment”. Noula agrees, and adds, “Even if you’re done once [the documentation], go back and look. Go back and look, and have a discussion about that documentation: How you can change, how you can add?”

For Agnes, the experience of studying documentation collaboratively was a direct opportunity for her to revisit her own teaching. She says, “Remember the documentation I made of Logan. It was more teacher-directed. He has to follow my steps and fulfill what I wanted him to do. I realize that I limit him and pull him back”. Studying the documentation together, Agnes continues, “We have a chance to refresh our minds and see how we work with children”.

121
In fact, participants’ learning is quite interconnected. Mabel and Noula emphasize the importance of seeing the practice of documentation as an ongoing process, inferring as well, that they as teachers need to grow continually. Agnes articulates the importance of life-long learning when she highlights how revisiting her own documentation with her peers helped her realize her own limitations as a teacher.

As the research study officially comes to an end, Agnes, Mabel, and Noula must consider how they will continue their professional learning beyond this research study? Especially since participants teach in different classrooms, they will need to consider how to share what they have learned to their respective co-teachers. Mabel quickly points out, “Now we have to go back and convince everyone. We have to go back to our co-workers and tell them to look another way [to see documentation as we now do]”.

Mabel’s comment reflects an immediate obstacle, since participants believe that their colleagues, as well as the parents, will not understand the reasons for changing their approach to documentation. As a final thought, I encourage participants to think about how they might overcome the differing opinions of colleagues and parents, as well as other issues such as time and resources. Participants do not have an immediate response, but they are hoping to continue to integrate what they have learned into their everyday teaching.

**Summary Statement**
Chapter Five portrays Agnes, Mabel and Noula’s study of documentation over the course of seven meetings. In our first meeting, I prepare the documentation, *A Whole New World* (Wong, 2006) for Mabel and Noula to discuss. This meeting provides an introductory idea of what we will do in this study, and how we will study documentation together.
In the next three meetings, Mabel and Noula bring in their own documentation. They both decide to present older documentation, which they created in the past. In the fifth and sixth meeting, Agnes breaks this pattern and brings in new documentation. I can see that Agnes has purposefully incorporated particular features in her documentation, which participants had discussed in previous meetings. Finally, in the last meeting, participants decide to study the documentation that Angela and Sandra created. They are curious about how their peers at Northview Preschool document. Seeing Angela and Sandra’s documentation motivated Agnes, Mabel and Noula to revisit their own documentation practices.

In Chapter Six, the final chapter of my dissertation, I will reexamine and piece together the meaning of participants’ experiences, including the experiences of Angela and Sandra whom we studied in the previous chapter. I will also focus on the implications of participants’ experiences for teacher learning in childcare and other early childhood settings.
CHAPTER SIX

DISCUSSION

Overview of the Study
This research set out to simultaneously explore two distinctive and related issues in early childhood education: (1) the effects of forming teaching learning groups to study pedagogical documentation in Canadian childcare contexts; and (2) the effects of social learning on inspiring new teacher action and practice among early childhood educators. The essence of pedagogical documentation as a tool to make children’s thinking visible, and thus, open to the possibilities of dialogue among teachers is developed in the early childhood schools of Reggio Emilia, Italy. Internationally, many educators have adapted pedagogical documentation into their everyday teaching, mindful that this practice is not a blueprint for teacher inquiry but a catalyst to systematically reflecting upon our teaching.

In this study, participants included two groups of early childhood educators teaching at two respective Reggio-inspired childcare centres in Toronto, Canada. I conducted six to seven research meetings with participants to study pedagogical documentation in teacher learning groups. Studying documentation was a springboard for critical reflection and discussion of pedagogical issues. Intentionally, I adopted Lawrence-Lightfoot’s (1983) portraiture methodology, using multiple data forms including videotaped research meetings and interview, participants’ documentation work, and my field notes to create detailed thick descriptions of participants’ talk, social interactions, and thinking and learning processes. This kind of social learning among early childhood educators is rarely seen or documented, rendering the “portraits” in this study original and worth portraying.
This study was guided by a primary research question, which asked: *What happens to teacher learning when early childhood educators form teacher learning groups to study pedagogical documentation in childcare settings?* Secondary questions were developed to help me look more closely at participants’ experiences in this study. In this last chapter, I provide a summary of the findings guided by these research questions. Then, I examine the significance of these findings – What is to be learned from this study? I focus on three main categories, namely: (1) Skills of pedagogical documentation, (2) Teacher learning; and (3) Teacher collaboration. This final chapter and the dissertation conclude with a section on the implications and limitations of the study.

**Summary: Review of the Research Questions**

I return to the main research question for this study: *What happens to teacher learning when early childhood educators form teacher learning groups to study pedagogical documentation in childcare settings?* As demonstrated in my findings and discussion chapter, teacher learning evolved mainly through four areas of development: (1) Collaboration among participants in their respective teacher learning groups (i.e. participants needed to feel safe and confident before fully engaging in critical dialogue and reflection upon pedagogical documentation); (2) Participants experienced a process of deconstructing taken-for-granted assumptions and practices about pedagogical documentation. These beliefs hindered participants from exploring new teacher knowledge and practices that would promote teacher learning; (3) Adopting a “learning by doing” attitude, participants developed questions and hypotheses, designed experiments and tested out ideas, and pursued inquires until there was an alignment of behaviours, a modification of personal theories, and a shared understanding was developed; and (4) As the research study
came to a close, participants contemplated creative ways to continue their professional
development through the study of pedagogical documentation in teacher learning groups. These
areas of development exhibit participants’ learning in this study, answering this broadly framed
research question through the portraiture and documentation work.

