

CHANGING TEACHERS' BELIEFS AND PEDAGOGICAL PRACTICES

By

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## Abstract

The purpose of the study was to document, over an extended period of time, the transformative processes that dialogue, conversation, reflection and documentation can provide for early childhood teachers as they bring their thoughts from taken-for-granted assumptions to explicit affirmations about their beliefs and pedagogical practices. A sample of three teachers, an early childhood education student and a pedagoga participated in two locations. They had all been involved in a local knowledge community exploring the substantive professional ideas of the Reggio Emilia Approach where respect for the image of the child as rich, strong and powerful is fundamental to preparing an environment that acts as a third educator. The practice of pedagogic documentation can help make teachers' thought processes about change visible and open for discussion. After attending a conference on Reggio Emilia practices in August, the volunteers participated in the study until April 2003. As participant observer in this ethnographic field study, I gathered observations and carried out discussions and interviews with the teachers, student and pedagoga. The teachers maintained journals. I made field notes and kept a journal.

The pedagoga engaged with the teachers in a community of learners as they questioned their beliefs and decisions about practice. Together they began to co-construct environments that reflected changing images of children and themselves. Provocations, disturbances and 'cracks', that is, the location or opportunity for teachers to stop, listen and observe and then negotiate a plan that suits the group interest, provided opportunities for change in both beliefs and practices. Listening, in particular, energized the teachers' professional artistry, that is, the tacit dimension that connects practical wisdom and decision-making in living practice.

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## CHAPTER I Introduction

Eleven years ago in April 1993, the One Hundred Languages of Children traveling exhibit from Reggio Emilia, in the province of Emilia Romagna, Italy was mounted at the Vancouver Art Gallery, Douglas College and Surrey Art Galleries. Early Childhood teachers who attended the exhibit were stunned, apprehensive and curious as they witnessed multi-media artifacts, photographic documentation and text of very young children's ideas about such topics as "light and shadow" or "crowds". The documentation, which recorded extended educational projects lasting a year or more, for example, the Amusement Park for the Birds, had originally provided particular groups of children with a memory trace and a means of revisiting their work and projecting further questions and hypotheses about the topic under study. Local teachers had a wide variety of responses especially to the children's extraordinary drawing and sculptures. They were amazed by the beautiful and powerful documentations. They questioned how such young children could produce such work. Some teachers wondered if adults had assisted them and in doing so neglected more important responsibilities.

Over the past eleven years, some early childhood teachers have become part of a community of learners who are changing our pedagogical beliefs and practices to reflect our image of children as competent, resourceful and brim-full of ideas. We are beginning to construct ways of working with young children and their families that move us beyond certain North American Practices. As Howard Gardner writes in *Making Learning Visible* (2002), we have prided ourselves on being "child-centred" focusing on individuals, but we may not have paid sufficient attention to what children are actually expressing. We may not have viewed them as members of a group of children embedded within their community. We want children to learn

co-operatively but struggle to model cooperation amongst ourselves as teachers and parents. We provide children with dull and uninspired classroom environments and yet expect them to develop aesthetic awareness and produce artistic works. We hope for community but easily crystallize into interest groups. We may advocate the “discovery method” of learning but we may not have the confidence to allow children to follow their own noses and hunches (p. 338).

Recent sociocultural perspectives in early childhood education emphasize the connection between the images of childhood held by practitioners and how they practice early childhood education (Burman, 2000; Pence et al., 1999). Rousseau’s image of the “innocent child”, For example, is a powerful one in contemporary Western culture but it can provoke early childhood educators to patronize children and lead to comment like the one about the “cuteness” of a child’s monster painting.

Traditionally, the profession of early childhood education, with its own codes of practice, its own discourse and its own theoretical perspectives, has built itself into an institution that has taken on a life of its own. Early Childhood education has been criticized for grounding itself in practices that mean little to anyone else outside of the profession, for example, “play-based” programs. Wenger (1998) uses the term ‘reified’ to explain how these traditional practices are named and how a specialist discourse emerges. The notion of ‘child-centredness’ in early childhood education developed historically to compensate for the estrangement of young children. Wenger (1998) warns that often the reification process can result in such slogans as “Children learn through play” which simplify complex understanding and hide broader meanings. For example, what sort of play and what sort of learning happens? Shotter, cited in Rogoff (1990) states that

For the structure of human exchanges, there are precise foundations to be discovered in the institutions we establish between ourselves and others; institutions which implicate us in one another's activity in such a way that what we have done together in the past commits us to going on in a certain way in the future. The members of an institution need not necessarily have been its originators; they may be second, third, fourth, etc. generation members having inherited the institutions from their forebears. And this is an important point, for although there may be an intentional structure to institutional activities, practitioners of institutional forms need have no awareness at all of the reasons for its structure – for them it is just “the way things are done”. The reasons for the institution having one form rather than another are buried in its history. (p.45)

Rorty describes such ‘institutional thinking’ as the “desire to find foundations (outside oneself) to which one might cling” (p.315). He urges that we deal with the particulars of a situation and accept the “contingent character of starting points” where there is no set beginning, no set end. “Conversations,” such as the anecdote in the preface to this Chapter, “with our fellow humans...(is) our only source of guidance” (Rorty, 1982, p. 166). “It is the ultimate context within which knowledge is to be understood” (Rorty, 1980, p. 380). Perhaps the teacher who listens to the child in a kind of dialogic interaction is re-interpreting assumptions, prejudices and historical interpretations of young children.

### Purpose of the Study

Through dialogue, conversation and public inquiry, we begin to “reflect on (our) own understandings,” thereby starting a dual process of bringing these understandings to consciousness and changing them at the same time (Rorty, 1980, pp. 296-297). As a teacher-educator, I wanted to explore, document and discover the nature or essence of such a transformative process with practicing early childhood teachers as they bring their thoughts from taken-for-granted assumptions to explicit affirmations.

Three teachers, a pedagoga\* and a student volunteered to participate in the study. Our coming together provided a frame whereby those taken- for-granted assumptions could be studied, shared, critiqued and changed.

In the following discussion, I present some key ideas about the Reggio Emilia Approach that are relevant to this study. I highlight the importance of change in early childhood and what Reggio Emilia in particular can offer us in relation to our image of young children in Canada. I will explain how the study was conducted with information about the research locations and volunteer participants and their roles. I will explain how gathering data through multiple qualitative methods and soliciting feedback from participants throughout the study helped me identify my biases and assumptions. Reliability, validity and ethical aspects are also explained.

#### Key Ideas of the Reggio Emilia Approach Relevant to My Study

Four key ideas of the Reggio Emilia Approach are relevant to my study: the image of the child, the role of the teacher, the environment as a third teacher and transparency.

Carla Rinaldi (1993), pedagoga in the preschools of Reggio Emilia states

The cornerstone of our experience, based on practice, theory and research, (is the image of the children as) rich, strong and powerful. The emphasis is placed on seeing the children as unique subjects with rights rather than simply needs. They have potential, plasticity, the desire to grow, curiosity, the ability to be amazed, and the desire to relate to other people and to communicate (p. 119).

The teachers in the preschools in Reggio Emilia occupy complex roles. A primary responsibility, according to Fraser (2000), is the forming of a circle of relationships.

\*A pedagoga works with teachers in identifying new themes and experiences for professional development and encourages openness to change and a willingness to discuss opposing points of view always promoting each teacher's autonomy rather than taking over a problem and solving it for him/her (Filipini 1993, p. 130).

Teachers work with one another, with parents, and with the children to form a 'mutual community of learners'. This responsibility implies the essential component of communication: listening carefully to children's ideas, participating in conversations with them and documenting their experiences. The teacher's role is to create a partnership with the learners, to walk beside them as together they launch themselves into the experience and as together they begin the process of co-construction of knowledge. (Fraser, 2000, p. 39)

Respect for the image of the child as rich, strong and powerful is fundamental to preparing an environment that allows children to be actively engaged in the process....."not in isolation but within the social group" (Fraser, 2000, p. 55) of peers and teachers. For Gandini (1993) "the environment is seen here as educating the child; in fact, it is considered as the 'third educator' along with a team of two teachers" (p. 148). Teachers in Reggio Emilia pay attention to aesthetics to build an environment as the 'third educator'. Underscoring the image of the child as competent and able to construct alone or co-construct learning, the environment offers many choices, provokes engagement and exploration of many activities and representations with different media and materials. Such an environment requires that teachers plan for the flexible use of space and materials both indoors and outdoors. Flexibility is based on relationships between what the children are doing and what can be documented in order to help teachers interpret the underlying theories and rationale for the experience. Relationships also affect the presentation of materials in the environment, for example, objects are shown in relation to other materials such as twigs and branches with wooden blocks. The program works because relationships are also built through collaboration. Decisions about planning are not made by one person but through sharing observations and reflections. Gandini notes that

All the things that surround the people in the school and which they use – the objects, the materials and the structures – are not seen as passive elements, but on the contrary are seen as elements that condition and are conditioned by the actions of the children and adults who are active in it (Gandini, 1993, p. 148).

Within this reciprocal system, children and teachers negotiate the planning of projects.

Forman and Fyfe (1998) identify three components – design, documentation and discourse – which define negotiated learning. “Design refers to any activity in which children make records of their plans or intended solutions. A drawing can be a design if it is drawn with an intent to guide the construction of the items drawn, or to guide a sequence of steps” (p. 241). Forman and Fyfe (1998) state that documentation has many different forms. It can be when teachers document (written observations, audiotape transcriptions, make slides, display photos on panels and make videotapes of children’s work. This documentation can then be used as research as part of their instruction with the children, the net result is a change in the image of their role as teachers, a change from teaching children to studying children, and by studying children, learning with children (p. 240). Discourse, the third component, includes the added dimension of reflection and analysis. “Treating talk as discourse causes teachers to look for theories, assumptions, false premises, misapplications, clever analogies, ambiguities, and differences in communicative intent, all of which are pieces to be negotiated into shared meaning by the group” (Forman & Fyfe, 1998, p. 247).

Transparency, the fourth key idea relevant to my study, is evident in many different aspects of the Reggio Emilia Approach. For example, light does not just enter the room through windows. It shines through materials attached to windows. It is reflected by shiny objects hung from the ceiling. It shines through glass objects round the room and is reflected by mirrors in expected as well as as unexpected places. Transparency is also a metaphor for communication. The documentation of the children’s work provides information for all to see and discuss.

### My Assumptions

In carrying out this study, I made three assumptions. First, I assumed that the ideas explicated in the Reggio Emilia Approach contain substantive professional ideas worth exploring. Second, I assumed that the participating volunteers were interested in change and had the time, energy and motivation to make sense of their pedagogical environment in their own ways. My third assumption was that the relationships between the pedagogista and teacher volunteers would be workable and productive.

### The Local Narrative

In 2001, our local (Vancouver) “knowledge community” (Craig, 2000) initiated a Reggio Network. The purpose was to provide a meeting place for teachers to dialogue and share their experiences and pedagogical practices. A network that serves as a common place location is described by Sumara (1996) as a hermeneutic circle of understanding. This circle of participation is not a fixing of identity in a pre-given real world, but rather a set of ever-evolving relationships among components of a system whereby any understanding (remembered, lived or projected) is in a continual process of being re-interpreted. Our knowledge community is a place for nurturing and valuing early childhood teachers’ discussion of theories that guide practice (Usher, Bryant & Johnston, 1997). Such discourse seems to help teachers reflect on their own values and raises their implicit understanding to the conscious level.

This local Network, is a structure voluntary informal gathering where teachers can examine their beliefs and practices. Kennedy (1997) attributes what beliefs teachers bring to teacher education as a combination of their upbringing, a reflection of their life

experiences or a result of socialization processes in school. In 1981, Zeichner and Tabachnick advanced the idea that the thousands of hours prospective teachers spend as pupils in the classroom shape their beliefs. These (conservative) beliefs remain in latent form during training in pedagogy and become a major force once the teacher is in control of a learning environment. Those theories and practices close to their beliefs are recognized and characterized as “what’s new?” Theories and practices that challenge their beliefs are dismissed as too theoretical, unworkable or simply even wrong. Kennedy echoes Bruner (1996, p. 46) in arguing that most people acquire ‘folk pedagogy’ that reflects certain ‘wired-in human tendencies and some deeply ingrained beliefs” (Bruner, p. 46). Some beliefs are more important than others to individuals, and the more important the belief is the more difficult it is to change (Rokeach, 1968, p. 3). If a central belief is changed, other beliefs within the person’s belief system are affected (Rokeach, 1968, p. 4). Rokeach argues that beliefs are closely linked to the ego or sense of self.

### Why Study Changing Beliefs about Early Childhood?

#### The Beginnings of Democracy

Markman (1989) argues that very young children are capable of forming object categories that are so stable they resist change. She suggests it is possible that some of the basic concepts that all children acquire having to do with justice, learning and even teaching are learned early, and, as “basic concepts” are difficult to change. Tatro’s (1996) important work on beliefs concluded that “lay cultural norms (beliefs) among teacher education students are strongly ingrained and that most teacher education is a weak intervention to alter particular views regarding the teaching and management of diverse learners” (p. 155). To create transformative

transactions (Bruner, 1996) where we change as do the transactions, it is imperative we question those assumptions and prejudgments we hold so dear, particularly those supporting our own historical situations. Goals and ends, beacons that guide so many pedagogical decisions, do not just appear; they are personal decisions made by us as members of a culture at historical moments. As Rorty (1985) puts it, "One's sense of relation to a power beyond the community becomes more important as one becomes able to think of oneself as part of a body of public opinion, capable of making a difference to the public fate" (p. 169).

### Young Children in Canada

The incorporation of children's right into public law (Covell et al, 2000) has made some difference to the "public fate" of young children in Canada. Traditionally, children have been seen (legally) as objects without rights. Since 1991, when Canada signed the United Nations Convention on the Rights of the Child to provision, protection and participation (all of which apply to public and private locations for children), children have become subjects or individual persons with dignity and basic rights. Changes in the provision and protection of children has been accompanied with little regard for participation. The Federal Government's has taken the position that its Convention obligations are not automatically incorporated into Canadian domestic law. Other countries, notably Italy and Sweden, have enacted the Convention Rights in domestic law. By 1998, the lack of recognition that preschool children were unable to participate in becoming democratic citizens had been remedied. "Preschool should provide the foundation for children's understanding of democracy" (Ministry of Education and Science in Sweden, 1998, pp 16-17). In Sweden the concept of continuous dialogue between child and adult and children and their peers symbolizes their early childhood pedagogy.

Dewey (1916), at the beginning of the 20<sup>th</sup> century, argued that education was important for the development of democracy stating that it is through education that children become part of humanity's social development. A "good society" can develop through children's own experience of participation, mutual understanding and shared interests. Dewey emphasized the importance of dialogue, undisturbed communication and shared judgment between equals to test the relevance of various perspectives in a diverse society. Dewey's sense of community is more than merely a pleasant frame in which to work or in keeping with democratic beliefs. Community, with its sense of both cooperation and critical judgment, may be essential to meaningful learning. It may be that individualism, which has formed the pervasive ideology of North American culture and which is one of the factors that separates it from European (and Asian) cultures, needs to be reassessed as in the work of Project Zero at Harvard (Gardner, 2001).

### Project Zero

For more than thirty years, Project Zero researchers have conducted studies with children, adults and organizations aimed at understanding and enhancing thinking, learning and creativity. melding theory and practice, Project Zero's efforts often combine basic inquiry with work in schools toward the goal of fashioning more enlightened educational practices such as designing strategies for creating "a culture of thinking" that encourages students to think critically and creatively. Assessment becomes an ongoing and integral part of the curriculum so that it reinforces instruction and guides students to think critically and creatively (Seidel, 2001).

### Why Study the Reggio Emilia Approach in Particular?

The City of Reggio Emilia is located within the Northern Italian Province of Emilia Romagna. This region is known as the "Red Belt" because it has voted consistently for the Communist

party for 50 years. Its civil economy is as vibrant as its corporate sector. Its private entrepreneurial sector is active, pluralistic and highly productive. In a short paper "Co-operation in the New Economy: A Civil Economy Perspective" (2003), Zamagni outlines his views on the limitations of seeing the world's various activities in a narrow market perspective. He asserts the importance of reciprocity as a principle and the value of co-operatives. Zamagni argues for the creation of a new consensus and that "the new challenges cannot be met without a robust and viable co-operative sector leading the civil economy. The principles of reciprocity must be applied not only as a medium of self-interest, but with "gratitude, consideration, empathy, liking, fairness and a sense of community, which are intrinsically valuable and valued by all (and)....the good society is made of good acts" (p. 4). He sees the co-op as the natural vehicle for delivering relational goods, those goods such as early education and caregiving that are services to persons and that are characterized by the exchange of human relations. In relational goods, the quality of the personal interaction lies at the core of what is exchanged between the provider and the recipient and can be optimally produced by the provider and the recipient together.

The City of Reggio Emilia, where preschools were described in 1991 by Newsweek as the best early education in the world, is nested within this region of a strong and vibrant civil society which views school as a "polity, as a locus for citizenship by defining them as public spaces that seek to recapture the idea of critical democracy and community. By public space, I mean, as Hannah Arendt did, a concrete set of learning conditions where people come together to speak, to engage in dialogue, to share their stories and struggle together within social relations that strengthen rather than weaken possibilities for active citizenship" (Giroux, 1989, quoted in Pence et al., 1999, p. 201).

### My Theoretical Basis

I have been influenced by and have sought understanding and interpretation of my study findings through the theories of Malaguzzi, Dewey, Vygotsky, Wartofsky, Wenger, Fish and Lacan.