Four underlying questions were designed to closely examine this main research question.
I summarize the findings of each underlying question, beginning with: *What is the role of
teacher learning groups in participants’ learning?* Participants’ experiences in teacher learning
groups resulted in many positive learning experiences, which participants believed would not
have been realized if they studied pedagogical documentation individually and independently. In
the words of Sandra, “Documentation is collaboration!” Participants felt that overall, teacher
learning was more effective (and fun) in teacher learning groups, where interpretive theories
about pedagogical issues were discussed and solutions were collaboratively negotiated and
found.

The second underlying question asked: *What is the role of pedagogical documentation on
participants’ learning?* Participants developed various skills of documentation, and the ongoing
effort to produce rich documentation caused participants to slow down and observe, and to
appreciate the deeper meaning and value of children’s gestures and speech. In parallel, as
participants produced documentation that made visible children’s thinking, their reflection upon
that documentation with colleagues was enriched. The multi-layered characteristics of
pedagogical documentation as an artifact, an interpretive piece, and a shared reflective tool were
demonstrated in this study. These unique features of pedagogical documentation collectively
contributed to facilitating and sustaining participants’ learning.
The third underlying question was: *How do participants construct new teacher knowledge by studying pedagogical documentation in teacher learning groups?* Once participants became reasonably skilled at creating pedagogical documentation, their collaborative reflection upon that documentation was pivotal to co-constructing teacher knowledge. First, documentation served as a mirror to participants’ teacher practice, provoking critical self-reflection on one’s teaching in relation to children’s learning. Secondly, teacher learning groups created a space where participants could study pedagogical documentation to talk into clarification of ideas, unravel cognitive knots, and listen attentively for provocations that would disrupt but strengthen current teacher knowledge and understandings about children’s learning and teaching practice. Finally, outside of our research meetings, some participants turned their classrooms into laboratories where they would test out hypotheses, confirm or disprove theories, and implement revised teaching strategies; correspondingly, the results of their experiments further strengthened their reflections.

The fourth and final underlying question asked: *How does teacher knowledge developed in teacher learning groups translate into new teacher action and practice?* This question is closely linked to third underlying question. As demonstrated by participants, a key component of teacher learning was to participate in the ongoing, recursive, and complementary processes of doing and thinking. Yet this study found that when participants documented and focused discussion on pedagogical issues and concerns that were in progress, the motivation to seek an appropriate balance between theory and practice was much higher than if teachers pondered on issues of the distant past. For instance, Angela and Sandra persistently sought to make sense of the infants’ investigation of the tunnel. Similarly, in Agnes’ documentation of Logan, she kept referring back to how she could have supported his creative methods of building a bridge.
(1) Discussion on Skills of Pedagogical Documentation

This study showed that pedagogical documentation, as a tool for shared reflective practice, is most effective when participants develop the skills to document children’s thinking and learning processes. Documentation skills developed when participants began to question the taken-for-granted assumptions surrounding pedagogical documentation. This opened up new ways for participants to practice documentation, generating richer documentation that made visible participants’ observations and interpretations of children’s thinking processes for further reflection and discussion among colleagues.

Questioning the taken-for-granted

Fosnot (1989) argued that most teachers do as they are taught, and as such, teachers rarely questioned why they did what they did in the classroom. In this study, for participants to step outside of the conventional top-down, hierarchical approach to teacher development and become familiar with, and confident in, seeking, following and developing inquiry topics to explore with their colleagues, involved raising questions about current unquestioned and taken-for-granted pedagogical assumptions and practices. For instance, when participants studied the documentation panel of Abby exploring the science viewer, they realized how different this documentation was from their own documentations, and subsequently, were prompted to consider what was “proper” documentation. Questioning the taken-for-granted was an important milestone towards developing a strong topic of teacher inquiry to explore together (Seidel, 2001b).

Participants wanted to find out what was appropriate/inappropriate documentation. They questioned whether they documented correctly, but more importantly, who decided what was proper documentation. Addressing this topic led participants to closely reflect upon their own
taken-for-granted practices: “I was taught to be objective, and so that is how I approach documentation” (Research meeting, July, 2010). Another participant, still grappling with the different approaches to documentation wondered, “Can we consider other ways of documenting? Is that allowed?” Participants’ surprise is consistent with Lenz Taguchi’s (2000) notion of “deconstructive talk”, that in dialogical learning, teachers need to talk their way into seeing assumptions, false premises, misapplication and ambiguities in communicative contents.

I highlight another example of “deconstructive talk” when Agnes, Mabel, and Noula explain that parents preferred to read a report of daily events rather than documentation making visible children’s thinking processes. When participants were asked whether they preferred to read daily reports over pedagogical documentation, their discussions led them to realize that they preferred to read pedagogical documentation… this suggested, then, that parents might also prefer reading pedagogical documentation. Participants’ discussions indicate that the more often they asked themselves what was acceptable or unacceptable in the practice of pedagogical documentation, the more they had the opportunity to articulate their reasons for good documentation. When teachers can make their decision-making processes explicit for further discussion and inquiry, they construct new teacher knowledge and practices (Crochan-Smith & Lytle, 1993, 2001). Interestingly, for this to occur, participants first had to deconstruct their unquestioned, taken-for-granted teacher knowledges and practices, for instance, whether or not documentation has to be presented objectively (e.g. “appears to be”; “seems to be”).

In the final interview, Angela and Sandra expressed that being able to experiment is fun too; before this study, they felt like there was a lot they could not try or do. But now, if someone challenges them on why they present their documentation a certain way, Angela and Sandra can confidently respond: “We can say that we spent a whole hour thinking about it”. These
sentiments, also shared by Agnes, Mabel, and Noula imply purposeful critical reflection upon documentation and teacher practice. The key word is purposeful, because when teachers intentionally seek to use documentation as an ongoing basis for reflection and projection, they develop a sensitivity to knowledge that goes beyond knowing and implementing a technical skill (Rinaldi, 2006). Significantly, teachers can develop a reflective “stance” (Crochan-Smith & Lytle, 2001) that propels them to work together with children and their colleagues to follow the knowledge building process and make visible those processes for reflection and discussion.

Documenting to communicate

In the schools of Reggio Emilia, teachers systematically document the process and results of their work with children to make pedagogical experiences visible and thus open to other possibilities of interpretations and multiple dialogues among children, adults, parents and other pedagogues (Edwards, Gandini & Forman, 1998). Malaguzzi (1998) also asserts that at the core of all social beings, we have a desire to be heard, to have our theories listened to, and to receive feedback that inspires us further grow in our competences. For participants in this study, wanting to have their voices heard was equally important, involving active processes of listening for feedback and documenting with the intent to communicate with others.

Early in our research meetings, a common frustration for participants was to realize that others were unable to understand the intent of their documentation. They expressed surprise by how others’ perceived their documentation work. In participants’ own view, their documentation clearly presented and communicated their interpretations; however, listening to how others understood their documentation revealed jarring discrepancies. For instance, Mabel repeatedly tried to explain that the photograph had misled Agnes and Noula to think that she was holding the magnifying sheet. This seemed to provoke participants to consider what they could do to
have others to see what they saw, and to share the excitement and humility they felt when they observed children’s intelligent and complex thinking processes. This kind of thinking is significant, what Dewey (1938) explained as the initial motivation for teachers to seek out answers to improving teaching.

In this study, Angela and Sandra were adamant that they create documentation that would invite readers into Megan’s head, even if it meant trying out new ways of representing children’s thinking through their documentation. Angela and Sandra recalled how they wondered whether their colleagues would accept their decision to remove “appears to be” and “seems to be” from their documentation. Similarly, Agnes recalled how she was at first hesitant to focus on just one child in their documentation because parents typically wanted to see their own child. Participants’ willingness to accept the uncertainty that this change in documentation practice might bring is, according to Rinaldi (2006), an act of respect for learning.

The implications of developing strong documentation skills reflect a deeper desire to communicate ideas about issues of teaching and learning and to anticipate responses from others. Although not directly observed in this study, Malaguzzi (1998) argues that when teachers prepare a steady flow of quality information targeted to parents (but also appreciated by teachers and children), parents are introduced to a quality of knowing that tangibly changes their expectations. Parents reexamine their assumptions about parenting roles and their views about the experiences their children are living, taking a more inquisitive approach toward the whole school experiences (p.70).

Rich pedagogical documentation also provokes and generates deeper discussion and reflection upon issues of teaching and learning. This is consistent with Clark’s (2001) idea that good conversations demand good content, something worth talking about. In this study, “good”
content meant that as participants created better documentation, less time and effort were used to clarify the content of the documentation, and participants’ dialogue upon that documentation became more focused on exploring and understanding the pedagogical significance of the documented episode.

Ultimately, the relationship between documentation and discussion became reciprocal. When teachers develop stronger awareness and understandings about what happens in the classroom, their construction of pedagogical documentation correspondingly improves to depict a deepened appreciation for learning encounters (Malaguzzi, 1998; Rinaldi, 2006). This study clearly indicates that quick formulas and strategies for developing strong documentation skills do not exist, but instead demand ongoing reflection and discussion with colleagues, educators, and parents.

(2) Discussion on Teacher Learning
Investigating teacher learning is a key component of this study. I found that when participants examined issues relevant to their own teaching and learning, shifts in thinking (i.e. values, beliefs, and perceptions) were more likely. First, in this study, the use of the Collaborative Assessment Conference Protocol (McDonald, 2001) was significant to transforming participants’ perceptions of children’s daily experiences. Secondly, a willingness to reflect upon and change one’s thinking is necessary before new teacher action and practice develop. For instance, when Angela and Sandra revisited their documentation of Megan’s curiosity towards the tunnel, reflection upon their teaching resulted in a mutual decision to reintroduce the tunnel into the classroom. Finally, consistent with the educational theories of progressive educators (e.g.
Dewey, Piaget, Vygotsky), learning by doing was an effective teacher learning approach in this study.