Malaguzzi, one of the founders of the Reggio Emilia Approach describes the aim of education is to increase possibilities for the child to invent and discover. He links cognition and affect by defining learning as not only a satisfying experience in itself but more to understand is to experience desire, drama and conquest. In his view, the work of teachers is to capture the right moment and find the right approaches for bringing together, into a fruitful dialogue, theirs and the children's meanings. Through the use of democratic teaching strategies, he seems to echo Dewey's image of the child as "spilling over with activities of all kinds," and Dewey's view of education as "taking hold of (the child's) activities, of giving them direction" (1915).

Vygotsky's zone of proximal development is defined as the distance between a child's actual level of functioning and the level of functioning that can be achieved with support from others, either a more expert peer or a sensitive, knowledgeable adult (Vygotsky, 1978). This implies a spiral where the child can be described as about to see what the adult or more expert already sees. Sensitive to timing, a teacher will offer the child support, knowledge or a skill to help close the gap in knowledge between them. Learning according to Vygotsky, happens within a social context whereas Piaget believed the child constructed knowledge on an individual basis. A further difference between them is that for Piaget action precedes language where for Vygotsky language is learned first which then helps the child organize

perceptions. Language and thought operate together to form ideas, allow plans for action, carry out those actions and evaluate them.

As children and teachers participate in newly constructed practices, for example, the Reggio Emilia Approach, they encounter artifacts (Wartofsky, 1979). Artifacts help shape meanings and, according to Wartofsky, can be interpreted at three levels. For example, primary tools are used in practice on a practical level to preserve past practices. Secondary artifacts, for example, words or photographs are symbolic representations of past practices. Analytic modes of representation or tertiary artifacts draw on primary and secondary artifacts but are not bound by them. Wenger (1998) offers an interpretation of practices or artifacts not as fixed entities but rather histories of meanings that can be re-negotiated. In this way teachers and children can see themselves as a community of learners actively producing learning rather than being shaped by outside forces or absorbing knowledge passively.

Teachers learn as they engage with the social and physical environment. "The possession of practice experience and knowledge together with the ability to use them critically, intuitively, practically....these qualities, skills and processes and their blending are built up through extensive introspection, critical reflection and review of practice" (Higgs & Titchen, (2001, p. 275). Fish (1998) includes intuition, that is, seeing through things, reading between the lines and interpreting messages gleaned through engagement with the social and physical environment as an integral component of teachers' practical wisdom. When teachers engage in new practices, they can become actively involved in learning that may be compatible with what they already know. However, new practices may also lie beyond the sense of, and thereby disturb, the stability of a teacher's assumptions or conceptual frames through which they understand practice. The structure of a teacher's practice, that is, ongoing observations,

expectations, emotional states) will be different from the symbolic structure of her discourse about practice, that is, her practice as text. There can be a difference between noticing and recognizing a need to practice differently and then actually possessing the skills and authority to change practice. Teachers who reflect in order to create a more stable informing discourse can give a new form to praxis and avoid 'quilting' (Lacan, 1991) their historical realities thereby giving a sense of identity and structure to past and present teaching.

These ideas converge, including the neo-Freudian interpretations of Lacan, to provide me with a theoretical ecology that is primarily social-constructivist. This ecology stresses a 'mutual community of learners' who, in social participation, listen to each other to co-construct knowledge and practice.

#### How the Study is organized

In Chapter II, I set out the methodology and research design. I also document factors that contributed to how the volunteers in this study began to develop their relationships with their environments keeping in mind aesthetics. In Chapter III, I investigate how pedagogic documentation helped make the teachers' thought processes about change visible and open for discussion. The pedagoga engaged with the teachers in a community of learners. Together they began to co-construct environments that reflected their changing images of children and themselves. In Chapter IV, I focus on provocations, disturbances and 'cracks' that occurred between and amongst children. I use this Trinitarian framework to investigate the possibilities of change in teachers' beliefs and practices about curriculum and their understanding of the environment as a third teacher. In Chapter V, I revisit, through the multi-dimensionality of pedagogical documentation, how certain episodes in the study contributed to changing

teachers' beliefs and pedagogical practices. In the final Chapter, I show how my findings are linked to the purpose of the study. I re-examine the theoretical basis that informed my interpretation of the thesis findings and suggest implications for further research.

## Chapter II

### Why the Study was Conducted

Two children's books encapsulate two major threads in my personal and professional life – difference and change. It's OK to Be Different by Todd Parr (2001), summarizes visually and textually the obvious but challenging reality that everyone is, in fact, different in external and internal attributes. I have been faced with differences from my first teaching appointment in Clapham Junction in south east London in an 'Infant' classroom with thirty-three five year olds, many of whom did not speak English as their first language, some of whom had behavioural challenges and at least two who had physical disabilities. In that first professional context, some of my Dewey based learning from Teachers' Training College was immediately useful. My greatest resource, however, was a special education assistant who was a 'local' and near retirement. While I was reading the early work of Howard Gardner, hoping to get hints about how to teach my diverse group of children, she demonstrated to me the realities of setting up the environment and schedule to maximize children's social relationships. The aim was to communicate and get along with each other and us as well as learn. She modeled the practicalities of relating to family members who had different languages and cultural expectations about their children. Most of all she mentored me in how to get things done in a system that, while benign, was on bureaucratic overload.

More recently and on this continent in the early 1990s, I was fortunate to be involved in a study called 'Making Friends'. For two years, as a member of a team of teacher-researchers collaborating with local Vancouver early childhood teachers in practice, I was able to learn

from Michael Guralnick and his approach to inclusion and the reality of educational difference.

In 1993, Jane Cowen-Fletcher published a children's book called Mama Zooms. The book is written from a preschool child's perspective about his mother who is in a wheel-chair. The closing page of the book contains an illustration of a child being tucked into bed accompanied by the words "Mama zooms me right up until bedtime. Then Mama is just my mama, and that's how I like her best" (1993, p. 18). Whenever I read this book, I am reminded of my early experiences which focused my attention on relationships, that is, of self to self and self to other. As an only child, I spent much of my time in the company of my grandparents. My mother had multiple sclerosis and every day brought change. I learned to expect the unexpected as well as the expected. On my first day in Kindergarten, at recess I walked home alone across a large English village. I was quite sure that my mother had forgotten to pick me up. I was always prepared for her constantly changing challenges. My father, considerably older than my mother, spoke little of life. In March, 1982, that I reeled at unexpected change as I listened to my aunt's voice. At almost eighty my father was dead. The words disintegrated into letters and fell to a heap on the floor. I wanted to sweep them away. The change was unexpected and unbearable.

My grandparents who were actively involved in the Union movement had taught me about different kinds of change. Their commitment demonstrated to me the importance of social and political action to bring about change. Their perspective of activism in an era of declining colonialism, erosion of the class system, and their beliefs in education as the means of democratic change and possibility permeate me and my practice and deeply affect this study. Like my grandparents, John Dewey believed that human institutions ought to be judged be judged by their educational influence and by the measure of their capacity to extend the

knowledge and competence of man (cited by L. Malaguzzi, 1993, p. 78).

I was also deeply influenced by the 'Making Friends' study. I saw how important social relationships are for children in inclusive early childhood settings. I was hungry for the message of the Reggio Emilia Approach. The Approach emphasized that all children's learning differences should be respected and supported through the Hundred Languages curriculum and environment. Throughout the 1990s, I traveled extensively across the United States, Canada and the Middle East sharing the video version of the Making Friends Study. These travels increased my awareness of differences. I saw how children might be deprived of the means (languages) to express themselves. In the summer of 1993, I participated in a week-long study session led by Lilian Katz and teachers from Reggio Emilia in Traverse City, Michigan. This increased my knowledge and understanding of the Reggio Emilia Approach as did a visit to Reggio Emilia in 2002.

#### How the Study was Conducted: Methodology and Research Design

The study was carried out from August 2002 until April 2003. Initially, three teachers and a pedagista volunteered to participate but by October, due to collective agreement procedures, only two teachers and the pedagista remained in the study. Each of the two teachers was located in a different early childhood center and worked as a member of a teaching team. Although the other team members co-operated and supported the volunteer teachers, I was unable to secure their formal participation in journaling, interviews and conversations.

#### Research Locations

The first research location is situated in the semi-basement of North Shore Neighbourhood

House. At first glance, the building has Colonial overtones of a gloomy institution. Situated on a corner overlooking wharves and warehouses of North Vancouver's east end, the 'House' is surrounded by low cost apartment housing and visible homelessness. Once a week there are long lineups in the back lane at the entrance to the Food Bank.

On returning as a familiar visitor for a meeting to set up the study, I was determined to use 'new eyes' to see the unfamiliar. Overall, the new impression reminded me of my first teaching location in Clapham Junction, London, England. The long narrow hallways were rather dark, lacking windows and the small classrooms have relatively high ceilings. However, peeking through a doorway I was reminded of my reasons for wanting to carry out my study in this location. A challenging physical environment was painted with light colours while side lamps rather than overhead lighting gently illuminated an environment too inviting to ignore. Evidence of difference was everywhere. Special equipment such as walkers and standers were neatly parked. Most of all documentation panels illustrating the children's learning lined the narrow hallway. These panels invited parents and children to revisit experiences in the classrooms. I knew I wanted to learn from these teachers (Field Diary: 09/02).

Over a two week period in May 2002, a Community Action Plan for Children (Health Canada) one page questionnaire was distributed to seventy-seven regular participants at North Shore Neighbourhood House to collect demographic information about their families. More than thirty-five percent of families were low income, on income assistance or working poor (a family of four earning less than \$35,000 p.a.) Eight percent of the seventy-seven participants were teenage parents, less than twenty-five years old. Twenty-one percent had up to Grade 12 education, with sixteen percent reporting socio-cultural isolation and lack of social support network having lived in Canada for up to five years. The child care center is open from

eight in the morning to six in the evening Monday through Friday. Sixty children between the ages of 2.6 years and five years attend with nine teachers. Sometimes, the teacher-child ratio is even higher when children diagnosed with the autism spectrum disorder attend. Many children and parents speak English as their second or third language.

A few kilometers away and run under the same non-profit auspice as the North Shore Neighbourhood House program, Maplewood Child Care Centre is located in the basement of what was once a farmhouse situated on the edge of several acres of land preserved for wild life. the farm is open most of the year for children and families to visit. With my 'new eyes' I noticed that the building was more dilapidated than I remembered. The garden surrounding the basement was under construction and had seen better days. On entering the center I was struck with the huge expanse of space inside. From my student practicum visits I know that several generations of teachers have tried their hand at rearranging the environment and this theme would prove to be ongoing during my study. Usually in early childhood settings there is a lack of space but here the expansiveness felt cool and distant despite some courageous attempts to warm it up with children's drawings and paintings. The space was also divided into small work areas for children, for example, a block-building area.

I was excited and curious about my own "first impressions" of these familiar sites. How would the different environments affect the teachers and children during my study? How would the teachers implement the goals they had set within the different limitations? Where would I actually place myself when carrying out my observations? In a wide open setting I would have many choices but be very visible. In the more enclosed setting at North Shore Neighbourhood House where might I not be in the way? How would the families in each setting respond or react to my presence (Field Diary: 09/02)?

Families who bring their children to Maplewood Child Care Centre are, for the most part, less diverse in age and socio-economic status although many speak English as an additional language. this center is also open from eight a.m. until six p.m. Monday through Friday. Twenty-five children between the ages of 2.6 years to six years attend. Three teachers work in this center with an additional part time teacher when a child with autism attends the program.

### Volunteers in the Study

Initially, three teachers volunteered to participate in the study but due to collective agreement issues one teacher withdrew. In January, 2003, a student completing her final early childhood practicum attended Maplewood for five weeks. All the volunteers are in their late twenties and insisted with the support of their employer not to use pseudonyms for the study. The teachers have been employed in their current positions from between three to five years. Their employer is very supportive of their participation in the study as well as that of the children and families. Simone, the practicum student, was completing her early childhood studies at Capilano College and had expressed deep interest in the Reggio Emilia Approach. She also requested her own name be used rather than a pseudonym.

I felt called upon to be part of the dialogic process with these three teachers through our successful collaborative relationships with early childhood student practicums. My role had been as an instructor. Their roles had been as sponsor teachers for students. The three teachers had arrived at different points of entry for problematizing their pedagogical practices. I was curious about our research collaborative study, Could it provide insights into their changing beliefs and pedagogical practices with young children? Would there be differences in these in diverse socio-economic locations compared with middle class and rural locations in which

the Reggio Emilia Approach had been studied previously (Fraser, 2000).

I consider it a great honour that these insightful informants – teachers, student and pedagoga – fell into my ‘research lap’. Susan Fraser volunteering to act as a pedagoga presented me with an unprecedented opportunity to study that role in practice. As participant observers, both she and I became part of this particular community of learners. Although Susan, as the pedagoga, came to the study with her own inscriptions, she was most careful to behave in a consistent manner as part of the setting. In this way significant changes would be initiated or co-constructed with the teachers. She described some of her experiences as a pedagoga in 1998 as she was collecting data for her book Authentic Childhood: Reggio Emilia in the Classroom (2000). When teachers are open to change it works well with a pedagoga but if teachers are confident in their own way of doing things then the process is challenging. Teachers can go through the motions of listening, say they will change but their core beliefs remain. There has to be a commitment to change by the teachers. The pedagoga’s role is to be flexible, listen, and move slowly. There needs to be lots of time for conversation which is difficult in our child care system and culture. When teachers are ready to change, they listen, take time and build trust in a relationship that cannot be rushed. It can take many months even years to embrace new principles. The real question is that of relationship. Teachers must deconstruct before they reconstruct which again takes time. Some teachers may be open to change because of their previous experiences or training and are already looking for new practices as a team. Other teams of teachers have added the principles of Reggio Emilia into their practices without deconstruction. The pedagoga has to be gentle and strong, credible and accepted in her support of teacher’s observation skills, ability to reflect and listen to children as they express their theories.

My sample does not reflect both genders but does reflect various years of teaching experience, various ways and levels of training in early childhood as well as different educational, cultural and linguistic backgrounds. Susan is from South Africa, Magda from Poland, Simone from Switzerland, Sheeba from Venezuela and I am from England. Kim was born in British Columbia. All of the teachers in the study had completed their early childhood training at Capilano College where I am an instructor. The sample is not representative of all early childhood teachers and certainly not pedagogistas who may constitute a new construction in early childhood practice in this culture. However, this sample did provide insights into the experience of educators who are interested and involved in change. Rather than a “strategic sampling of insightful informants or revealing situations” that Palys (1997, p. 79) favours, we, as a team offered a “case(s) that seem(s) to offer the opportunity to learn” as “potential for learning is a different and sometimes superior criterion to representativeness”(Stake, 2000, p. 446).

### Methodology

My primary goal in researching the question of teachers’ changing beliefs and pedagogical practices, as well as the role of the pedagoga, was the production of knowledge (Hammersley & Atkinson, 1995). The participants speak for themselves and their meanings framed this study. However, as a consequence of my observations and participation my interpretations and reflections are products of our shared social world. Although I chose what to describe, I tried to describe phenomena as they were, not merely how I perceived them or how I would have liked them to be (Hammersley & Atkinson, 1995). In the description of those facts I may have portrayed new “truths” to those involved. As a researcher I did have an impact on the teachers

I was studying and attempted to use those opportunities for further understanding about how they might respond in other situations. In this way the image of myself as researcher was parallel with that of the teachers I was studying. We were all actively making sense of what was going on. By including my role within the research focus and even systematically exploiting my participation in the setting under study, I produced an account of our temporary social world. Even though the participants were familiar with me, a temporary slight mismatch developed between their expectations of me and my intentions. This took the form of a reversal to our previous relationship of instructor and sponsor teachers supervising student practicums.. In my November Field Notes I reflected about the participants' presenting awe and respect of the pedagogista's abilities and reputation. These intimate exchanges facilitated the collection of data and were, of course, data in their own right. A problem that Oakley (1981) stresses, from an ethical point of view, is in deciding how much self-disclosure from the researcher is appropriate or fruitful. To expect 'honesty' and 'frankness' from the participants is false if one is never frank and honest about oneself.

At the same time, just as in many everyday situations, as a researcher one often has to suppress or play down one's own personal beliefs, commitments and political sympathies. This is not a matter of gross deception. The normal requirements of tact, courtesy, and 'interaction ritual', in general (Goffman, 1972), mean that in some ways 'everyone has to lie' (Sacks 1975)" (quoted in Hammersley & Atkinson, 1995, p. 91).

As a novice-researcher studying these unfamiliar yet familiar settings, wherever possible I put myself into the position of being an 'acceptable incompetent' (Loftland, 1971). Through watching, listening, asking questions, formulating hypotheses and making blunders I could acquire some sense of the social structure of the setting and begin to understand the culture of the participants (Hammersley & Atkinson, 1995, p.100). This enabled me to avoid

the role of expert or critic. My Field Journal (January 2003) has multiple entries about facing the difficult task of rapidly acquiring the ability to act competently, not always easy even in familiar settings, while simultaneously privately struggling to suspend, for analytic purposes, precisely those assumptions that must be taken for granted in relations with the participants. Loftland (1971) points out that trying to initiate and maintain an inside-outside position can generate creative insight. "The (ethnographer) needs to be intellectually poised between familiarity and strangeness; and, in participant observation, socially he or she will usually be poised between stranger and friend" (Everhart, 1977 quoted in Hammersley & Atkinson, 1995, p. 112). Throughout the study my Field Journal contains entries about the danger signals of feeling 'at home'. I was aware that without a certain kind of distance the analytic work could not be done.