**Transforming perceptions using protocols**

Prior to conducting this research study, I anticipated that the Collaborative Assessment Conference Protocol would be useful in guiding participants to study pedagogical documentation. It was the Protocol used by teachers at the St. Louis-Reggio Collaborative to study documentation in teacher learning groups. What I did not expect was participants’ endorsement of the protocol as *essential* to their study of pedagogical documentation. Participants made copies of the guiding questions in the protocol to share with their colleagues. It became visible to me that the protocol not only guided participants’ engagement with the documentation and with each other, but that its use seemed to give participants a new lens in which to see daily learning experiences with children.

I wondered how the protocol supported participants’ learning, remembering that just several meetings ago, it was hard work to sequentially follow the questions in the protocol that sought to suspend judgment to enable a deeper study of the documentation. It seems that when participants became more familiar with the purpose of the protocol, and accepted its effects of slowing down the interrelated processes of observation, interpretation and analysis, they opened up to the idea that documentation provides rich data for enhancing understanding of thinking and learning processes. In this sense, participants looked for (and expected to see) the deeper meaning and value of the learning experiences captured through the tool of pedagogical documentation (Goldberg & Smith, 1997; Gambetti, 2001).

I vividly recall Sandra sharing her first documentation with Angela and me. Her documentation of Megan’s curiosity of the tunnel originally read, “Megan begins by placing her
right hand on the rim of the tunnel. She then reaches with her right arm into the tunnel…’’. However, after our discussion, Sandra noted to herself, ‘‘Of course she [Megan] is placing her right hand on the rim of the tunnel. It’s obvious from the photograph’’. This comment suggests that Sandra realized there was likely more significance to Megan’s action of placing her right hand on the rim of the tunnel, and subsequently, her entire arm into the tunnel. Approaching this episode with greater sensitivity to knowledge building, Angela and Sandra chose to look more deeply and closely with the intent to understand Megan’s gestures and behaviours.

Malaguzzi (1998) suggests: ‘‘Stand aside for a while and leave room for learning, observe carefully what children can do and then, if you have understood well, perhaps teaching will be different from before’’ (p. 82). Significantly, in this study, ‘‘opened my eyes’’ was a common phrase that participants used to describe how the protocol served to slow down their observations and step-by-step guided them towards gaining a greater appreciation of the learning experiences that was made visible in the documentation. Earlier, a participant commented that documentation was a chore, but now, trying to understand the meaning making behind children’s gestures and speech was now a key part of her everyday teaching.

Critical self-reflection

A strong philosophical image of children will work to shape teachers’ values, beliefs and actions, having direct implications on the century-old question: What kind of teachers are needed by our children – those real individuals in the classrooms today? (Edwards, 1998; Hyun, 2006; Spodek & Saracho, 2003; Tzuo, 2007) In this study, participants acknowledged and accepted the Reggio image of children as competent, powerful, active protagonists of their own learning. However, what this image meant in relation to their own teaching required further investigation involving
the use of documentation as rich data for critical self-reflection upon teacher action and practices.

“We are our own worst critics”, participants often said. They referred to the study of their documentation, explaining that the opportunity to bring in their documentation for discussion with each other in our research meetings meant re-viewing their documentation. Working individually, participants confessed that they were more concerned with making the documentation presentable; the content was generally undervalued. However, working in teacher learning groups prompted participants to see their documentation as a form of rich data for teacher learning and development.

When Agnes revisited her two documentations of Logan and Finley with her colleagues, she was troubled by her own teacher-directedness towards Logan and Finley’s play. Her words and actions contradicted her view of her teaching as facilitating young children to develop and explore their own inquiries. She reflected upon her role in Logan and Finley’s exploration, “I realized I limited him [Logan/Finley], I pulled him back”. Openly, Agnes grasped with this inconsistency together with her colleagues, wondering aloud what she could have done to better scaffold Logan and Finley’s learning. Agnes, Mabel, and Noula collaborated to try to understand the intent of Logan and Finley’s gestures and speech. When satisfied with their theory, they worked together to brainstorm different strategies to design a learning experience that would be more complex, involving and arousing for Logan and Finley. This supports Malaguzzi’s (1998) view that reflective inquiry facilitates teachers to bring alignment between teaching values with actual teaching in the early childhood classroom.

I also highlight how important it was that Agnes not only saw our research meetings as an opportunity to receive constructive feedback on her documentation, but also to re-analyze her
documentation again with the added input from her colleagues so that she could revisit her own interpretations. Rinaldi (2006) asserts that when teachers carefully select an incident to document, they are daring to see the ambiguities of teaching and learning. Using documentation as a mirror to teacher practice has implications for supporting rich, critical reflection upon our teaching of young children (as well as our own learning with and from children). For Agnes in this study, collaborating with colleagues to study her documentation of Logan and Finley meant examining observations and interpretations that would not have been realized independently or explored with such depth by her alone. When teachers use pedagogical documentation as the basis to re-verify, re-interpret, and revise their own practice, teachers can develop a deeper, more critical understanding of one’s pedagogy (Dahlberg, Moss & Pence, 1999).

Learning by doing

In this study, all participants had the opportunity to bring in documentation for the group to study. When participants brought in documentation they had very recently produced, discussions and reflections seemed more dynamic and intense (e.g. study of Agnes’ documentation). This led me to wonder about the influence of “new” documentation on teacher learning and development. From participants’ experiences in teacher learning groups, I observe Schön’s (1983) theory of learning, that “Doing and thinking are complementary. Doing extends thinking and reflection feeds on doing and its results” (p. 280).