The foreshadowed problem was an attempt to contribute to the developing theory about teachers' changing beliefs and subsequent practices (Glaser & Strauss, 1967) My own biography and a lifelong interest in empathetically supporting children through change and difference translated into the moral imperative of this study which generated a series of questions. For example, what was the process by which new professional knowledge became part of their personal practice? Was their tacit knowledge unearthed? What supports in particular did the pedagogista offer in assisting the teachers in making sense of the principles of the Reggio Emilia Approach? How did it shape understanding of their practice? What kind of language did they use with each other, children and parents? How did they allot time? What materials were offered to children and how? However, many more questions were generated than I could tackle in this study (Hargreaves, 1975). My role

consisted of trying to mediate in a personal way the “antimony of particularity (being interested in concreteness, difference and what is unique) and universality (being interested in the essential, in difference that makes a difference” (Van Manen, 1990, p. 23).

I asked questions of the participants and listened to what they said as evidence about their perspectives in each location or sub-culture. I was aware that knowledge of these perspectives and forms of discourse might form an important element of the analysis (Berger & Luckmann, 1967). As Atkinson (1988) points out, such accounts are not simply representations of the world; they are part of the world they describe and are thus shaped by the contexts in which they occur. I also combined my observing with spontaneous and planned interviews since the data from each could be used to illuminate the other (Dexter, 1970). Reflexive interviewing allowed me to generate information about described events, about perspectives and discursive strategies. It also allowed me to acquire meaning from the observations and led me to see things differently (Woods, 1981). Participants’ journals helped me follow the minutiae of day-to-day social action. Research generated personal documents of this sort embody the strengths and weaknesses of all personal accounts. They are partial and reflect the interests and perspectives of the authors.

Late in August 2002, the three teachers, pedagogista and I attended an early childhood conference at Capilano College called “Opening Doors”. At this conference led by practitioners from the University of Vermont Child Care Centre, we heard about their beliefs and practices. We also attended workshops given by local resource people about the use of materials with young children. Prior to the conference I video interviewed the teachers about what they hoped to learn from attending. Immediately after the conference, I re-interviewed them about their plans and they met with the pedagogista. They agreed

to read her book (Fraser, 2000) as soon as possible. Since I was focused on how the process of change occurred as these teachers, with the support of the pedagoga, I employed multiple qualitative data-gathering methods including documentary analysis of field notes, field diary, participant interviews and pedagogic documentation.

### Data Gathering

During September, October and November, the pedagoga and I visited both centres once each month. The process differed in each location. At Maplewood our observations would begin at 9 a.m. and last for about one and a half hours. At this time children were engaged in self-chosen activity in any area of the environment. I used my Observation Matrix (see Appendix 1) to gather data into four sections: children's story, teacher's story, learning story and pedagoga story, during these time periods. At each session I completed an average of eight matrices. Immediately after the observation period, the pedagoga and I interviewed each teacher separately. The conversation focused on the observation. During the interviews some questions may have been based on stimulated recall from pre and post conference interview material about the teacher's goals. The pedagoga offered an interpretation of the observation and co-constructed suggestions for practice with the teachers. At the end of each session I interviewed the pedagoga alone. The interview transcriptions usually consisted of three to four pages of double-spaced 12 font.

At North Shore Neighbourhood House, the process was reversed due to staffing and program requirements. The pedagoga and I arrived at 12.30 p.m. and met with the teacher for approximately twenty minutes to listen to her ongoing process. Information from these

interviews directed our attention to particular children and materials during the following sixty minute observation period. Again, I used the Observation Matrix to gather data under four sections headed: children's story, teacher's story, learning story and pedagogista story. After the observation, the pedagogista and I would discuss our observations and construct questions for the next interview.

Initially, I organized a timescape of the Observation Matrices, my field notes, interview transcripts with teachers and pedagogista into two separate drawers of a filing cabinet, one for each location. In December, after reading the teachers' journals, I filed these in the location drawers. Based on my interpretation of their journals, I interviewed the teachers about their observed practices, the pedagogical documentation, their reflections on their practices and what they would like to explore more deeply with the pedagogista. These interview transcripts were also filed in each location drawer.

In early January, the teachers, pedagogista and I met to construct plans. To explore perspectives, the pedagogista and I presented both real (based on pedagogical documentation, observations and interview materials) and hypothetical situations about the role of the teacher, image of the child and environment as the third teacher. This decision was based on my assumption that these practitioners knew more than they might say.

Through January, February and March, the pedagogista and I observed and interviewed (in the same format as the Fall sessions). I also visited each location every week during these months to gather more data as I identified significant themes in my observations. During this period of the data collection, the teachers, pedagogista and I, exchanged our written email notes on an ongoing basis. I continued to organize the data as timescapes in each location drawer.

In April, I carried out interviews with the teachers, student and pedagista. During these interviews, I recorded how each participant perceived and experienced their context. I questioned them about how their personal background played in/or influenced their response to change. I used my original framework of questions to guide these conversations. For example, I asked how taken-for-granted assumptions were examined and changed and how they organized time. I also focused on how they had offered materials to children. I was curious to find out more about their interpretation of the role of the pedagista. I also interviewed the pedagista separately. Soliciting feedback from the teachers, student and pedagista throughout the study helped me identify my biases and assumptions as well as flaws in method and analysis. Measor (1985) stresses the importance of teachers reviewing the research that concerns them and Lather (1991) suggests that "persons, as autonomous beings, have a moral right to participate in decisions that claim to generate knowledge about them" (p. 55). Spradley (1970) suggests that the "essential core of ethnography is this concern with the meaning of actions and events to the people we seek to understand. Some of these meanings are directly expressed in language: many are taken for granted and communicated only indirectly through word and action" (p. 5). Measor (1985) in discussing factors that influence the interview process, suggests that "the quality of the data is dependent on the quality of the relationship you build" (p. 57) and that "sharing interests and talking about them with interviewees is an important element in building rapport" (p. 62).

When I transcribed the final interviews, I uncovered content about my original questions which I then grouped under the key principles of the Reggio Emilia Approach. The role of the pedagista contributed formidable content to each subset of data. By grouping the data into the

subsets of key principles, I attempted to answer some of my original questions. How did the teachers examine taken-for-granted beliefs about the image of the child and teacher? What interpretations were they making about changes about the environment as a third teacher? Did documentation make both children's and teachers' thinking transparent?

### Limitations of the Study

Palys (1997) suggests "validity means that we are measuring what we want to measure" (p. 4). Video/audio recording interviews and verbatim transcriptions of these recordings solved the problem of inaccurate or incomplete interview data. The richness of multiple voices within the study was a significant means of claiming validity (Gergen & Gergen, 2000). According to Maxwell (1996) rich data refers to "data that are detailed and complete enough that they provide a full and revealing picture of what is going on" (p. 95).

I could not find any earlier research evidence against which to contrast my findings. While my findings are not generalizable across the early childhood teaching population they do represent the experiences of the participants and therefore may extend our understanding of how and why teachers make meaning of change. The findings from my qualitative research may be transferred through "case-to-case transfer which occurs whenever a person (teacher) in one setting considers adopting a program or idea from another one" (Firestone, 1993, p. 17). Denzin and Lincoln (2000) propose that the criteria of validity, reliability and objectivity can be replaced by credibility, transferability and dependability. Use of participants' language, carrying out the research over eight months and "making the familiar unfamiliar" address the issue of internal validity. Mutual understandings of the data were achieved through participant review and response. Such triangulation (Yin, 1994) of methods, as well as observations and interviews,

added to the credibility. To increase the reliability of the information, I attempted to maintain a chain of evidence, that is, to allow an external observer or reader to follow the derivation of any evidence from initial research questions to ultimate study findings. I anticipate that the detailed descriptions will achieve a degree of dependability which other teachers may, because of the findings, want to transfer to their own locations.

### Ethical Considerations

Approval from the non-profit society that runs the two early childhood locations and the University of British Columbia's Behavioural Research Ethics Board was obtained. Teachers and the parents of the preschool age children in both locations were informed in writing of the purposes and procedures of the research and gave their consent for their children to participate (see Appendices 2 and 3). No participants were subjected to any hardship due to their participation and no compensation was made. Research results were made available to the teachers and the student. Pseudonyms were used for the children.

### Chapter III Teachers' Beliefs and Practices about the Environment: The Role of the Pedagogista

It takes time to observe, to collaborate, to think, to organize your thinking and to make that thinking public (Gandini & Goldhaber, 2001, p. 203).

Teachers bring tacit understandings to their interpretations of changing practices, in particular about the environment as a third teacher. In this chapter I investigate how pedagogical documentation made their processes of thinking, from their individual points of entry, transparent to children, themselves and parents and consequently open for discussion. The pedagogista joined the teachers in a community of learners to co-construct their environments. Sensitive to individual dispositions, the pedagogista scaffolded the teachers changing image of children as well as of themselves.

#### Maplewood Child Care Centre : September-December 2002

*After the Conference my mind was working over time. I talked to my other co-workers about what I had learned. We sat together and decided that we would concentrate on one area of the environment to make changes. We felt that we couldn't change everything all at once. It would be too overwhelming for us and for the children. We had new staff and new children. The head supervisor was very new to the centre. I had just started. We were all new to each other. We also have a few children with some behavioural difficulties so we wanted to get to know these children. We had noticed that they like to do art, mostly painting and anything that was messy such as clay, goop and slime. We decided on the Art Area. First we observed the children and what materials and how they were used. Next, we spent an evening after work discussing and organizing art materials and changing the area around (Sheeba, September 2002).*

#### Changing Beliefs and Practices

The Conference content must have presented Sheeba with perturbations that genuinely bothered her in a deep structural sense. She experienced doubt in a fundamental way about the

procedures being used and the assumptions being made in her work environment. In trying to overcome disequilibrium she seemed to re-organize her thinking with more insight and on a higher level. Subjective meanings form the heart of personal experience and in the process of transformation give us an experiential epistemology. Piaget's "theory of knowledge – interactive and dialogic - is one that emphasizes knowledge creation not discovery, negotiation not verification (Reichenbach, 1951, p. 258).

### Making Change Transparent

I observed Sheeba collecting evidence through written observations and photos. These tools allowed her and her co-teachers to uncover a shared process of meaning about the construction of their environment (Field Notes, September 2002). Sheeba used photographs to document the 'before and after look' of the art area. In this way she was demonstrating to parents how the teachers were challenging themselves to make their thinking visible. The teachers, by sharing the narrative of change in the art area, created a space which invited parents and children to engage in the ongoing process of research about how children learn and develop. If there is deep learning on the part of the teachers and parents there is likely to be deep learning on the part of the children (Krechevsky & Stork, 2000). The photos and ensuing discussions were a way for the teachers to share information about some of the principles Reggio Emilia Approach with which they were themselves experimenting. Each day, as parents brought their children, they would look at the physical changes to the environment as well as the photographically documented process. Seeing the teachers' enthusiasm and their children's interest motivated the parents to be more engaged in the daily changes and discuss them with each other, the teachers and their children. Through these brief discussions,

the parents began to move from interest in only their child to taking an interest in what the other children were doing. When the parents began to contribute their opinions about the changes, documentation as a learning process began.

Jennifer Gore (1993) notes "enormous obstacles are faced and indeed, created by those who seek (and seek to understand) new pedagogies. Many of these obstacles arise from the fundamental tension in pedagogy itself that requires of those who seek to change it, their participation" (p.xi). Pedagogic documentation can open up possibilities of critically and reflectively challenging our current practice. Stedman (1991) suggests that as well as being aesthetically pleasing pedagogical documentation can also be morally and ethically satisfying as a tool for unmasking dominant discourses and collectively constructing counter-discourses. It can contribute to a deepened self-reflexivity and tell us something about how we have constituted ourselves as teachers as it helps us tell a story about ourselves. Visualizing practice through this process alternates "between different focuses: one's own experiences, on gaining a theoretical understanding of what is going on and on the philosophical and political values that determine the directions and visions for the pedagogic work" (Pence, 1999, p.154).

#### Why Change the Art Area?

In our September interview, Sheeba's response (Field Notes/Interview, September 2002) showed that she was very aware of what type of "aesthetic eyes" (Piazza, 2002) she was using to observe. She had identified the area as

*too disorganized and cluttered. We realized that materials were all over the place. they weren't sorted into any categories. Materials were thrown into any box and put on the shelf. I found it hard to find anything so why were we expecting the children to be able to find the appropriate materials they needed to create.*

Through dialogue and conversation Sheeba was re-examining some taken-for-granted assumptions about the role of the environment. She had observed that the context was not reflecting the value or belief of creating an invitation to build relationships with materials. It spoiled that possibility. The idea and practice of building relationships with materials moves beyond mere exposure at a sensory level. It supposes a theory of teaching and learning built on an understanding of the environment as providing problems or perturbations which put a child into operation or dis-equilibrium (Piaget, 1978). It also supposes an image of the child who will reciprocate in order to reorganize at a more advanced operational level because of those perturbations. Sheeba had used not only her aesthetic sense on the art area but also realized that the environment could promote representational thinking rather than mere sensory motor response (Piaget, 1978). Through listening

*We noticed the children talked about colours a lot but many of them didn't seem to know what colours were what. We decided we would introduce colours into the art area and light table activities. We started with one colour and every couple of days we would add another colour. We thought we would start with primary colours. We picked blue as our first colour. The children were able to transfer the food colouring with droppers to the trays (transparent egg cartons). One of the children with self-regulation challenges spent 1.5 hours transferring food colouring with droppers into trays with many sections (Sheeba, September 2002).*

Through observing and listening for points of view (Goldhaber, 2002) about children's intentions rather than creating distance and difference for what they did not know, Sheeba began to be more curious about seeing their different strategies. Her image of herself was changing as she became more of a researcher than a transmitter of information. Aware of each child's zone of proximal development (Vygotsky, 1995), Sheeba could begin to structure or sequence tasks and the surrounding environment so that the demands on a child at any given time were at an

appropriately challenging level. She was able to constantly adjust the amount of adult scaffolding to each child's current ability. Reciprocity had begun. Re-introduction to a food colouring activity could move beyond reactive attention to focused attention by encouraging a child to recall previously learned information that might be helpful; for example, what colours can be produced by mixed certain colours together. She might encourage children to represent their ideas using another medium, for example, coloured gels at the light table or by using the overhead projector. With pedagogical documentation Sheeba could provide children with a memory trace and means of revisiting their work and projecting further hypotheses for a new direction that work might take. A different image of the children was emerging.

### Beliefs and Practical Wisdom

"The manner in which knowledge is held (and) how that knowledge is put to use in exercising judgment" (Meacham, in Sternberg, 1999, p. 187) is influenced by our attitudes, values and beliefs. Knowledgeable early childhood teachers who are responsive and attuned to children convey their professionalism and the hidden (or tacit) dimensions of their practice through the environments they create and the interactions in which they engage. This perspective pays great attention to beliefs and intentions. Sheeba appears to be continually drawing on her personal and tacit dimension of practical wisdom (Sternberg, 1999). To clarify this tacitness, Snow (2001) suggests the metaphor of an iceberg, one third of which is seen above the surface. What happens on the surface is the way we are as professionals. Some of this is evident in our action but we are also involved in very complex decision making. Two thirds of the iceberg lies below the surface representing our deeper dimensions - or tacitness - that influence what we do. However, an iceberg is not fixed and does not exist in isolation. It influences and is

influenced by the environment. It has dark sides indicative of the unknown, penetrable cracks and crevices, hidden dangers where one may need to take risks and yet the iceberg conveys a sense of strength and power. Since knowledge may be perceived initially as concrete and identifiable it does have a tacitness or subjective element in the knowing as knowledge which is not transmitted directly but interpreted in the process of engaging in effective reciprocal relationships. Sheeba needed to demonstrate being a good listener (to herself and others) as well as expositor. That is, she was required to integrate professional, intrapersonal and interpersonal knowledge that reflect knowing, being and understanding (Gardner, 2002) as she examined her tacit understandings about the effects on the children of the newly co-constructed environment to act as a third teacher.

### The Role of the Pedagogista

#### Transparency

Filipini (1993, p. 130) defines the role of a pedagogista is to work with teachers in identifying new themes and experiences for professional development. She/he encourages openness to change and a willingness to discuss opposing points of view always promoting each teacher's autonomy rather than taking over a problem and solving it.

In mid-September, the pedagogista and I made our first visit together to Maplewood where Sheeba was working. The pedagogista noted

The teachers have arranged the art area into a mini studio with well organized materials, paper, and pencils sorted in same colour containers. They have found that the children are sitting now for longer periods of time and talking to each other. They told us that the children have art materials out but they don't seem to know what to do with them. They wondered if they should be modeling what to

do with the materials. The room is very bare and not inspiring. The art area is the only space in which there had been any attempt to consider aesthetics in the arrangement. The children were mostly playing with the Fisher Price toys. There was not very much engagement obvious in the children's behaviour in the room (September, 2002).

Sheeba wrote

*We are at a standstill. We are having trouble trying to get the children more involved. They don't seem to be interested in doing a project of any sort. We have many young threes and under threes children who are more into playing with toys than art. It's hard to get information out of these children. We know what types of activities they enjoy so we provide this for them. As for a project, it's very challenging.*

### Establishing a Community of Learners

As a more established member of the community of early childhood practice interested in the principles of the Reggio Emilia approach, the pedagoga began to help Sheeba and her co-teachers understand that practices that count in the early childhood community are not fixed entities but rather we "extend, redirect, dismiss, reinterpret, modify or confirm - in a word, negotiate anew - the histories of meanings" (Wenger, 1998, pp. 52-53) of all of their activities. This view provides us with a way to see ourselves as learners, a community of learners constantly and actively involved in producing our own learning in a situation, and not simply being shaped by powerful outside forces or as passively absorbing knowledge. The knowledge produced is built on and tied to the ongoing history of practice in a specific community of learners. Communities of learners in practice produce community-specific ways of doing things (Wenger, 1998). Eventually these practices tend to take on more tangible forms which he refers to as artifacts of the community of practice. Such community produced artifacts are critically important for understanding how objects and spaces, as well

as words and gestures end up being used in social interactions.

In my October interview with the pedagoga, she described how important it was to be flexible, to listen and move slowly. When teachers are ready to change, they listen, take time and build trust in a relationship that cannot be rushed. The pedagoga has to be gentle and strong as well as credible and accepted in her support of teachers' observation skills and their ability to reflect and listen to children as they express their theories.

### Environment as the Third Teacher

The pedagoga listened to Sheeba's transcription of a children's conversation at the Light Table with yellow food colouring and droppers.

*We started to put only one colour and incorporate the colour in every area of the room. We started with yellow at the light table. We had yellow food colouring in the water table. We had yellow things in it. Yellow paint in the art area. I'm not sure why we chose yellow but just happened to be the colour (September, 2002).*

Look how much I can put in here.  
It's only yellow. We need more colours, yellow is boring.  
Yellow is fun because it's good.  
It looks like poison. It's poison for your body. I know poison is yellow.  
You can see through yellow.  
Yellow is in the rainbow.  
It's hard to get the water into the tubes. You have to pinch it really hard.  
Our eyes are see through. We need goggles on our eyes when we go underwater.

The teachers, tending to focus on the sensory and reactive attention attributes of the children, wondered if the children would be interested in magic potions or perhaps transparency. The pedagoga attempted to support the teachers moving the children to more abstract behaviours by providing opportunities for them to represent their thinking symbolically. She also drew attention to the aesthetic aspects of learning by suggesting the teachers consider elements related to colour - texture, shape, line and pattern. Since there was a very wide age range of

ability levels, the group would likely need to experience the possibilities sensorily. For example, feel different kinds of yellow paper, listen to different sounds of yellow paper, see a range of yellows at the light table. The teachers could use an overhead projector as a tool to heighten children's awareness of shadows - do they have a colour? Making the children's thinking visible through pedagogic documentation could support the teachers' decisions in their ongoing construction of a 'literate environment' (Goldhaber, 2002). That is, an environment that has simple and complex invitations allowing children the idea of revisiting their thinking with different materials (Field Notes, September 2002).

With these suggestions, the pedagoga assisted the teachers in changing their environment to be a third teacher. Malaguzzi (1993) accentuates the significance of the environment.

In order to act as an educator for the child, the environment has to be flexible; it must undergo frequent modification by the children and the teachers in order to remain up to date and responsive to their needs to be protagonists in constructing their knowledge. All the things that surround the people in the school and that they use - the objects, the materials, and the structures - are seen not as passive elements but on the contrary as elements that condition and are conditioned by the actions of children and adults who are active in it (p. 177).

### Possible Interpretations of Change Processes

Wenger's (1998) notion of artifacts of practice could offer an interpretation for the children's responses to the changing environment. During our October (2002) visit, the pedagoga noted the same behaviour that Sheeba reported.

The children were mostly playing with the Fisher Price toys. There was not very much engagement obvious in the children's behaviour in the room.

Wartofsky (1979) describes artifacts as helping us shape our meanings.

His concept of artifacts as capable of being interpreted at three levels of complexity is

useful for analysing what the teachers and children were encountering when participating in their newly constructed practices based in the principles of Reggio Emilia. He suggests that 'primary artifacts' are the tools or things used in practice on a practical level. Primary artifacts embody and preserve past practices in their forms, for example, furniture and realistic (Fisher-Price) toys. Secondary artifacts are representations of primary artifacts and represent past practices on a symbolic level, for example, visual symbols, words, engravings, signs, paintings, recipes, songs, photos. Tertiary artifacts are, in his analysis, imaginary modes of representation that draw on secondary or primary modes but are not bound by them. This level of artifact provides the means of change, that is, to perceive alternatives to the real world - a form of imaginative praxis. At this level, artifacts are like places that can be 'lived in perceptually' and that therefore 'colour and change our perception of the "actual" world (p. 209).

To combine Wenger's and Wartofsky's positions, the teachers and children entered into a new community of practice, that is, the art area. They did not know how it operated. A first impulse could be to regard the children's actions as typical of young children at this stage of development and that the new materials were developmentally inappropriate (NAEYC, 1993). However, Wenger's notion of communities of practice can provide another interpretation. The children could be engaged in a practice rather than exhibiting behaviour characteristic of a certain stage of development. Perhaps they were interpreting the changed environment through tools provided by their communities of practice, that is, they may have been using practices typical of another community. For example, the children used sensory motor play with plastic representational toys in this new community of open-ended art materials. If we assume the image of these children to be active negotiators of the meaning of practice, they apparently

noticed and chose to attend to familiar practices with familiar toys. The children's attention was very different from that of the teachers. In this relatively new context the children's activity could be interpreted as a legitimate way to participate but not one that the teachers wanted to now endorse. Without verbal mediation or modeling it could be difficult for the children to pick up new practice.

From Wartofsky's perspective the Fisher-Price toys embody historically constituted forms of action. "What we have learned to see something 'as' becomes in turn the guide for practical activity" (1979, p.207). As things that easily afford some kind of involvement the toys are a good example of primary artifacts. The art area as a secondary artifact offering opportunities to represent past experiences and practices at the symbolic level says to those who can read it, that it is a space for exploring and developing ideas. The children may have had trouble because this was not stated and clear to them and still outside their current sets of practices.

From the Vygotskian perspective, children's learning is dependent on the kind of support they receive from others, either peers or adults involved with them in the learning process. Vygotsky believed that adults and more expert peers can scaffold other learners' growing understanding a zone of proximal development where children share their ideas with others and learn how to listen and give feedback to other children in a learning group.

#### Documentation: Making Change Transparent

The pedagogista suggested documenting with photos and text how the children entered into new experiences with the art materials. As secondary artifacts, photographs can be a rich resource for understanding children's learning and our own as teachers. They slow down activity and provide a static and visible moment available for analysis and reflection of the social

construction of our gaze. We can begin to see ourselves and the roles we have chosen recorded in the choices we have made. As relatively inexperienced participants in the new art area, children may have misread the context.

By October, 2002 the pedagogista wrote

The teachers had made some changes in the room. They had hung two strips of transparent fabric up as a room divider that gave the room a more cosy feel. There is still lots of unattractive space especially on the bare brown backs of shelves. The art area seem to be working well. There were two framed panels of documentation. In the second documentation, the teacher had recorded the children's conversation and taken photographs of them making a square with sticks, using them as a fan and building a fire "to keep us warm" and "rubbing two sticks together to make a fire". I was excited about all these ideas bubbling out of the children. The teachers, however, did not appear to have picked up on these ideas. Instead, they had set up a bookshelf of books about space and were trying to think of ways they could investigate the topic.

There seemed to be a genuine desire from the teachers to change their program and environment inspired by the principles of the Reggio Emilia approach. They certainly had begun to make some changes but as the pedagogista added

(they) seem to need a lot of help in identifying appropriate topics and creating a more aesthetic environment that will act as a third teacher.

Fraser (2000) recommends that teachers may find it helpful to begin the process of planning their environment to act as a third teacher by thinking of their own values. She also recommends that teaching teams share their values with members of the community, for example, parents before examining the space in an environment to see what needs to be changed.

### North Shore Neighbourhood House : September-December 2002

Magda and Kim returned to their practice each with different perspectives. For Magda

*having the experience of working as a teacher helped me take away more from the Conference. It helped me focus on my goals and allowed me to have an idea of how to plan ahead. I went back to my classroom full of ideas and other things that I wanted to do to the environment, things that I wanted to do with the children (September, 2002).....I am going back and forth between my goals. It's a little bit challenging but fun. It's impossible to focus on one goal and see it through to the end. Instead, I've noticed, it is a process that takes time to evolve and in the end comes together. All of my goals are dependent on each other. After reading my goals over and over again I see how they all connect together...all of us working together, collaborating on ideas and exploring further investigations to bring us to the reflective thinking process (Magda, September 2002).*

### Differences in Beliefs and Practices

Magda appears to have identified several key interlocking principles. She seems to be implicitly identifying her own image of herself as a teacher, the relatedness or reciprocity of her goals for the children and the construction of the environment as the third teacher.

For Kim, after the Conference, her goals seemed to be organizational, knowledge and skills oriented. For example, how and when could staff meet together to connect and respond to each other's ideas; how was the physical space used; did the daily schedule work for programming; possible ways to build reciprocity with the environment. In mid-September she wrote

*It seems that I won't be able to complete my goals. Some of my steps will have to be baby ones. I really wanted to look at the schedule and change it around. However, I do not think that the staff is ready for it. They are very resistant to change....I had to go back in my own mind and think about all the struggles and challenges I had when I first started. I was very frustrated by staff because they were not involved....but now I realize that maybe each teacher needs time to find their own way of being involved. A few weeks ago, this staff was describing our activities with children as the "Magda and Kim Project". Now I have heard them call it the "Children's Project".*

In mid-September, support staff who ensure the inclusion of children with special rights in ongoing activities, described themselves as 'onlookers of a fast and constantly changing process with which they were unfamiliar' (Field Journal, September 2002). They requested a slow down. They wanted to discuss why certain activities were taking place and why so many photos and notes were being taken. Bruner (1973) suggests that there may need to be an excess in time, even a waste of time, for transformation of learning to take place. underscores their request. That is, an individual may well need to feel comfortable in regard to the knowledge possessed and the amount of time available before a new set of insights can emerge.

### Making Change Transparent

#### Environment as the Third Teacher

The support staff wanted to slow down the emerging exploration and narrative of the children's dreams about monsters and ultimately the exploration of gargoyles. This had been provoked by a child's recounting of a fire that had taken the lives of two occupants apartment building. Magda's position was

*How can a teacher choose not to learn? I think that says it best how I feel. I wanted to section the room. I wanted the room to help me work with the children. Little group work and discussion is what I kept in mind. I wanted to provide the children with some private spaces that are going to help them learn by stimulating their thinking. Their environment has to reflect their ideas, our values. By changing some areas, adding new ones and by making other areas more enclosed the room has changed for the better. The children responded very well to those changes and they became very engaged with the new tools and materials that were available to them. Our room became more a place where everyone can find something interesting to do...by working in smaller groups children with special rights are going to be able to participate on a less distracted level. This will also allow the support workers to engage the children in more peer social interactions (Magda, September 2002)*

On our September visit the pedagista remarked

The teachers have created a very appealing environment. Lots of interesting ideas are visible in the room, for example, an investigation about dream catcher. Magda and Kim told us about how one child had experienced a tragedy in her apartment. Her neighbours, an elderly couple, had died when the apartment caught fire. This traumatic experience led to a lot of talk about bad dreams and monsters.

In an interview with Magda, before observing her with the children, she confirmed

*The environment is changing from one day to the next. We are trying new things to find a comfortable balance. By making so many changes the teachers are now talking more to each other about what to do next and most importantly they are asking "Why?" I feel that the children are slowly finding themselves in the environment and are beginning to enjoy it through learning from it. Their interactions with each other and materials are more meaningful and complex (Magda, September 2002).*

#### Documentation

By making children's thinking visible through documentation, parents were able to see their children's learning processes. One parent, who looked at the children's drawing and paintings of monsters and the scribing of their fears about bad dreams, offered to 'have the children watch' how to make dream catchers.

Early childhood education is grounded in a belief that doing is very important. Piaget (1978), Montessori (1949) and Froebel (1970) have instilled the notion of learning through the manipulation of materials. However, the adult's role involves a significant amount of talking to children as they handle the materials. Children's observation of adults modeling behaviours has taken on less importance. Rogoff (1990) suggests that from a traditional child-centred perspective observation with explanation is viewed as a passive activity.

Mainstream middle class researchers, who rely less on observation, tend to think of it as passive. However, it is clear that children and skilled adult observers are very active in attending to what they watch. In the guided participation of children, in cultures that stress children's responsibility for learning, children may have the opportunity to observe and participate when ready in the skills of the community and may develop impressive skills in observation, with less explicit child-centred interaction to integrate the children into the activities of society (p. 129).

Wenger (1998) states that

For many of us, the concept of learning immediately conjures up images of classrooms, training sessions, teachers, textbooks, homework and exercises. Yet in our experience, learning is an integral part of our everyday lives. It is part of our participation in our communities and organizations. The problem is not that we do not know this, but rather that we do not have very systematic ways of talking about this familiar experience (p.8).

For some children (and adults) learning through observation may be very important in their cultural contexts. To foreground active exploration by narration may mean that for some of the children their learning modes are not respected - even silenced. While making the dreamcatchers there was little conversation. The children and teachers were urged by the parent to watch and listen, not question but copy. During this experience, two support staff demonstrated interested participation.. They expressed appreciation of this style of learning and hoped to get more involved.

After making their individual dreamcatchers, five children and Magda constructed a large collective dreamcatcher "for our room to keep other monsters away".

*Five children and I worked on it for a long time talking about the colours, beads as well as other materials. When it was finished the children decided to hang it next to the window. They looked at it and started talking about dreams and sleep yet again. Suddenly a child suggested that they should give this dream catcher to the 3 year old room because they need one when they have a nap! They also decided that we should make one for the toddler group because babies are scared of monsters (Magda, October 2003).*

During this time Magda wrote in her journal

*I feel that by watching how the children discover everything, the other teachers are getting pulled in deeper into the atmosphere of learning which is very important to me. I try to do everything very subtly. It has to be provoking, engaging, meaningful, fun, interactive, easy flowing and rewarding (October, 2002)*

During our October visit we looked at the beautiful documentation consisting of photos, children's drawings and conversations about the ongoing learning and knowledge that was being constructed. Members of the group were sharing their perspective about the topic under discussion. The documentation made visible how the group as a whole – children and adults – had negotiated a better understanding of the subject matter (Vygotsky, 1995).

### The Role of the Pedagogista

#### A Provocation

During our October visit Magda discussed the book selection she had chosen for the children. One of the books was about gargoyles. Magda was apprehensive about sharing this book with children. Her apprehension revolved around children having no direct experience of gargoyles. However, the pedagogista and Magda became co-creators in a joint activity, that of a field trip to downtown Vancouver. The purpose was to see the gargoyles at the Art Gallery.

The pedagogista shared how she had taken her own young grandchildren to the Art Gallery but their gaze was literally taken up high to the gargoyles displayed on the roofs of surrounding tall buildings. By sharing this story, the pedagogista was inviting Magda to become a co-learner with herself and the children. This kind of flexible planning, where teachers and pedagogista become co-learners with each other and the children, is known as 'progettazione' in Reggio Emilia. This dynamic process based on communication implies a system where

collegiality and collaboration support relationships amongst children, teachers and parents; and between the early childhood setting and the community.

Progettazione offers an interesting variation on Dewey's proverbial "lighthouse". Dewey envisioned a lighthouse metaphorically as a structure set up by the teacher as a guide which sets the destination, but it also illuminates enough areas that children or teachers may find port in a different, unanticipated place. In this instance the different, unanticipated place was a field trip. It provoked children's deeper interest in the exploration of gargoyles.

After our October visit the pedagoga wrote about the children's response to the trip

There were drawings, tracings and paintings of the gargoyles, transparencies of gargoyles projected on the wall and the children had begun to use clay to sculpt their own gargoyles. They had added a large mirror to one wall in the block corner. Magda asked three girls to tell me about their trip to see the gargoyles. They sat down with me and told me that there are different kinds of gargoyles, ones that sit on the corners of buildings and have wings and feet with claws. This is so they can fly down at night and carry away bad guys. There are also gargoyles that don't me, they told me, as they are spouts and water comes out of their mouths. I asked them what kind of skin did they see on the gargoyles. "Rough", they said. I wondered if this needed more investigation especially as they will not be working more with clay and could show the texture on the surface. I was very impressed at how much they knew and the details they had observed.

In early November Magda and Kim presented documentation of the Gargoyles to a class of in-service early childhood teachers. Reflecting on their presentation and the questions it engendered, Magda commented in our November, 2002 interview that

*It was a lot of fun and a great way to put all of our ideas in perspective.  
It allowed us to reflect upon the whole experience and realize how far  
it has come along.*

Halloween brought a visit to a local pumpkin patch and Magda was curious about the impact on the exploration and representation of gargoyles. The children clearly stated  
We have finished with gargoyles!

Not giving up immediately, Magda used the overhead transparencies she had prepared for the adult class presentation to see if they would provoke the children's thinking further.

*We looked at all of the pictures and we talked about what we'd learning.  
It was a great way for the children to reflect upon their learning.*

No further engagement occurred even though Magda tried to continue with eight different children both boys and girls asking them if there was something different they could learn about gargoyles, but these children all said

No, we are all finished!

#### December Reflections

In a December interview the pedagoga and I discussed how the teachers at North Shore Neighbourhood House seemed to have embraced the richness of Reggio curriculum so brilliantly yet at Maplewood the staff continued to be distressed at the high level of sensory motor play in which the children were engaged. For example, the blocks were being used for weight lifting or weapons. Blocks and other materials were dumped and not cleaned up.

The problem seems to be that it is difficult for the teachers to develop a cohesive group because many of the children attend part time. There is a wide range of ages in their planning and new relationships between adults and children are ongoing being constructed (pedagoga, December 2002).

Although the children explored materials, especially from the art area as well as blocks, the outcome seemed to be constant disagreement and disruptive behaviour often about possession, turntaking and shared understanding. The staff did decide in December to rearrange the room to provide the children with more space for large motor movement but limit the number of choices available.