Undoubtedly, when teachers bring in new documentation for their colleagues to study, the “new factor” typically has a stimulating effect (Wilson & Berne, 1999). For instance, in this study, when Agnes brought in a new piece of documentation and sought for Mabel and Noula’s feedback, they felt important that their comments mattered. Participants seemed to realize that their discussions could impact the re-interpretation of the documented incident.
For Agnes, presenting her new documentation to Mabel and Noula was equally exciting because she knew that her documentation produced a “visible” classroom episode that she and her colleagues could discuss. Their discussions had an immediate purpose of helping Agnes to make informed decisions about how to proceed next. The complementary processes of doing and thinking seemed more coherent, and it was reasonable to keep on reflecting and projecting to see how experiences will begin to take shape.

Angela and Sandra also experienced the synergy resulting from the complementary processes of doing and thinking, which they described was analogous to watching a television drama and being kept in suspense about what would happen next... a cliffhanger. Only in this study, Angela and Sandra were directing the movie together with children. They recalled the many questions they asked themselves in the research meetings, “Should we reintroduce the tunnel again? Everyday or just once a week? In the classroom or outside in the playground?” Every week, Angela and Sandra documented the infants’ exploration of the tunnel, and used their documentation to inform next steps.

Cyclically, the decisions that Angela and Sandra made in the research meetings were then tested out and applied in the classroom. “When we reintroduced the tunnel, we were ready with our pen, paper and camera. We wanted to see what the infants would do with the tunnel”. Participants seemed to change from teaching children to studying children, and through studying children, learning with children (Forman & Fyfe, 1998). Significantly, ongoing documentation helped participants to understand the impact of their interventions and subsequently, how to proceed on this learning course with children (Dahlberg et. al., 1999; Gandini & Goldhaber, 2001; Hill, Stremmel & Fu, 2006).
This study suggests that creating new documentation serves as a springboard for further teacher inquiry. Rinaldi (2006) noted that teachers specifically and intentionally select what to document because they want to invite others to make sense of the documented episode. This study further suggests that the study of pedagogical documentation in teacher learning groups goes beyond a series of professional development opportunity, or a “workshop” focused on discussing isolated pieces of documentation work. Rather, teacher learning and development are most effective when pedagogical documentation is created to support reflection on current practice.

(3) Discussion on Teacher Collaboration
This study found that forming teacher learning groups to support teacher collaboration required more than a gathering of teachers within a shared time and space (Clark, 2001). Instead, teacher collaboration leading to teacher learning involved anticipating of the needs of participants, which in this study involved critical supports in a school system, a group facilitator, and mindful expectations.

Critical supports in a school system
Effective teacher learning and development calls on teachers to follow their own questions, to work from their current knowledges and understandings, and to pursue inquiries meaningful to their growth as teaching professionals (Crochan-Smith & Lytle, 1993, 2001; Dewey, 1938; Liberman & Smith, 2001; Schön, 1983). Yet for teachers to do this effectively, critical supports in a school system are necessary. In this study, sustained and flexible meeting times for the study of documentation were key critical. Teacher learning was directed by teacher inquires rather than predetermined lesson plans and schedules.
This study with participants from Westside and Northview Preschool was initially planned for four and six research meetings respectively. Once our meetings began, and participants developed teacher inquiries to pursue (e.g. Angela and Sandra’s creation of a documentation panel), they realized that their allocated meetings for teacher development had expired. Interestingly, participants did not consider asking for additional time, likely reflective of a tradition where (teaching and learning) plans are fixed and unchangeable (Slattery, 1995; Wien, 1998).

When I proposed to participants that I had the support of their childcare supervisors to follow their learning and increase the total number of meetings, participants began to envision a more flexible view of planning in teacher learning and development. Realistically, the number of meetings necessary to build strong teacher learning groups is dependent upon participants’ familiarity with teacher inquiry as professional development, and will vary between different teachers and childcare settings. It is better to begin with a tentative number of meetings and collaboratively decide how to proceed as each meeting unfolds.

For Angela and Sandra, teacher development meant that they would continue to collaborate on documentation by first creating a working draft for Angela/Sandra to reflect, make changes, and finalize. Then, in the classroom, by email, or by phone, Angela and Sandra would collaboratively study and analyze the documentation to inform next steps and new understandings. Participants’ creative solution reminds me of Gandini’s (1998) thoughts on the use of time, that it is rarely ever about the amount of time that one has but rather how that time is prioritized to support teaching and teacher learning.

Critical supports negotiated and implemented collaboratively among the childcare director, supervisor, teachers, and parents have strong implications for reinventing new models
and expectations for professional development in early childhood education. Importantly, teacher development is never only about what teachers learn but also about cultivating highly skilled and knowledgeable teachers to stimulate and enhance greater student experiences and learning for young children (Bredekamp & Copple, 2009; Doherty et. al., 2000; Meier & Henderson, 2007; McCain & Mustard, 1999).

**A group facilitator**

Facilitation is a voluntary relationship; it is something you do with teachers and not to teachers (Jones, 1993). An important result of this study reveals the initial unfamiliarity with collaboration and the subsequent need for a group facilitator. Collaboration is not an intuitive process that eventually develops when teachers participate in learning groups. Instead, using pedagogical documentation as a tool for shared discussion and reflection involved facilitating the reciprocity of ideas and, communication and interdependency in teacher learning groups. Ultimately, it meant facilitating autonomy among participants to sustain their professional learning.