*The block corner is such a popular place with our children that we decided to figure out first where we wanted it to go, how large it should be, where the platform would be best placed to promote group construction and then we would build the rest of the room around it.....We found by moving the furniture around and creating smaller spaces for other activities except blocks the children were making better choices about where to play....and staying there. In the block corner what began as a few buildings turned into bridges. We got some books and tried making bridges with other materials but then it just ended. We weren't sure if we had done enough. We discovered that the children weren't so much interested in the idea of bridges but of buildings - creating and knocking them down. They were still experimenting in a more sensory than representational manner (Kim, December 2002).*

The pedagogista wrote

I feel that the children who are still responding in a physical way are probably trying to get to know the other children in their own sensory way that is very typical of young children coming into a new group. Teachers just have to let that happen before the children are ready to settle down and focus attention on anything else other than "who are these other kids and how do I fit in?" (December, 2002)

At North Shore Neighbourhood House, investigation of the gargoyles was carried out by a group of four year old children who were socially engaged. They had been together in this child care centre since they were three years old, some even earlier as toddlers. Their teachers had a

history with the centre as a whole and a reputation for exploring interesting topics. There was an added expectancy from children, perhaps parents too, that this context served to prepare children for entry into Kindergarten although still a year away. Many of the children already had some kind of relationship with the teachers in this room. There was familiarity as well as expectancy. Additionally, this group of children were comfortable about including children with disabilities or special rights.

Children with special rights need to feel they belong through participation in the group. By being a member of the group they get the opportunity to develop social relationships which are the catalyst for learning. Mallory and New (1994) remark that the social constructivist paradigm addresses sophisticated understanding about the ecological context and transactional dimensions of the lives of all children. When children and adults work in groups they can share their individual perspectives and points of view. To make the group function effectively, they are challenged to make their thinking visible and to become sensitive to each other's strengths and weaknesses. They learn to negotiate with others to achieve group ends. Additionally, as theories that were once believed to be true especially around developmental concerns have begun to be questioned, teachers now need to be engaged in an ongoing process of research in how children learn and make meaning of their experiences and less of what they need to learn. In the North Shore Neighbourhood House context Magda and Kim both had considerable experience working in a trans-disciplinary way with other professionals, for example, with speech language pathologists, psychologists and occupational therapists in negotiating contextual changes they needed to scaffold the participation of particular children.

### Beliefs and Dispositions

In a review of the literature regarding teachers' changing beliefs and pedagogical practices, most of the extant studies focus on the implementation of, as opposed to the process of coming to reflect, interpret, understand and implement an approach. However, a major theme that emerges from these studies focuses on the importance of teachers' backgrounds and views or dispositions.

By making connection with their prior knowledge (and practice) when teachers engage in professional development, for example, a conference, they can become actively involved in learning that is compatible with what they already know - "new learning.....invariably..... shaped by old learning" (Grant, Peterson & Shojgreen Downer, 1996, p.534). Magda's statement about her goals after the conference embodies a way of knowing that involves expert knowledge (including personal/professional, theoretical and practical knowledge) and sound judgment (Fish & Coles, 1998; Sternberg, 1990). Besides reflection, such practical wisdom has affective and experiential qualities as well as a moral ethical dimension. Feldman (1997) draws a distinction between three varieties of wisdom. First, wisdom of practice which refers to expert knowledge is readily identified and would therefore include the factual or content knowledge indicative of a particular profession. Second, deliberative wisdom that grows out of analysis, consideration and reflection is associated with the ways in which a professional reconstructs, recodes and applies expert knowledge. The third variety of wisdom in practice (Feldman, 1997, p. 757) is oriented toward the experiential aspects of thoughtful action in practical situations and has emotional as well as ethical and moral connotations. In combination, these components reflect practical wisdom. Higgs & Titchen (2001) provide further insight into the nature of practical

wisdom when describing what they call practice wisdom. "The possession of practice experience and knowledge together with the ability to use them critically, intuitively and practically....these qualities, skills and processes and their blending are built up through extensive introspection and critical reflection and review of practice" (p.275).

Characteristics of practical wisdom described by Fish (1998) include intuition and ability to learn through engagement with the environment. Magda demonstrates such intuition as she sees through things, reads between the lines and interprets messages gleaned through interaction with the social and physical environment. What are the deeper meanings so important to children, the ones that drive their investigations and cause them to abandon our reality and enter into their imaginative worlds? Giovanni Piazza, an atelierista in Reggio Emilia, terms this "entering the irony" and when children and adults do this together there can be amazing transcendences, for example, a dreamcatcher to protect babies. When children can experiment with materials and become more skillful in using tools they expand the fluency of their expression of ideas and imaginative theories about how the world functions. However, materials are offered in a context of time, space and relationship. As Magda lives and experiences her profession she is developing and displaying wisdom in practice. While expert knowledge associated with the wisdom of practice may be identified in terms of content knowledge, practitioners within practice situations actively reconstruct what is known as they make professional adjustments in particular situations of time, space and relationships.

After the Conference Magda, Kim and Sheeba returned to their worksites with great enthusiasm (Field Notes, September 2002). I listened to their conversations about their enhanced 'professional artistry' which refers to the hidden or invisible aspects of practice including professional judgements that contribute to action and decision making (Fish, 1998).

The association between artistry and practical wisdom draws attention to the fact that it is only possible to develop and display wisdom in practice within the parameters of living and experiencing the profession (field Journal, September 2002). These hidden dimensions of practice that are indicative of practical wisdom are more difficult to articulate than are the knowledge content areas and skills required by early childhood teachers.

Immediately after the Conference, Kim's goals were wisdom of practice issues - organizational. Sheeba's goals seemed organizational yet based in developing relationships amongst children, adults and the environment. Magda's statements seem to capture Dewey's (1938) description of thinking as a method of reconstructing experience. It is a method of reflecting on experience; it is a uniquely human activity and is our only reliable guide to further action. It is crucial such reflection be recursive: that once accomplished it acts as a guide to further practice, itself the occasion for further reflection (p.141).

In this ongoing process, the past and present provide a basis for the future without limiting or tightly controlling the future. Dewey states that "the principle of continuity of experience means that every experience both takes up something from those which have gone before and modifies in some way the quality of those which come after" (1938, p. 35).

Lilian Katz considers beliefs as "pre-dispositions". She uses the term "dispositions" as a summary of actions observed (Katz & Rath, 1985, p. 302). It may be more respectful to strengthen already existing dispositions rather than trying to change beliefs which may have ethical implications attached. Rath (2001) suggests three elements that might constitute a collection of categories to identify dispositions. One set of dispositions would be to strengthen the value of knowledge. The second has to do with collegiality, to unite in association to advance professional goals. A third general area is that of advocacy. The advantage to

aspiring to guide changes in dispositions seem to be first: because dispositions are closely related to skills and practices, the focus seems to move away from the ambiguous ethical topic of beliefs; second, because dispositions can be designed at a level of abstraction, not micro or macro but practice related, teachers might be more likely to agree on a set as a particular focus. Finally, dispositions can be strengthened by modeling and through guided experiences - one of the roles of the pedagogista. For example, the pedagogista's particular focus on yellow in the art area at Maplewood or the suggestion about a visit to see the gargoyles at the Vancouver Art Gallery are both examples of strengthening the value of knowledge, collegueship and affirming the community of learners.

### Conclusion

I was intrigued by the marked differences in teachers' interpretations of changing relationships with and through the environment as a third teacher. At North Shore Neighbourhood House, rather than understand identity as a static and essential notion of selfhood, the actions of the teachers to provoke children in an exploration of their families implied a subjectivity where individuals do not separately define themselves independently from the world. Rather there was a sense of being in family and community where specific languages and discursive practices are embodied – an intersubjectivity. The experience that the child shared with her peers about the fire in her apartment building was subjective and involved the whole of her, both her feelings as well as cognitions. Social participation at a group time was the stimulus for cognitive development for children and teachers. As the teachers listened to the child bringing significant cognitive and emotional knowledge to the learning situation and being capable of constructing knowledge (about monsters being

responsible), they realized a different attitude was required of them. At this delicate moment there was some realization by teachers that this was not a child to be filled like an empty container. It became necessary for them to redefine their image of the child/children, themselves, learning and the environment. For such changing images to persist, the teachers needed to be curious about their own authenticity as teachers and try to understand children's original processes of constructing knowledge that are different from adult ways. By making these processes visible the teachers would avoid hiding them and substituting their own ideas about including or excluding children's learning.

Before a collaborative investigation could begin, the children at Maplewood went through processes for establishing social relationships for many weeks. Through observations of a specific area in the environment, Sheeba re-organized her thinking with more insight and on a higher level after attending the conference. Her observations also provided a shared process of meaning with her co-teachers about the construction of their environment. She scaffolded re-examination of taken-for-granted assumptions that had not included the role of an aesthetic environment which invites children to build relationships with materials and promote representational thinking. She became a researcher of evidence, responsively attuned to children by conveying the tacit dimensions of her practice through the environment she was creating and the transactions with which they were involved. She was paying great attention to her beliefs and intentions.

In the following weeks, Sheeba's co-teachers kept observing and listening to the children but were unsure what they were looking for. The teachers were aware that external things, for example, an interest in building could be behind the group's impending researches.

They were aware that an educational study could develop from a context to concept. The attempt to capture this most delicate and challenging moment was pivotal. The group seemed ready to take a step toward learning. At this crucial point, listening to children played a significant role in energizing the teachers' professional artistry, that is, the tacit dimension that connects practical wisdom and decision making in living practice. Kim introduced the overhead projector at a 'delicate moment' to scaffold the group's emerging social relationships and intersubjectivity as a stimulus for cognitive exploration of castles.

Magda was also listening to her own beliefs and intentions. She described precisely the co-construction of the environment that would act like a third teacher.

*I wanted to section the room. I wanted the room to help me work with the children. Little group work and discussion is what I kept in mind. I wanted to provide the children with some private spaces that are going to help them learn by stimulating their thinking. Their environment has to reflect their ideas, our values. By changing some areas, adding new ones and by making other areas more enclosed the room has changed for the better. The children responded very well to those changes and they became very engaged with the new tools and materials that were available to them. Our room became more a place where everyone can find something interesting to do...by working in smaller groups children with special rights are going to be able to participate on a less distracted level (Magda, September 2003).*

Both Magda and Sheeba demonstrated practical wisdom (Higgs & Titchen, 2001). "The possession of practice experience and knowledge together with the ability to use them critically, intuitively and practically.....these qualities, skills and processes and their blending are built up through extensive introspection, critical reflection and review of practice" (p. 275).

The pedagogista suggested changes to both environments, materials and documentations that assisted the teachers in beginning to be less literal and more literate about 'reading between the lines' and experience transcendence with the children. To do this she suggested

observations that might uncover shared processes of meaning for dialogue and interpretation, for example, of the environment, aesthetics, values and children's competence. In describing her role, the pedagoga used flexible, slow, gentle yet strong, credible and accepted, which qualities were evidenced as she co-constructed a community of learners with the teachers (and myself). For example, she shared her own 'gargoyle trip', suggested that Dar's castle building might offer social engagement as a stimulus for cognitive development as well as offered possible theories children might be building as they pursued the castle topic.

In Chapter IV, I investigate how provocations, disturbances and 'cracks' provoked the teachers' beliefs about children's constructions of knowledge through their relationships with materials.

## Chapter IV Provocations, Disturbances and 'Cracks'

In this chapter I cluster anecdotal data from the Gargoyles Project at North Shore Neighbourhood House and the Castle Project at Maplewood Child Care into three themes – provocations, disturbances and cracks. Provocations, which take place in a relationship, are intentional, governed by sentience and guide praxis (Van Manen, 1990).

Disturbances take place in a relationship are random or unexpected. They may provoke perception and feelings but interrupt practice (Van Manen, 1990).

'Cracks' are the transitions between children being involved in a project that has lost momentum and a new topic of interest to investigate. It is the location or an opportunity for teachers to stop, listen and observe and then negotiate a plan that suits the group interest (Fraser, 2003).

I use this trinitarian framework to investigate the possibilities of change in teachers' beliefs and practices about their experiences with and observations of children's relationships with materials in an environment that acts as the third teacher.

### North Shore Neighbourhood House

In December 2002, I interviewed Magda about the Gargoyle Project. This project was based on thinking and acting by means of interpretive criteria and educational practices that were not separate and in opposition. Rather, close connections and relations between the rights, expectations and experiences of the children, teachers and parents were maintained. An essential challenge that Magda faced was that of modifying her idea of herself as a teacher who is the holder of certain knowledge that is taught to children.

Magda described how by listening to children it is possible to recognize their specific competencies to build a community of learners which includes herself. Listening enables her to discover the possible, specific qualities of the various contributions that children (other teachers and parents) can make. She seems to have discovered the quality and generative richness of exchange and dialogue from the different points of view.

*It comes from watching and listening to children and as well as watching and listening to yourself. It comes from respect. You treat everybody the way you want to be treated and I think this is what a teacher should be about. Not only know about children and what ages and stages they develop but getting a chance to know the children individually and in order to get that deep you have to be honest and open yourself with them. Sometimes I get them really excited and it's hard to bring them back because that line is there but sometimes we're friends rather than having just the teacher-child relationships (December, 2002).*

Magda appeared to be constructing a context that fostered communication and participation by conveying that everyone is considered to be competent in constructing their own learning and contributing to the learning of others, including the experience itself, for example, a child's recounting the story of the fire that burned down her apartment complex and the deaths of two residents.

Communicating means exposing oneself, and, who would choose to expose self in a context that is indifferent, unappreciative or judgmental. Magda seemed to be describing listening, like speaking, as a creative act, one that involves conscious effort (Bickford, 1996). She tries to perceive each of the children (and adults) as unique and yet not unsituated. She describes what this sort of auditory perception requires from her. Weil (quoted in Bickford) argues that one should value not something 'in' or 'about a person' but simply the person himself

.....the whole of him. The arms, the eyes, the thoughts, everything.....in reading

other people, I must be careful not to impose my own preconceptions on them: I must be ready to perceive the unexpected, to see them as who they are in themselves, not as I want them to be (Bickford, 1996, p. 145).

Bickford describes this position as 'hyper-receptive'. From a Taoist perspective listening is exactly this state of being (Personal Communication, Bai, 2002).

### A Provocation and a Disturbance

In an interview in 1993, Malaguzzi, one of the founders of the Reggio Emilia

Approach responded to a question about relationships and learning:

In reality, the two-way direction of interaction is a principle hard to miss. We imagine the interaction as a ping-pong match. (Do you remember the badminton games between two boys, splendidly recounted by the great Gestalt psychologist, Max Wertheimer in *Productive Thinking*, 1945?) For the game to continue, the skills of the adult and child need appropriate adjustment that allow the growth through learning of the skills of the child. (p.68)

As is not uncommon in September when many new children enter early childhood

programs, Magda and Kim decided

*.....a good way to get to know new children and families was to do a project on families. Having children bring in their photos from home and tell stories about their family. So far it has been very interesting and a bit funny to hear how children talk about their families. One boy was telling about his grandpa and how much he snores when he sleeps in front of the TV! (Kim, September 2002)*

This intentional provocation took place in new relationships. Magda and Kim began the "ping pong match" that would guide their practice – a project on families. One of the children's responses to the provocation was an unexpected disturbance that interrupted the situational plan and provoked a new level of perception and feeling amongst the children and adults. The child was living in an apartment building that very recently burnt down. During the fire two of the elderly occupants died. The child blamed the fire on a bad monster.

Her traumatic experience actually became a gift in disguise, in that it exposed unknown unique aspects of that child to the teachers as well as the other children, but also showed what makes us the same, our vulnerability. The child's story converted incidence into significance for the group. For the rest of that week the children wanted to discuss the event and talk about the things that scared them the most. Magda and Kim were very curious as to why the children chose this topic and what were they trying to figure out. As the teachers listened, they heard how the children were really trying to figure out what scared them and why, in particular, they were so afraid of dreams in particular.

The children chose dark paints and charcoal to represent their monsters. They experimented with constructing small clay monsters perhaps to physically take hold of their fears and manipulate them. Their skills with representational materials were varied but their shared interest in exploring fear predominated as the teachers scribed the children's accounts of their dreams and nightmares about monsters. They welcomed scary stories such as Where The Wild Things Are by Maurice Sendak as more evidence of the existence of monsters. They sang monster songs, constructed monster sounds and listened to monster music. The lighting was subtle from several different sources rather than overhead. The atmosphere became one of safely being scared.

For some of Magda and Kim's co-teachers, unpacking dreams did not figure comfortably into their image of a child. They want to say, "It's OK, it was only a dream". In their need to protect the "innocent child" (Pence, 1999) it was a challenge for them to shift 360 degrees and see the children as competent and desiring of dialogue about the scary content of their monster dreams.

In our September interview, Magda responded that

*A lot of it comes from the children, what they want to do, what they are interested in. I actively play with the children and build on their leads and their interests. Very often they play a lot of things that are everything and nothing. At the same time but there's frequently a repetitive pattern or underlying theme that continues everyday and it gets different and more complex and more children are engaged in it and so that's what I look for. But also I look at what I know, ideas about their understanding of things and try not to pick things that I can explain to them in two minutes and then move on. I like it when both I and the children are faced with a challenge and I have to learn together with them.*

#### Transparency : a Further Disturbance

Through pedagogic documentation of artifacts – drawings, paintings, clay figures and scribed narrations - teachers made the children's thinking visible to themselves as well as their parents. If any doubt still lingered for some co-teachers about the emotional and psychological security of investigating dreams and nightmares, a further disturbance occurred. This surprise, in the form of a parent's offer to demonstrate how to make dream catchers extended the 'ping-pong' game further. During this socially embedded process of dreamcatcher making the children learned to watch very carefully rather than ask questions, although some co-operative dialogue with the parent did occur as the more knowledgeable member during this challenging task. However, it was through guided participation and scaffolding beyond their zone of proximal development (Vygotsky, 1995) that the children learned how to think and behave in ways that reflected the diversity of their local community's culture.

#### A Staff Disturbance

Still concerned about the extension of the in-depth investigation of fears by young children extended to include gargoyles and a possible field trip, some staff sought

a slow down in the topic. This unsubtle disturbance may have been due to a lack of uneven reciprocity which I wrote about from a different perspective in Chapter III. In my Field Journal (October, 2002), I made several entries about the differences in perspectives between Magda and other staff. I was very curious about what kind of resolution there might be and what role I should play or resist playing. Magda responded

*The whole idea of the Gargoyle Project was the extension of the family and buildings and how the child's building caught on fire and monsters who cause problems and....another child's father was fast dying of cancer. So if we've gong through death together what's so wrong with studying gargoyles! Being able to talk about this stuff openly and freely and just helping the children understand that it's just part of life is exactly what we're trying to get them to do. Trying to do with them not to them and in their environment, their early childhood program where they are here for ten hours a day...and then going into the real world and making the right choices for them and believing in themselves (October, 2002)*

Magda seemed to be asking how can we help children find meaning in what they do, what they encounter and what they experience. And can we do this for ourselves? Children have a difficult search with so many reference points in their daily lives yet living without meaning precludes any sense of identity, hope or future. Children know this and they have the desire and the ability to search for meaning if we listen to them. Their theories may be provisional but can be continuously reworked through the materials we offer them, for example, paint, clay, overhead projector, light table, story, song and dance. If we listen to them and support their input, a world which is not intrinsically ours is transformed into something shared. We become a learning group together as we represent through a 100 different languages.

#### Light Table Disturbance

Ben demonstrated his desire and ability to search for meaning through the language

of the light table and Magda again demonstrated another aspect of her listening. Prior to Ben's entry into Magda's class, co-teachers had shared their reflections with her about how to "manage Ben's behaviours".

The Light Table offered a way for Ben to demonstrate his interest in representing Gargoyles graphically. Located in a quiet corner, its illumination provoked intense attention. As a small provocation on the Light Table, Magda had placed transparencies of photographed gargoyles to trace. Similar transparencies were available at the overhead projector where the image could be changed in size depending on distance of reflection. Ben began to use an increasing amount of self-talk at the light table as he spent longer periods of time refining his tracing. As discussion of the projected field trip occurred more frequently, Ben became very vigilant about being at small group discussions. He would gain entry to the group by offering to show his tracings and he was able to maintain connection about the topic verbally. Using the tracings as a beginning step towards symbolic representation and more abstract behaviour rather than a sensory motor style of exploring materials also provided the opportunity to initiate entry into the peer group. His desire to explain how he had achieved the tracings might imply that he had been aware of some expected level of participation with his peers on a shared topic, that is, the field trip.

Magda had been apprehensive about Ben's entry into her class but she listened.

*When I considered all these statements they still did not capture who Ben is or how my relationships and his relationships with other children would be.*

One explanation might be that, Ben's "being" could not be understood through Magda's co-teachers' prevailing symbolic order (Lacan, 1991); that is, those phenomena

which lie beyond the sense of, and thereby disturb, the stability of a teacher's expectations, assumptions or conceptual frames through which they understand practice. They may have experienced his severed behavioural activity (he had been assessed as having Attention Deficit Hyperactive Disorder) as mysterious or deeply puzzling. In these experiential moments, the co-teachers' symbolic order, through which understanding is achieved and supported by compatible action, became unstable. It was as though the disturbing phenomenon (severe behavioural activity) lay beyond the symbolic order which provided those teachers with meaning. Thus there was a need to re-establish meaning through a modified symbolic order (Lacan, 1991). However, the structure of a teacher's practice (that is, interacting with, ongoing observations, expectations, emotional states) will be different from the symbolic structure of her discourse about practice, that is, her practice as text. Evaluative or reflective discourse does not necessarily change future teaching. There is a difference between noticing and recognizing a need to act differently and then actually possessing the skills and authority to act effectively. A co-teacher identified some quality "in" Ben, which was causing unsuccessful practice. Ben may have been constructed and understood through Magda's co-teachers' discourse which "quilted" him in the discourse of personality, that is, 'transferential illusion' (Lacan, 1991) which brings about the 'quilting process' without its being noticed. By this I understood that the co-teachers believed Ben possessed inherent deficiencies rather than being aware of their own highly persuasive and believable symbolic order. Ben was very interested in the ongoing group interest in dreamcatchers. He tried to stay for increasingly longer periods of time to complete his own dreamcatcher. As soon as the Gargoyle book was introduced and transparencies were made available at the overhead

projector and light table he spent longer and longer amounts of time at each. Magda watched and listened to his interest and responded to his emotions. Rather than blame herself or the child she focused on the context and system within which she was trying to learn and teach. She was, in Lacanian terms, quilting her historical reality and thereby giving a sense of identity and structure to her past and present teaching.

Children with attention deficits, impulsivity and other learning difficulties are usually far less likely than their peers to experience finely nuanced scaffolding on challenging tasks of interest. Opportunities for children with ADHD to participate in such discourses are limited by the stress they bring to the adult-child relationship. Because of the aversive behaviours of inattentive and impulsive children, adults often conclude that they are incapable of self-management (Berk, 1995). Previously, Magda admitted, she would not have considered taking Ben on a field trip because of his off-task and changeable behaviour. But in Lacanian terms it seemed Magda transferred his disturbance (that is, increasing length of attention to tracing and interest in entering the peer group discussions) into her symbolic form of teacher discourse. She was able to reflect in order to create a more stable informing discourse which could give a new stable form to praxis. The link between the necessary symbolizing of teaching in a teacher's reflective discourse and the practice of teaching is that each teacher's practice is given a sense of stability through his or her symbolizing order. This means that offering of a new form of symbolizing (a new theory of practice, for example) to a teacher whose practice is grounded in a symbolic order which is unable to accommodate this new symbolic form is likely to be rejected because it does not tie into the way she symbolizes practice (Field Journal, December 2002).

Ben went on the field trip with seven peers. He required minimal extra support to

participate. He spent a long time sitting beside and drawing the lions outside the Vancouver Art Gallery. It appears that Magda chose to value Ben's uniqueness or subjectivity. She seemed to value the relationship between Ben's subjectivity and the intersubjectivity of his peers. During this period, at least, Ben would be more truly described through his relationship with his peers and their interest in gargoyles rather than a particular clinical label. Perhaps Magda considers all differences acceptable? Was she trying to make Ben equal or recognize this unique and equal opportunity of participation and sense of belonging in order to develop his own subjectivity? (Field Journal, December 2002). Magda's relationship with Ben is based on listening which takes place within a "listening context", where one learns to

Listen and narrate, and each individual feels legitimized to represent and offer interpretations of his or her theories through action, emotion, expression and representation using symbols and images. Understanding and awareness are generated through sharing and dialogue (Rinaldi, 2002).

### The Role of the Pedagogista

#### Extending the Community of Learners

Tiziana Filippini, pedagogista, in an interview in *The Hundred Languages of Children* states that

Our task, collaborating with teachers, is to analyse and interpret the rights and needs of each child (and family), and then use this knowledge in our work with the children....The pedagogista must be available to support teachers in their daily relationships...and the steady growth of skills related to progettazione... As we discuss and share reflections, we create culture. We consider what has happened and search for its interpretation; we negotiate to construct a collective understanding (pp. 131, 133).

By encouraging Magda and Kim to include the gargoyle book and a possible field trip, the pedagogista strengthened their personal growth and learning about deepening the children's

investigation through different materials and experiences which had a significant impact on Ben's inclusion into the culture of his peers.

Bruner (1986) states

A culture is as much a forum for negotiating and renegotiating meaning and for explicating action as it is a set of rules or specifications for action....It is the forum aspect of a culture that gives its participants a role in constantly making and remaking the culture – an active role as participants rather than as performing spectators...It follows from this view of culture as a forum that induction into the culture through education, if it is to prepare the young for life as lived, should also partake of the spirit of a forum, of negotiation, of the recreating of meaning (p. 123).

Prior to the field trip the teachers did much research about travel and safety. They also negotiated with the Hotel Vancouver to take the children to the fourteenth floor where they could see and draw the various gargoyles from a different perspective. In this sense, the children were participating in the broader culture. Their competence and thinking were made transparent through their drawings, interest and communication. Importantly, what goes on amongst young children and their teachers was made visible to the broader community.

#### Maplewood Child Care Centre

In mid-December 2002, I interviewed Kim who had been at Maplewood for six weeks. She and her co-teachers had re-arranged their environment to be more aesthetic as well as organize it as a third teacher. For example, recognizing a high need for sensory activities the teachers had changed the environment to offer the children multiple opportunities for exploring and building with a variety of materials, wood blocks, cardboard blocks, connect blocks, large cardboard boxes, natural materials such as stones and twigs as well

as transparent fabric. Different shapes and sizes of transparent objects for construction were available at the Light Table. There was a special table for clay to be available each day and another table to carry out experiences such as shaving cream or slime. The children's thinking about clay had been made visible in several documentations.

*I had forgotten how much they really enjoy...we forgot just how interesting even shaving cream is. I was so caught up in trying to do a project or make products...what I thought I ought to be doing so I forgot even shaving cream as something to experience...Slime was adored a week. They are not ready for representational work yet. I learned with blocks. They built a bridge so I thought, yes, a bridge project! But the next day they wanted to build a castle and have teachers help them figure out how to do it.*

(Kim, December 2002)

#### A Small Group Disturbance

The brief incidence of castle building in December became a very significant disturbance but not until January 2003. During December, five year old Dar, who had often appeared bored on our visits had become increasingly interested in war and weapons. (This period of time was the build up to the Iraq Invasion that may have influenced his interest). Dar Attended Maplewood in the mornings and Kindergarten in the afternoons. He wore army fatigues and continually spoke about weapons. As in most early childhood center there was a rule about no weapons. Two other boys seemed to be attracted to him and be influenced by his interests. Kim attempted to encourage his interest, literacy skills and modeling to younger peers by creating a book about weapons.

*But the more we studied weapons the less interested he seemed in them!*

Perhaps Kim was focusing on the intellectual aspects of a possible topic to the exclusion of the emotional aspects?

### Teacher Provocations

Based on observations of continued block/castle building in which Dar and other children were participating, Kim had a feeling that this was the time to provoke the children's thinking. In a later discussion with me she described that it felt like a leap but it was time for the change. It sounded like deliberative wisdom in action. She had considered and analysed her observations and on reflection she decided to attempt to reconstruct and recode her expert knowledge (Field Notes, December 2002). Kim decided to provoke the children's interest in finding out more about castles.

*The first time we brought in the overhead projector, the teachers and children didn't really know what to do with it...First we did overhead sheets in pictures of castles. We attempted to label and name parts of the castle but we quickly realized that the children were not interested in the parts of castles. Cad, the youngest child at two and a half was quite fascinated in the shadow his own body made...Realizing that the children liked shadows, we decided to put (toy replica) knights on the overhead. Tye decided that he wanted to trace one on a piece of paper. Many of the children found it very challenging to trace them (enlarged on paper on the wall) because their own shadows got in the way. Yla and Tye decided to paint their knights. Thus our project had begun (January, 2003)*

The overhead projector elicited many cognitive and emotional processes for the children, even if not quite those the teachers had anticipated! The youngest child's sensory motor disturbance – testing out his theories about shadows – mediated the figuring out and representational intent of the more experienced children. The meaning of the exposure to the overhead projector emanated both from what the children recognized as leading up to the moment of the activity and what they saw as developing through engagement with the activity. Kim had suggested one aim, that is, finding out about castles but she recognized the children's intentions emanated from the activity (shadowmaking) itself. By remaining

flexible she acknowledged how this social interlocutor could scaffold the children's collective thinking. When children are interested there is increased self-regulation, that is, the ability to think about and reflect on an action, to think where these actions might lead, and then to follow through in the face of obstacles, possible confusion and difficulties. Each of the children intentionally explored and actively created understanding from their points of view about the overhead projector. Kim's sense of it "being the right time" may have been an observational and tacit understanding of what the children understood at one level but what new learning was ready to burst forth. By introducing the overhead projector some level of educational transformation had occurred for the children and teachers. They were negotiating and actively listening to each other. "I am convinced that we shall do better to conceive of growth as an empowering of the individual by multiple means for representing his world, multiple means that often conflict and create the dilemmas that stimulate growth" (Bruner, 1973a, p. 323).

By mid-January, 2003 the pedagoga commented that

The children now seem to be a learning group, collaborating and manipulating stuff to figure out skill levels. They have stopped trying to figure each other out.

The group now consisted of fourteen children. One boy within the autism spectrum disorder, who attended Kindergarten half day, was supported by an extra teacher. Two other boys who had displayed frequent behavioural outbursts and who were both in a diagnostic process seemed to be engaged at some level in the Castle Project. The environment was becoming a third teacher. There were drawings everywhere, many books about castle, a cardboard box castle, new building blocks, an Ikea castle tent and a documentation of children's

shield making displayed on a large piece of cardboard painted to look like a castle wall.

### The Role of the Pedagogista

On our January visit, the pedagogista shared her observations with the teachers that although the children seemed genuinely interested in castles, they did not get really involved with any of the materials for any length of time. She made the following suggestion to create a more interesting and stimulating environment that could act more like a third teacher.

From my observations the aspect of castles that was appealing to them seemed to be the story suggested by the castle. Perhaps they may be interested in writing and illustrating stories about castles, dragons, princesses. Perhaps they could make a book about castles and/or paint a mural of a castle scene perhaps on fabric which could be hung up in the room. Perhaps the fabric could become a curtain for a stage with dressups so they could act out the characters in the stories they were making up about dragons. I think it would be a good idea to have the diagram of the castle and the pictures up on the wall in the block corner to further encourage block building. The challenge is to find what materials will fire their imaginations more and encourage deeper involvement with the materials.

The pedagogista's final interpretive statement offers a kind of literacy of meaning. By this I mean that the pedagogista is intentionally disrupting the old and familiar. Her interpretation is not definitive and final but is one that keeps "open the possibility and responsibility of returning for the very next instance and might demand of us that we understand anew...to unearth the signs of life crackling underneath surfaces (so) that we become more literate and may become less literal, less stuck in the case without a vision of its soul" (Hillman, 1983 quoted in Jardine, 1998, p. 71). By making the familiar – what the teachers had already understood about castles – strange, through viewing from the perspectives

of different materials, the pedagogista was scaffolding transformation. With this provocation, the pedagogista was attempting to significantly disrupt the existing shape of teachers' attunement to the children's learning by asking questions about what materials might fire the children's imaginations more and encourage deeper involvement. The question we must continue to ask ourselves is what are the children looking for? Where can we enter into their irony? (Piazza, 2002). Perhaps the pedagogista was inviting the teachers into a discourse about co-constructing theories with children about what they were looking for?

Maplewood Child Care had been through many teacher and child changes. For the children there may have been losses in the gains of new relationships and/or gains in the losses of old relationships. The culturally external castle as a fortress may protect the relationships of those within. A castle affords different points of view, high on the turrets where one can be brave, and there are never ending views or possible relationships. Down low in the dungeons one must be brave in the face of a potentially dangerous relationship with a lurking dragon. Such points of view about good and not good relationships and the related emotions might be practiced behind 'a curtain' that divides fantasy and reality, ultimately enabling relationships with self and other through any one of the 100 Languages.

### The Role of a Student

On a pre-practicum visit, Simone who began her five week final early childhood practicum in mid-February, 2003 not only observed the diversity of ages as well as interest in castles. She was curious about what was "crackling underneath the surface" and decided to offer the children window markers and mylar paper at the easel as a way to get to know them. The youngest child, at two-and a half-years of age, studied himself for a long time before he

picked up a marker and started to scribble. A four-year-old made a self-portrait by drawing around his mirror image on foil paper. The shiny and reflective qualities of the materials definitely seemed to attract the children. If these qualities interested them, perhaps transparency would too. The following day she set up gold and silver collage materials in trays to sort and rearrange and then, if the children chose, to arrange and glue on transparencies. Simone gathered information about how the children used the material, what kind of things they did with the materials. She was curious about the ways they might use the material that she had brought. She was also curious about what their behaviour showed her of their self-regulation and planning abilities.

She wrote in her journal on day five that she had made friends with all the children.

*Individuality doesn't only describe children's temperament and the way each individual does and learns things but also the way certain strategies, particularly guidance will work or won't. It isn't done by providing age and stage appropriate activities to children. We also have to tailor guiding strategies to each and every one individually. The same way I look at a child's skill level I now look at the best way to help this child solve problems. I don't always get it right but following and observing and always reflecting on what I do sure helps me in finding the finding the best way to support a child.*

### Provocations and Disturbances

Simone had observed Dar, who she described as "a thinker and not very talkative so it's even more important to observe to see where he might be going with his castle building". She decided display a transparency of a castle on the overhead projector and different kinds of construction materials to build up vertically onto the projected shadow. For Dar the provocation led to questions about what would go inside his castle. Tye, after inspecting Dar's castle 'insides', he made a decision to draw a plan and build his own castle. Simone noticed that the

drawings of castles resembled houses, to help children think about the different parts and shapes she photocopied two castles that had lots of towers, turrets and walls. To encourage thinking about towers, turrets and walls she provided sticks of various lengths. While Cha was arranging, representing and gluing her castle she narrated a story about a princess.

Simone scribed the story, took photos of the sequence of building with the sticks and prepared a small documentation later that day for all to see. Close by was a huge piece of cardboard painted to look like a castle wall where photos displaying the children's process and their final product - shields - were documented. Simone described how the children would show their parents which photos they were in and discuss the different stages of shield-making.

Mack had spent forty-five minutes building a castle from the wide range of construction materials available in the block area. Simone photographed his process and designed a documentation panel to be available for the next day. The panel had four photos and a description of his process. The following day Mack noticed the documentation right away and stated that he wanted to build the same castle again, exactly like the one he had built in the photos.