Early in the data collection phase, participants namely focused on conveying and developing their own questions and ideas. In their view, they wanted answers to these questions that they wondered about. As I observed participants’ dialogue in their teacher learning groups, I asked myself if and how to facilitate collaboration so that participants could develop common starting points for deeper discussion and reflection upon pedagogical issues. Moreover, where was the line drawn between facilitation and imposition? My dilemma resonates with Dewey’s (1938) observation that to promote learning through collaboration is a much simpler task in
theory because it is in harmony with the principles of growth, but to operationalize the processes remains a complex and arduous task.

My role as a facilitator in this study went beyond facilitating strong collaboration that promoted and sustained teacher learning. Instead, reflecting upon my experiences in the two teacher learning groups, I realized that a strong facilitator is one who is attentive to the emotional needs of its members, and responds to those needs to the best of his/her ability. In this study, the needs of participants’ varied and as such, my role as a facilitator was complex. For instance, when Mabel felt misunderstood by her colleagues, my role as a facilitator was to help ease the tension so that Mabel would not be so discouraged that she did not want to learn together with this group. Similarly, when Angela and Sandra felt their learning had come to a standstill, it was necessary to instill confidence. I responded by reminding Angela and Sandra about what they have accomplished thus far, and how they as a team work very well.

Alternatively, facilitating participants’ discussions and reflections upon pedagogical documentation was more straightforward and methodological (Osterman & Kottkamp, 2004). For instance, when participants jumped to making conclusions about a documented episode, I knew to encourage participants to pause, slow down, listen more closely, build on an idea, or rethink an assumption or practice. As such, participants were able to sort out their thoughts and articulate more thoroughly their thinking processes (Bruner, 1986). Similarly, when participants turned to me for answers to their questions, I facilitated them to seek answers together with their group members. Essentially, when a facilitator encourages teachers to make visible their thinking to the group, everyone in the group can contribute to that thinking, and work towards improving the knowledge, insight, and sensitivity of participants who collaborate together (Malaguzzi, 1998; Rinaldi, 2006).
Participants growing autonomy throughout this research study suggests that when teachers develop a strong image of themselves as learners and the skills that support collaborative learning, they become more equipped to sustain their own teacher learning groups for professional learning and development. For instance, I found myself tolerating longer silences and looked to participants to sustain the flow of the dialogue. The presence of a third party, such as an outside expert or a group facilitator gradually receded. Significantly, this study shows that teachers can become key stakeholders in their own professional learning and development, and that has strong implications for fostering life-long professional growth (Clark, 2001; Catapano, 2004).

**Mindful Expectations**

Teacher collaboration in teacher learning groups is manifested through many different shapes, sizes, and forms (Borko, 2004, Clark, 2001). A final subtheme of this study points to the distinctiveness of every teacher learning group, and that as researchers/group facilitators, we need to be mindful not to impose our own expectations for the group and unconsciously overlook the richness of every group’s progression.

It is very easy to compare and contrast the two teacher learning groups in this study and consider which group was more “successful” in terms of teacher learning. Throughout this discussion chapter, I have generally avoided this kind of competition between the two groups. However, as I reflected upon the data, it seemed to me that participants at Westside Preschool were more experienced documenters than participants Northviw Preschool. They seemed to have developed stronger teacher inquires and explored them with greater depth; for instance, Angela and Sandra created and sustained the documenting of the children’s investigation of the tunnel. On the contrary, Agnes, Mabel, and Noula’s discussions mainly focused on learning how to
create strong documentation for teacher inquiry. For a brief moment, I wondered whether the group at Westside Preschool was an example of a fruitless teacher learning experience.

Then, reflecting upon my own assumptions and expectations of teacher learning groups, I saw just how accomplished the teacher learning group at Westside Preschool was. First of all, at Westside Preschool, Agnes, Mabel, and Noula were all from a different classroom. As such, they rarely worked with each other during the week. Compared to Angela and Sandra at Northview Preschool, it is understandable that Agnes, Mabel, and Noula used more time and invested more effort to develop their skills of communication and collaboration. Also, at Westside Preschool, Agnes, Mabel, and Noula had to meet during their one-hour lunchtime as opposed to Angela and Sandra who met in the morning and had more flexibility with their time. Their time together was more stringent and as a result, rushed and insufficient at times to investigate inquiries in greater depth. Taking all these differences into consideration, Agnes, Mabel, and Noula overcame many obstacles while developing their knowledge and practice of documentation and teacher inquiry.

Significantly, the different results and outcomes demonstrated by the two teacher learning groups at Westside and Northview Preschool mainly infer that participants experienced different starting points and progressions in their collaboration and teacher learning. Neither group was better or more accomplished than the other. This study highlights and cautions against evaluating teacher learning using a comparing/contrasting approach that would likely overlook the complexity of factors, such as school culture or teacher experience that impact teacher learning.

**Implications for Social Learning**
The two teacher learning groups in this study demonstrated that teacher learning occurred when teachers collaborated to study pedagogical documentation in childcare centres. Organizing the
two teacher learning groups for teacher learning and development did not involve additional financial cost to the two childcare centres. Time was arranged creatively (e.g. shuffling lunchtimes and breaks) with the childcare director and supervisor to create a common time for teachers to study documentation. This low-cost and inexpensive opportunity for effective teacher development suggests that childcare and other early childhood settings can experiment with this approach to support teacher learning, making necessary adaptations to teacher learning groups to meet individual school needs. Forming teacher learning groups has strong implications for develop an ongoing, sustainable, and empowering model of in-service professional development in childcare settings where resources are often scarce.

Another implication of this study is that social learning is an effective and viable approach to teacher learning, regardless of previous teacher training and skills. Already, the level of education among teachers in childcare centres varies, and often, professional development is reserved for more experienced teachers; the gap in teacher knowledge and practice continues to grow. Forming teacher learning groups creates a common ground, a place where teachers can work collaboratively to talk, negotiate, and develop a shared body of pedagogical knowledge and practice relevant to their current understandings about teaching and learning. For novice teachers, and teachers with minimal teacher training, learning in teacher learning groups may require a strong group facilitator and extended time and opportunities for teacher collaboration. Nevertheless, childcare centres are in a position to foster professional growth among individual teachers, as well as collective growth among all its teachers.

Emphasizing pedagogical documentation as a powerful tool for teachers to adopt in educational settings, including those beyond early childhood education is a final implication of this study. By making visible students’ thinking processes through artifacts such as samples of
student work, teachers can revisit and carefully study the pedagogical experience individually and together with colleagues. Teachers can work together to develop their teacher learning group to study pedagogical documentation. They can also adopt other tools such as protocols for discussion to support social learning. The two different groups in this study demonstrated that teacher learning groups are flexible, and hence, can support various educational settings such as elementary and secondary school contexts. These differences actually enrich this study by making visible the complexities and variety of interactions that can take place, even when the same facilitator and protocol are scaffolding the process.

**Limitations of the Study**

This study had limitations that affect the experiences of participants and subsequently, the findings and conclusions of this study. First, participants were not selected at random for this research study, although this is common in studies that aim to look intensely at a phenomenological process. Instead, I only approached Reggio-inspired childcare centres in the city of Toronto, Canada. This ensured that participants would have a working understanding of the philosophical and pedagogical assumptions and practices of the Reggio Emilia approach, including pedagogical documentation, which I intended to investigate.

Of this pool of Reggio-inspired childcare centres in Toronto, I also only approached centres with a supportive administrator (e.g. childcare director or supervisor) willing to create an ongoing time and space for their early childhood teachers to study pedagogical documentation in teacher learning groups. This sample population might have excluded potential early childhood educators or childcare centres interested in participating in this study, limiting the number of teacher learning groups that could be examined in this study.
Moreover, since participants were exclusively selected for this study, there was an overall willingness by the childcare centre and its participants to participate in this study. A comparable level of openness might not be found in other teacher learning groups, and as such, additional resources such as time might be needed to facilitate trust between participants and the researcher, as well as among participants themselves. It is important to remember that the two teacher learning groups in this study are situated in a specific context. The agents of this context shape the teacher learning group itself, and the kinds of experiences they will create. Thus, any generalization of the findings from this study must be exercised with great mindfulness.

Another key limitation of this study points to the methods of assessing teacher learning. In this study, videotaped research meetings were the main data source for understanding teacher learning. Teacher learning that occurred beyond our research meetings was not recorded or reflected in the data. This suggested that the degree of teacher learning experienced by participants was more than what was captured in the data. However, further discussion about that learning was not possible in this study.

Furthermore, relying on self-report was another limitation to assessing teacher learning. Throughout the study, participants often talked about what they learned and how that learning has informed new teacher actions and practices. Yet participants’ self-report on their learning might be influenced by personal perceptions and cannot accurately recount their professional growth. As such, participants’ self-report was always triangulated with other data sources, such as their documentation work. When triangulation was not possible, self-report provided a necessary window into participants’ classroom practices.
Directions for Future Research
The findings and discussion demonstrated that teacher learning groups were effective in the short-run (six- to- eight- weeks) to engage teachers in the process of dialogic learning and deeper understanding of how pedagogical documentation can support that learning.

An area for further investigation might include actual classroom observations to examine teacher action and practices in the early childhood classroom. This might provide a more comprehensive picture of what teachers learn through their study of pedagogical documentation in teacher learning groups. It might also create a stronger understanding about certain qualities (e.g. motivation) that might prompt teachers to translate new knowledge into new teacher action and practice.

Furthermore, in the early childhood classroom, student response to teachers’ action and practices might also be examined to look for relationships between teacher learning and student learning. Ultimately, teacher development must improve student learning. This investigation would be a necessary follow-up study when probing the economic and social value of forming teacher learning groups to study pedagogical documentation as professional development.

Concluding Remarks
I began this dissertation with the words of Loris Malaguzzi (1998): “Teachers –like children and everyone else – feel the need to grow in their competencies; they want to transform experiences into thoughts, thoughts into reflections, and reflections into new thoughts and new actions” (p. 73). Teachers are deserving of ongoing opportunities for professional and personally growth, not just because they are teachers, but also because we are fundamentally exploratory, curious, and passionate beings. This study demonstrated that professional and personal growth occurs effectively in social contexts through ongoing dialogue and reflection upon pedagogy.
Working together to study pedagogical documentation, participants experienced learning as a social process. The opportunity to engage in dialogue and shared reflection were key processes in their teacher knowledge construction. Participants also experienced learning as an active process that involved the rethinking of taken-for-granted perceptions, values and beliefs, and subsequently, demonstrating a change in teacher action and practice. Finally, participants experienced learning as a dynamic process that involved pursuing teachers’ (and children’s) inquiries and seeing where these explorations may lead.