We have to follow the pictures. I need long block first, then smaller ones. Oh no! We made it all wrong. How can we build it like the picture? We can make a little moat. It's a little pond around it. We can make a little crack for the door to get in. I'll make it a bit bigger. We have to make the walls bigger too. This is the door and we shot out from the square here. It's the cannon to shoot the bad guys. It needs to be bigger. It's gonna be huge this one. You know why it's so big? That looks cool. For the people to shoot the bad guys. It shoots all the way over there. The little one does it. What is it called again, ok the catapult shoots there. We need the serpent for that cage. Oh no we don't. It's for the bad guys' castle. We need to make another castle for them. Before the fight they eat chicken bones and bite chicken and drink something. They also have turkeys. Inside the castle is the house for the good guys. Have to make the walls higher so they are safe from the bad guys. We still need to build more inside the little castle. We need the little blocks and really high. I like

This castle is more better than the other one. How can I make the little one? I need to go check on the photo. We can make the moat now. I like stacking them. It's splashing through the waves up and down, up and down. The Water is going everywhere. It's sinking we have to make a wall so it doesn't ever go on people. We still need more Lego. The Lego can do it. I made it all the way there! (Mack, 4 years and 2 months, January 2002).

The documentation provoked Mack to revisit and modify his building to literally scaffold his narrative of protection. In his open-ended choice, Mack demonstrated self-regulation and organization. Self-organization depends on reflective action - going back to review the photo documentation, interaction with Simone in the form of a narrative about his present understanding and transaction of his future building. Reflection, interaction and transaction are key points for Piaget (1968). The central problem of biology and analogously of any epistemology interested in knowledge in terms of its development and not just its verification, is the interaction between the pressure of the environment placed on the individual and the reaction of the individual has on those pressures, in particular, the way the individual both actively seeks to respond to the environment and at the same time resists any pressures to change his/her own patterns.

By day eleven of Simone's practicum, things were crackling on the surface. Dragons had entered the castle discourse. Simone introduced a large Chinese New Year type dragon that she had constructed. New books about castles and dragons and princesses were made available and the 'house' area was changed into a 'throne room' with robes and crowns.. The children had built castles out of ice cubes and made 'parchment' paper with a wax seal.

On day fifteen Simone brought in photos of their three weeks together, laid them out on the light table and asked the children to help her sort them. There was some disagreement over the sequence of activities and learning. She told the children that this was their story. They could tell her the words and she would write them. Simone scribed their words as they revisited their experiences through the photos. She added her teacher's story as well and

organized all the material into a large file. She put the file by the sign in sheet for parents with an invitation for them to look when they either dropped off or picked up their children. in this way she was making her work with the children visible and open for discussion about the materials being used and the way the environment had changed. She wanted to share with parents how the environment as a third teacher had supported the children becoming more literate about their interest.

On day sixteen, a significant disturbance in the shape of children dressing up and playing out scripts of their ideas of life in a castle affirmed Simone's intuition that the children might have had enough of castle construction. She decided to help the children make more props such as ornate goblets and jewelry to support their increased relationship building and collaboration through dramatic play.

Day nineteen and the children were dressing up and dancing. Simone and the teachers affirm their joint observations and intuitions that these disturbances indicate a change is in process. They respond with a significant provocation by changing the environment into a dance studio with mirrors, lights, tutus and ballet slippers and a CD player of ballet music. Simone brought stories of ballet dancing and a video of ballerinas 'warming up'

*It amazed me what a few changes in the environment, a few props and some lights can provoke in children. I could really see the third teacher hard at work (Simone, day 23).*

On day 24 of her practicum Simone videotaped the children dancing, jumping, whirling and twirling.

*The image that we hold of children will open or close possibilities for exploration. In this case it opened it to have them be videotaped and documented in this way.*

Immediately after the videotaping, Simone showed the children the recording. She described video as a great way to document because it is so life-like. In their meeting after seeing the video, the children talked about some significant differences they had cleverly noticed between the professionally made video about ballet that Simone had shown them and 'their dancing video'. They made connection about their environment and that on the professional video, for example, they wanted a piano and pianist not just a CD player, more mirrors, a ballet bar, more tutus and ballet slippers and....the teachers should dress up as ballerinas and show them how to dance!. Moving to the language of dance seemed far away from an investigation of castles!

In April, reflecting on her five weeks at Maplewood in her practicum journal, Simone summarized

*Puppet dragons, paperbag princesses and dressing up a dolly with a paperbag, paperbag puppets and dancing a lot with the large dragon may have been the start of the shift to dancing. I hadn't thought of this before. I thought it just sort of happened by chance. I guess there is always a connection somewhere. I just have to see it!*

Could Simone have entered into the irony of the children by finding materials that fired their imaginations more and encouraged deeper involvement? The large dragon and dressup clothes had provoked pretend play, discussion about who should take on what roles and scripts. Creating a felt puppet dragon, paperbag puppets, crowns and medieval scrolls enabled children to communicate their understanding and express their ideas of long ago. The castle, throne and large dragon did not disappear but the shift in interest to dancing became an addition or another language to express their thinking which was still connected to the castle topic. Had Simone uncovered the deeper meanings that are so important to children, the ones that drive their investigation and cause them to abandon our 'reality' and enter into their imaginative worlds? Had their experiments with materials expanded the fluency of their expression of ideas and

imaginative theories about how the world functions? Did their actions and words indicate that when children and adults 'enter the irony' (Piazza, 2002) together there can be amazing transcendences? Simone had established reciprocity and brought about transparency of the children's ideas through materials, activities and mirrors as well as making the process transparent for parents and children through documentation of various kinds.

The notion of the environment acting as a third teacher gives the classroom the qualities of a living being. As such, it must be as open to change and responsive to the children, parents and community as any good teacher would be. This reciprocal, dynamic environment designed to play the role of a third teacher is a powerful idea. It means that in adopting the Reggio Emilia approach teachers will have to think more critically about what kind of environment they provide for children. They will have to examine each element and think about its purpose. (Fraser, 2000, p. 71)

#### How and Why 'Cracks'?

Malaguzzi's (1993) reminds us about how the badminton games recounted by Wertheimer are able to continue through the reciprocity of skills between adult based on adjustment that allows growth for the child through learning the skills of the child. At some point the ping-pong game breaks down because the reciprocity ceases or takes a breather from either player.

Between days 19-21 Simone described a 'turn' in the children's interest. At this point she (and the other teachers) built on the disturbance of dressing up and dancing. Unsure if this was the direction the children were moving to and if the castle investigation was losing momentum, Simone introduced magnets. She wrote

*negotiated curriculum will be taken over by emergent when the topic isn't the children's first choice of interest any more. Teachers have to work a lot harder coming up with new ways to interest the group and that is naturally*

*more teacher directed.....but as long as it interests them, they will figure out new theories, replace misconceptions with new ideas and look for more information. The tricky part is to keep them interested in a topic for more than a day.*

At North Shore Neighbourhood House the children visited a pumpkin farm at the end of October. Magda and her co-teachers were curious if the children would maintain their interest in gargoyles. At the farm the children had seen a dog bringing a stick and they seemed interested in the different eggs produced by ducks, hens and roosters. The teachers brought in books and photos about farms for the children to refer to when they drew.

The pedagogista wrote

The teachers asked the children what they had seen at The pumpkin patch and they did some amazing pastel drawing of chickens, ducks and the dog. They made houses out of boxes and discovered many possibilities they could do with the boxes. One child drew 3D boxes and made one out of straws. One child tried to figure out how to draw a white duck on white paper (November, 2002).

However, another underlying theme kept re-appearing in the children's play. There seemed to be a lingering 'crack'. Magda recorded how she works with this kind of occurrence.

*I actively play with the children and build on their leads and interests and very often they play a lot of things that are everything and nothing at the same time. But...there can be a repetitive pattern that continues every day and it gets different and more complex and more children are engaged in it and so that's what I look for. For example, the children ran around the climber pretending to be aliens and someone as a spaceship chasing them. About one hour later they were able to transition (that is finish activities, clean up), go the bathroom, get ready to go outside, go outside and go up to the swings and as soon as they start spinning fast enough the child who is pushing starts chasing around saying he is chasing the aliens. So that is what I build on. (December, 2002)*

## Conclusion

In both locations there appear to be transitions or 'cracks' between children being involved in a project which is losing momentum and a new topic of interest to investigate. Perhaps Magda and Simone share a Taoist hyper-reactivity to listening which makes 'entering and exiting the irony' possible? For example, Magda began a 'ping-pong match' about families where for "the game to continue, the skills of the adult and child need appropriate adjustment that allow the growth through learning of the skills of the child" (Wertheimer, 1945, p. 68). As she listened she recognized a disturbance, close temporally to the original provocation, that heralded an investigation into dreams, monsters and gargoyles in which the children could become safely scared. Magda was open to helping children find meaning in what they encountered and what they experienced. Listening to children and supporting their input through the materials she offered them, for example, paint, clay, overhead projector, shadow screen, a world which is not intrinsically ours was transformed into something shared. She listened when the children, in a very assertive mode, changed their shared trajectory.

Simone had remembered that it is very difficult to construct a sense of respect with children because as adults we so often betray children due to our own rhythms. She seemed to intuitively understand that adults must learn to respect the time and rhythm of children, not just content, which can be reflected in careless replies when children are beginning research. A month after the children's initial interest in castle building, Simone was curious about how to maintain castles as the protagonist. When the children saw and heard her interest, both adult and children entered into a relationship of mutuality. Simone listened

and observed the children's interest in certain materials that fired their imaginations more and encouraged deeper involvement. Perhaps their experiments with a wide range of materials in a visibly changing environment expanded the fluency of their expression of ideas and imaginative theories that she scribed.

Simone's experience was different from Magda's in that the Maplewood children seemed to be disturbing the environment to indicate a change in process. In response to the children dressing up and dancing, the teachers' provocation was to change the environment into a dance studio.

For Magda, the children had defined a topic of interest, explored it and were clearly indicating their changed interest through direct conversation as well as through their play. Although the processes appear different in each location there seems to be an underlying similarity. There seems to be some amount of time, excess time, even possibly a waste of time where an unpredictable transformation of learning might be taking place (Bruner, 1973).

In Chapter V, I explore how listening through documentation meant making possibilities of changes in tempo in the construction of views about relationships with each other, materials and the environment transparent. Teachers were able to give value to every contribution and not immediately judge. They constructed the group awareness of what was happening. Through documentation, their own identities as teachers were made visible, judgeable and open for encounter across time.

## Chapter V Another Surface of the Crystal: Pedagogic Documentation and Change

The title of this chapter is borrowed from Janesick's (1998) suggestion that crystallization is an alternative to triangulation in qualitative research design. My intention is to temporarily borrow the metaphor of crystallization for pedagogic documentation. The crystal combines symmetry and substance with an infinite variety of shapes, substances, transmutations, multidimensionalities and angles of approach. Janesick describes crystals growing, changing and altering. They are not amorphous. The idea of crystallization can provide us with a deepened, complex, thoroughly partial understanding of a topic.

The idea and practice of observation and documentation of a universal and objective social reality as a source of evidence has a long history. However, teachers in Reggio Emilia view documentation as a process of co-construction embedded in concrete and local situations.

This shift provides a structure for

theories to practices, from theorizing to the provision of practical, instructive accounts. The shift from the third person observation to second person 'making sense'....We become interested in the procedures and devices we use in socially constructing the subject matter... We thus move away from the individual, third person, external, contemplative observer stance, the investigator who collects fragmented data from a position of socially 'outside' of the activity observed (Shotter, 1992, p. 59, 60).

In this chapter I revisit how certain episodes contributed to teachers' beliefs and pedagogical practices through the multi-dimensionalities of pedagogic documentation.

For example, Pence (1999) notes that pedagogic documentation can be seen:

- as a means for constructing an ethical relationship with ourselves, others and the world
- as central in the discourse of making meaning of what is going on
- as a socially constructed process of visualization
- as a tool for reflecting on pedagogical practice

- as supporting teachers' reflexivity
- as process and content
- as a learning process for teachers and children
- as a challenge to transmission
- as opening up possibilities of encounters in the wider community
- as an "offer (to) children and adults alike of real moments of democracy. Democracy which has got its origin in the recognition and the visualization of difference brought about by dialogue. This is a matter of values and ethics" (Rinaldi, 1994, quoted in Pence et al., 1999).

In the rest of the chapter, after exploring what pedagogic documentation is and if it is ethical, I lay out illustrations of how documentation served the above points.

To illustrate documentation as a means for constructing ethical relationships and as central in the discourse of making meaning of what is going on, I revisit an episode in which a four year old child, Mack, and a teacher, Simone tarry at a documentation on his use of a particular material. From Chapter 3, Sheeba's 'before and after documentation' of the art area serves as a reiteration of making meaning of what is going on. As a socially constructed process of visualization that supported self-reflexivity and challenged transmission as well as contributed to the environment as the third teacher, I use the pedagogista's suggestion of photodocumenting the children's experiences in the art area. I revisit the Gargoyle Project in general as a means of recognizing the power of materials as languages and as a learning process for teachers' and children's individual and group change. As an example of a learning process for teachers and children I revisit the construction of the photohistory of common experiences - 'telling a story about ourselves' which was capable of developing from within itself methods which will secure direction for itself and will create inherent standards of judgment and value' (Dewey, 1925/1958, p. 38). I interpret the role of the scribe (Simone, the teacher) and that being in a group, for children, is a situation of great privilege (Malaguzzi, 1993). The example of the photohistory construction also offered possibilities of opening

up encounters in the wider community, that is, with parents as well as the regeneration of children's thinking. Finally, I explore how the Gargoyle documentation (and transparencies) offered children and adults alike real moments of democracy 'which has got its origin in the recognition and the visualization of difference (and appearance) brought about by dialogue. This is a matter of values and ethics' (Rinaldi, 1994).

### What is Pedagogic Documentation?

In Chapter 4, four-year-old Mack returned to look at a sequence of photos that Simone had composed as a visual narrative of his castle construction. From a phenomenological perspective, photos as secondary artifacts express the experiential, as well as artistic and emotional interpretation of the photographer. This phenomenological mode borrows from early photographic art movements as photographers sought to define themselves as more than technicians and to assert that photographic expression is equivalent to artistic expression in other media. To photograph an experience is to look as we are doing. Each photographer chooses his/her points of view that illuminate different aspects of the unfolding social reality. For example, with the new tool of photography Eadweard Muybridge's Animal Location Study funded by the University of Pennsylvania in the late 19<sup>th</sup> century, was a research tool intended to enhance public understanding of human and animal motion. As an artistic response to the machine and its growing cultural presence, Muybridge's photographic interpretation represents the human body as one that is defined by movement-consistent, repeatable machinic-like action. However, the sentiments behind the image making can be gathered and understood through other modes of expression including written and spoken language.

Pedagogic photographic documentation refers to two related subjects: a process - how a teacher goes about gathering content - and the important content gathered in that process

(Pence et al., 1999, p. 147)). The content of documentation - notes, video/audio recordings, still photos, computer graphics, children's work - records what children are saying and doing and how the teacher relates to the children and their work. The process involves not only the gathering but the use of that material to reflect on the work with children by a teacher alone, with other teachers, the children themselves and parents. Pedagogic documentation is constructed from a social perspective from which understanding of learning is co-constructed.

### Is Pedagogic Documentation Ethical?

Taking pictures becomes a substitute for seeing. Of course, you have to look in order to direct your lens to the desired object. But looking is not seeing. Seeing is a human function, one of the greatest gifts with which man is endowed; it requires activity, inner openness, interests, patience, concentration. Today a snapshot means essentially to transform the act of seeing into an object. (Bauman, 1995, pp. 132-4)

What right do we have to take photos, interpret and document children's actions? How do we make sure that we do not separate relationships from their moral significance? For Reeder (1997) we as teachers enter processes such as pedagogical documentation as participatory subjects, as the ethical subject of the act, and therefore we must take responsibility for every act of observing and for our choices. The art of listening and seeing the other and taking them seriously is about the ethics of an encounter.

### Documentation as a Means for Constructing an Ethical relationship

When Mack, with Simone, revisited his initial experience of castle-building through a pedagogic documentation, it provided a location to "tarry" (Gadamer, 1986) and consider the past in the present with a view to the future. Essential to taking responsibility for her acts of observing and participating (through photos) and trusting in her own reflexivity as well as Mack's unfinished ideas and thinking, this encounter presented Simone and Mack

with an opportunity to dialogue. It takes time to see and listen to another and make meaning from practice. Time to recognize that there may be many meanings or understandings rather than reducing what is going on to fit preconceived criteria.

Gadamer's (1986) notion of tarrying denotes either a conversation with oneself, with the thing at hand and with others about whatever is at stake - even non-linguistic art work, as in painting, sculpture, music or photos. In Truth and Method he states

All understanding is interpretation, and all interpretation takes place in the medium of a language which would allow the object to come into words and yet at the same time the interpreter's own language. When we try to understand something we join a conversation and enter into dialogue. This requires not "hearing from" another but "listening to" another where we inevitably find ourselves in the middle of things with a past and a future. (p. 389)

For Gadamer, whatever we do or want, the happening of understanding is always already taking place in our linguistic encounters with the world. Through dialogue, we seek to understand difference, and achieve self knowledge through expansion and deepening of our own finite horizon and historicity. In such encounters, we seek a fusion of horizons, a reconciliation and coherence through dialogue which is always open to further experience. However, if our attempts to understand ourselves, and to consider how we ought to act, are on constantly shifting understandings of our own ongoing history, how is it possible to transcend that history and be ethical in that encounter?

Bauman (1993) argues that we bear responsibility for making moral choices for which there are no guidelines that offer unambiguously good solutions. He states that "personal responsibility is morality's last hold and hope" (p. 34). According to his view we bear moral responsibilities, whether we choose to or not, and confront the world as a moral problem and our life choices as moral dilemmas; "taking responsibility for one's own

responsibility is the meaning of being moral" (1993, p.56). For Bauman "to take a moral stance means to assume responsibility for the other" (p.1) which does not mean treating the other as the same as us but rather recognizing our obligation to that other as unique, without expectation of recompense. This ethical perspective foregrounds uncertainty. This means we can never be satisfied that we have made a good choice, since a decision in favour of one alternative is always to the detriment of another.