The positive and rich learning experiences of the childcare teachers in this study creates a cross-cultural interpretation of pedagogical documentation between two Canadian childcare centres and the early childhood schools of Reggio Emilia, Italy. Participants’ experiences also serve as point of departure towards exploring the use of pedagogical documentation in teacher learning groups in different educational contexts. The findings and outcomes of this study suggest that empowering kinds of teacher learning and development are realistic.
REFERENCES


151


Appendix A:

[Letter to appear on OISE/UT Letterhead]

Dear [Parent/Guardian],

Working to improve the quality of education and care for young children, teachers at [childcare centre name] actively participate in professional development through documentation work and teacher inquiry. Recently, they have been collaborating with Alice C.Y. Wong, Ph.D. Candidate from OISE/University of Toronto to study documentation in teacher inquiry groups. The research study aims to “make visible” and understanding teachers’ thinking processes in their study of documentation together in teacher inquiry groups. I, the researcher, am seeking approval to include in my Ph.D. dissertation and future publications in educational journals and books samples of documentation studied by the teachers in their professional development. Samples of the documentation are used to supplement written analysis of teachers’ learning and will contribute to deeper understandings of child development, curriculum planning and effective teaching practices for young children. Please indicate your approval for the following by signing this consent form.

I, as parent or legal guardian of [child’s name], understand that samples of documentation studied by teachers at [childcare centre name] may be published in educational materials such as a dissertation, academic journals and books. Documentation samples may be extracted from teachers’ classroom observation notes, transcripts of children’s conversations, photographs, audio and video clips of process in children’s activities, and samples of children’s work. Your child’s names will not be used, and all included samples are used to supplement written descriptions of teachers’ thinking and learning processes in teacher inquiry.

Thank you for supporting the professional development of early childhood educators, especially since this implies the planning and implementation of richer experiences for young children to learn and grow. I hereby acknowledge and declare that the terms of this authorization for the aforementioned purposes of for any consistent purpose are fully understood by me.

Name of parent/legal guardian [please print]

Signature of parent/legal guardian

Date

OISE/UT and the University of Toronto’s Ethical Review Office have approved this research, and can contacted at ethics.review@utoronto.ca or 416-946-3273 if you have questions about your rights to give consent. Questions about the study can be directed to me, Alice C.Y. Wong, at acwong@oise.utoronto.ca or 647-283-7667. Please keep a copy of this consent letter for your own reference.

Sincerely,

Alice C.Y. Wong, Ph.D. Candidate,
Department of Curriculum, Teaching & Learning,
Ontario Institute for Studies in Education (OISE)/ University of Toronto
Appendix B

[Letter to appear on OISE/UT Letterhead]

Dear [Participant],

I commend your commitment to professional learning to enrich the quality of learning for young children, and sincerely thank you for your consideration to participate in this research project titled, *Teacher Inquiry Groups as Professional Development for Early Childhood Educators*. You have been approached to participate in this research because you are an early childhood educators currently practicing pedagogical documentation and/or are interested in enriching your teaching practice. This research project aims to “make visible” early childhood educators’ thinking in the study of documentation in teacher inquiry groups. Your participation will not only contribute to your own professional learning but will also inform the development of more meaningful and effective forms of professional learning and development for early childhood educators in Canada.

Each inquiry group will have two or more participants, who are your fellow colleagues at the childcare centre where you work. Collaboratively, you and other participants will decide on the format/structure of the inquiry group. For example, you will decide on the frequency and length of meetings as well as the meeting time and location. A minimum of 8 meetings no shorter than 20 minutes is recommended to ensure sustained, ongoing professional dialogue impacting teacher learning and development. I, as the research will participate in the study of documentation and guide the teacher inquiry group towards developing their own knowledge(s) and understandings about teaching young children. I will also videotape all meetings, which will be transcribed and analyzed to examine participants’ thinking and learning processes in teacher inquiry groups.

All collected data will be kept confidential, secured in a locked cabinet and/or password protected computer, and only I will have access to it. Anonymity of participants will be maintained and practices of confidentiality used throughout the study and its publication. It is likely that members of the inquiry group will be able to recognize each other’s comments. No foreseeable risks or harm to participants are involved. All participation is voluntary and consent-driven throughout, meaning that you can withdraw from the research project at anytime without explanation and/or any negative repercussions from the researcher and/or your employer. Any collected data will be subject to the withdrawing participant’s wishes as to whether or not to incorporate collected data into the overall analysis and published results. If the data is used, it will remain anonymous in published results.

OISE/UT and the University of Toronto’s Ethical Review Office have approved this study. You can contact the Office of Research Ethics at ethics.review@utoronto.ca or 416-946-3273 if you have questions about your rights as participants. Questions about the study can be directed to myself or my research supervisor, Dr. Mary Kooy at mkooy@oise.utoronto.ca or 416-978-0316. Please keep a copy of this informed consent for your own reference.

Sincerely,

Alice C.Y. Wong, Ph.D. Candidate,
Department of Curriculum, Teaching & Learning,
Ontario Institute for Studies in Education (OISE)/ University of Toronto

163