When Simone made Mack's original thinking about castle-building visible and open for discussion through documentation, Simone had made an explicitly ethical choice and judgment of value in relation to his ongoing interest. Intuitively understanding that pedagogy is a "di-symmetrical and endless" relation with the parties caught in a "dialogic web of obligations", her documentation provided a process as well as content to listen to and to think beside each other and ourselves to explore an open network of obligation that keeps the question of meaning open as a locus of debate.

.....Doing justice to thought means trying to hear that which cannot be said but which tries to make itself heard - and this is a process incompatible with the production of stable and exchangeable knowledge (Readings, 1996 p. 165)

#### Documentation as Central in the Discourse of Meaning-making

Through documentation of the changing art area, Sheeba and her co-teachers made visible their processes of ethical choices and judgments of value in relation to what they wanted for the children here and now with a view to the future. When Sheeba returned to Maplewood after the Conference she dialogued with her co-teachers about what she had learned. Together they decided on changes to their environment "in order to remain up to date and responsive to (the children's) needs to be protagonists in constructing their knowledge" (Malaguzzi, 1993, p. 177).

In Chapter 3, I wrote "it is just these subjective meanings which form the heart of personal experience and in the process of transformation give us an experiential epistemology ....that emphasizes knowledge creation, not discovery and negotiation not verification." Through listening and thinking beside each other (and the children) they had become aware that the existing art area was not creating an invitation to children to be protagonists in constructing their relationships with materials. By making their thinking visible to parents through photos of 'before and after' changes, the teachers were attempting to create a space for all to be engaged in dialogue about the ongoing process of research into children's construction of knowledge in their changing environment (as the third teacher).

#### Documentation as a Socially Constructed Process of Visualisation

Pedagogic documentation can help us by "telling ourselves a story about ourselves" (Steier, 1991, p. 3), through visualization of our own thinking and practice. For example, as Mack reviewed the photos of the castle building documentation he "became even more curious, interested and confident as (he) contemplate(d) the meaning of what (he had) achieved" (Malaguzzi, 1993, p. 70). In his "building narrative" Mack exhibited self-organization based on reflective action, interaction with Simone and transaction of his 'new' building action narrative. For example,

We have to follow the picture.....Oh no. We made it all wrong.  
How can we build it like the picture?.....I like this castle more  
better than the other one. How can I make the little one? I need  
to go check on the photo.....we still need more lego.. The lego  
can do it.

As Simone scribed his narrative, she tried to listen to Mack's hypotheses and theories as well as his fantasies as a means of focusing, in a more systematic way, on his strategies of learning

and meaning-making.

For Sheeba, the pedagoga's suggestion of photo-documenting the children's experiences in the new art area strengthened her 'disposition' (Katz, 1985). Visualization of each child's specific zone of proximal development through secondary artifacts slowed down her gaze, challenged the idea that knowledge is transmitted and contributed to more understanding about the construction of the environment as a third teacher.

### Documentation as a Learning Process for Teachers and Children

For Magda, documentation of various kinds made visible each child's 'capture' (Piazza, 2002) into the ideas of the Gargoyle Project. Listening and seeing, a landscape of families was transformed into dreams of monsters. Listening and seeing afforded decisions about how and what materials could scaffold dreams, monsters and gargoyles as the protagonists while respecting the time and rhythm of the children, not just the content they were researching.

In early October the pedagoga wrote

In the hallway outside the classroom, there was a beautiful documentation of photographs, of children's drawings and conversations about the field trip to visit the Hotel Vancouver and the gargoyles. In the classroom there were drawings, tracings and paintings of the Gargoyles, transparencies of gargoyles projected on the the wall and the children had begun to use clay to sculpt their own gargoyles. They had added a large mirror to one wall in the block corner.

### Materials

Materials provide unique ways of expression and communication for everything that children carry inside themselves, their thoughts, knowledge, creativity, emotions, dreams, fantasies, wondering and ideas. In Art as Experience, Dewey (1934) concludes that

Because objects of art are expressive, they are a language. Rather they are many languages. For each art has its own medium and that medium is especially fitted for one kind of communication. Each medium says something that cannot be uttered as well or completely in another tongue. The needs of daily life have given superior practical importance to one mode of communication, that of speech. This fact has unfortunately given rise to the popular impression that the meanings expressed in architecture, sculpture, painting and music can be translated into words with little if any loss. In fact, each art speaks an idiom that conveys what cannot be said in another language and yet remains the same. (p. 106).

But Magda moved beyond simply providing children with experiences. As the children touched, tasted, examined or explored the texture of interesting objects (Fraser, 2000), they tarried and she listened closely to their conversations to uncover their beliefs about the topic being investigated. She probed further by asking questions or by engaging them in discussion to discover why there were so deeply absorbed in the exploration of and representation with certain materials. "The teacher's analysis (and discussion of various documentations - written notes, photos, drawings) reveal the (possible) reasons behind the children's interests, the source of their current knowledge, and the level of articulation about its detail" (Forman & Fyfe, 1998, p. 240). Through this process, "knowledge is gradually constructed by people becoming each other's student, by taking a reflective stance toward each other's constructs and by honouring the power of each other's initial perspective negotiating a better understanding of the subject matter" (Forman & Fyfe, p. 239). For example, after the field trip to see the gargoyles the children decided they wanted to build a hotel for their gargoyles. Magda set a provocation in the block area where she had placed a large mirror. She built a simple tower of blocks and added a paper gargoyle to one side of her building - the side facing the mirror. Magda knew that the children would likely imitate her. Because she knew they all had the skill of simple block building she already had in mind

the next step - to take away the blocks and offer other materials to build. She acknowledged that the children wanted to make tall buildings but she wanted them to make that connection with more and different materials. The idea of placing the blocks in front of the mirror was to increase the children's sense of three dimensionality. One child tried to draw his building unsuccessfully then cleverly used plastic building straws to make a three dimensional cube which he could graphically represent. Immediately, Magda made that child's thinking visible to the group through prominent display of an enlarged photocopy.

*I want them, encourage them on the path to see if that's what they want to do so I want to be ready so they can do it, that there's nothing new to it but they are doing it in a different way so I set them up for success. (Magda, October 2002)*

Her provocation seems to follow Malaguzzi's (1993) statement that

.... it is that in many situations, especially when one sets up challenges, children show us they know how to walk along the path to understanding. Once children are helped to discover the pleasure of inquiry, their motivation and interest explode. They come to expect discrepancies and surprises. Their environment must be set up so as to interface the cognitive realm with the realms of relationship and affectivity, so also there should be connection between development and learning, and between individual and interpersonal autonomies. Value should be placed upon contexts, communicative processes and the construction of a wide network of reciprocal exchanges among children and between adults and children. (pp. 67-68)

### Documentation as Opening up Possibilities of Encounters in the Wider Community

#### Creating a Photohistory

On day fifteen of her practicum, Simone brought photos of her three weeks with the children. She provocatively laid the photos out on the light table and asked the children to help her sort them. She told them they could make a story with the photos. She scribed their words. Considerable disagreement ensued about the sequence of events as well as

some differences interpreted in the content. This process involved the use of the material (content) as a means to reflect upon children and adult's past and present experiences in terms both of themselves and of future possibilities. In How We Think, Dewey (1933.1971) states that in the course of reflection "partial conclusions emerge...(These products) are temporary stopping places, landings of past thought that are also stations of departure for subsequent thought" (p. 75) But these possibilities only emerge if the process of reflection is critical, public and communal. Dewey believed that "experiences could be openly analyzed and transformed; not in a competitive environment...but one where, through mutual co-operation, children and teachers explore alternatives, consequences, and assumptions. Ideas are put forward for the purpose of exploration, to be part of the recursive process". (p. 75)

### Scribing

Jardine (2002, p. 8) describes the scribe as a portal full of readiness, relatedness, love and expectation. He/she effaces a gap between children's lifeworlds and the undeniable presence of the imaginal worlds they inhabit when given the opportunity. This act requires a certain embodied discipline, attention and faithfulness on the part of the scribe and trust on the part of the speaker (child). Jardine quotes Plato in Phaedrus that (scribing) "is not a recipe for memory, but for reminding that you have discovered" (p. 275).

This is a knight and I take him home to protect me.

This part needs more water to stick on the other.  
I want a really tall castle. I need more clay.

It's the wall around, these are the stairs to get up  
The tower. In the middle is where they all live.  
The drawbridge is up.

This wall needs to go higher or the bad guys  
Can come in. Where can we put this door?

It's called a drawbridge.  
On top of the roof is a canon.  
The knights use it in battle.  
They only shoot bad guys.

The servants actually eat in the castle too.  
A dragon lives in a dungeon.

I'm a scary knight. Want to play with me?

I'm the king now and you have to do what I say!

I'm the good guys but also the bad guys!

I'm getting the catapult out.

I'm gonna build a castle for the princess  
The king and the queen can come too but not  
The dragon. He has to go to the dungeon.

Using the word writing rather than scribing, Gadamer (1986) notes that writing is an attempt to "make memory last" (p. 391) but the memory that lasts is embodied, not in the body that has written in its own hand, but in the text that has shed the body of the writer in favour of the body of the work itself, in favour of what is said and what such writing says to those who read it.

Simone's scribing could be considered an example of a teacher being able to capture the delicate moments in which a child or children are ready to take a step toward learning:

Malaguzzi (1993) states:

We seek a situation in which the child is about to see what the adult already knows. The gap is small between what each one sees, the task of closing it appears feasible and the child's skills and disposition create an expectation and readiness to make the jump. In such a situation, the adult can and must loan to the children his judgment and knowledge. But it is a loan with a condition, namely that the child will repay. (p. 84)

As Simone scribed there was little or no dissent amongst the children related to the visual content of the photos. There was, however, considerable difficulty in listening which led to

dissension as the group revisited and attempted to sequence events and materials.

Malaguzzi (1883) suggests that to be in a group is a situation of great privilege.

The children realize that the world is multiple and that other children can be discovered through a negotiation of ideas. Instead of interaction only through feelings and a sense of friendship, they discover how satisfying it is to exchange ideas and thereby transform their environment.

.....Many of them learn the relativity of their own point of view and how to represent their ideas in a delicate way. They say, "I think, " or "In my view" or "I do not know if my ideas are right for everybody".....All of this helps explain why it is so important to record and transcribe the conversations of children...to become more sensitive to the layers of meaning. (pp. 94-95)

Bickford (1996) defines communicative interaction as depending not on the possibility of consensus but on the presence of listening. This kind of listening attention to one another - not primarily a caring or amicable practice - enables the participants to decide democratically how to act in the face of conflict and to clarify the nature of the conflict at hand (and together what course of action makes sense is decided). This kind of communicative engagement takes conflict and difference seriously and yet allows for joint action, (that is, listening and speaking as the central and distinctive activity). Highlighting listening confronts the intersubjective character of the group pointing to both separateness and relatedness. Separateness or difference may be the source of conflict but listening foregrounds the possibility of bridging the gap by devising a means of relatedness.

According to Malaguzzi (1993, p.p 94-95) perspectival phrases such as "I think" or "in my view" are not simply just a good idea according to either implicit or explicit criteria and therefore recommended for practice in the classroom, but summon up "understanding (which begins when something addresses us" (Gadamer, 1986, p. 299). To interpret means to attempt to respond to this summons, this address, to find out what it is asking of us, to find out how

it defines us "beyond our wanting and doing" (Gadamer, 1989, xxviii). This kind of listening is a willingness to construct certain relations of attention to form an auditory gestalt. It makes listening and not simply speaking a matter of agency. Opinion requires the presence of others. "No-one is capable of forming his own opinion without the benefit of a multitude of opinions held by others (for) opinions are formed and tested in a process of exchange of opinion against opinion (Arendt, 1965, p. 225).

#### Documentation as Offering "Real moments of Democracy"

Pedagogic documentation offers an important role in constructing encounters characterized by more tentative and exploratory modes of seeing, listening and challenging. In early November 2002, after Halloween, Magda showed the children a set of transparencies that documented the Gargoyle Project beyond the original large documentation with which they were familiar.

*We looked at all of the pictures and we talked about what we've learned.  
It was a great way for the children to reflect upon their learning.*

The children declared unanimously

We have finished with the gargoyles! We are finished!

Documentation is an important starting point for dialogue, but also for creating trust and legitimacy in relation to the wider community by opening up and making visible the work of children and teachers.

In 1996, I wrote the following script for the video called Where We Belong.

All children come with differences and in early childhood centres we create environments where each child can feel a sense of belonging. It is while being together (participating) that children are able to best learn and grow. The way we care for children plants the seed for how they will be as adults. It will determine whether community will be strong enough to embrace diversity.

This video, the fourth in a series called Making Friends, articulates processes for enabling the participation of all children in early childhood programs regardless of disability. With increased participation the focus of attention is on how an evolving, continuously renewed set of relations occur within the social environment. Through regard for a child's interests, the environment can offer itself for relating. By this I mean that sometimes a child might only peripherally participate in the simplest way with materials or people in the environment. On other occasions that same child might participate at a very intense level in an activity or with a peer of interest; for example, Ben and his tracings at the light table.

The concept of community underlying the notion of participation and knowing in the lived-in world is both crucial and subtle. A community of practice is a set of relations among persons and activities in a context over time and in relation with other tangential and overlapping processes. A community of practice is an intrinsic condition for the existence of knowing, not least because it provides the interpretive support necessary for making sense of its heritage (Lave & Wenger, 1990). In an interview with Magda in December 2002 she described the following in response to my question about her level of scaffolding:

*For me, I really like to bring the whole group together and being an "Eagle" (the name of the classroom group) is really something special that the children recognize in the centre. Being in the older group, so many things happen in this room. When the three year olds visit, mostly they don't have the skills of four year olds and don't quite understand the process we are doing in this room so once they know that part they can follow the Eagles' lead. Children who are almost four can't wait to be an Eagle. We had a child with disabilities who toilet trained in a week when he understood he was coming into the four year old room.*

Within this framework, mediated by different perspectives, learning is located in the

increased access of learners to participating in roles with more "expert" performers.

Newcomers may engage in several roles simultaneously - subordinate, responsible agent in minor part of a performance, aspiring expert (Lave & Wenger, 1990, p. 23) - each implying a different sort of responsibility until they themselves become old-timers - long term Eagles. Social practice is the primary generative phenomenon with learning as one of its characteristics. Learning involves the whole person or child. It implies not only a relation to specific activities but a relation to a social community. It implies becoming a full participant, a member. Activities, tasks and understandings do not exist in isolation but are part of the broader system of relations in which they have meaning. The person or child is defined by as well as defines these relations. Learning implies becoming a different person with respect to the possibilities enabled by these systems of relations - the construction of identity is involved.

#### Documentation as an Offer to Dialogue - "A Matter of Values and Ethics"

Implicit in Arendt's (1958) account of identity, with its stress on appearance, is the need for a particular kind of attention on the part of others as we participate.

Our identity relies in a sense on others who see us as we cannot see ourselves. The fact that we cannot control how others see us act and hear us speak confirms that listening itself is active and unpredictable, part of the response that is always also a new action. (p. 231)

Documentation of the children's work provoked the participation of a parent in offering to make dream catchers with them. From an Arendtian perspective, the active presence of the children and teachers was central to the parent's initiations, that is, her ability to appear in the world. Arendt (1958) describes our distinctiveness as creating the need for our own voice to

sound through. For her, who we are - our plurality - is unique and is only revealed in public speech and action as part of each unique life story. Plurality is the basic condition of both action and speech. Its two characteristics are distinctiveness and equality. Equality - something that helps us to understand each other, the meaning of our past and the needs of our future - is manifest in the public realm of peers, where we are neither ruling nor being ruled, but engaging with one another is joint speech and action. It equalizes us creating a space where we are listening and can be listened to.

Arendt (1958) defines the 'who' in an action - our natality - rather than the 'what'. The 'whats' are socio-cultural means of interpretation and communication according to Nancy Fraser (1992), which include various idioms, vocabularies and narrative conventions, for example, listening and watching attentively to learn specific skills through imitation about making dreamcatchers.

Malaguzzi (1993) believes

there is no possibility of existing without relationship. Relationship is a necessity of life. From birth, children are in continuous relationships. They have this need, this desire, to master interaction; to be protagonist one time, to be listener another time. And then to be protagonist again. For children, dialogue opens this game of playing different parts. Children have the great fortune to know how to pull thoughts and meanings from one another's voices. They can speak in images that are close but also images that are remote. To adults, these images may appear out of focus, but they are always close to the sensitivity of children. (p. 287)

### Conclusion

In this chapter, I have interpreted the pedagogic documentation collected in this study from many angles of approach. The fundamental relationship between subjectivity and

intersubjectivity underscores all the angles not only at a cognitive and psychological level but on a political and cultural level. The organization of the early childhood context as a polity, as a locus for citizenship....by defining them as public spaces that seek to recapture the idea of the critical democracy and community" (Giroux, 1989, p. 201)

challenges the idea of the neutrality of education. Rinaldi (2002) states

To have the courage of choosing, the courage of listening, the courage of our difference means also to have the courage to remember that what we choose as a value is not the absolute truth. It is something that we believe we want to share with others and we need others. Values cannot be something that separates us but something that can help us stay together (p.????)

If we want parents to be aware of children's meaning making in educational settings and we value the participation of parents, we must make the context and life of the children and teachers visible when parents are not there so they can re-contribute.

Documentation, representing literacy in its broadest sense, provoked the participation of a parent to share learning from her community of practice. What matters about learning and the nature of knowledge and knowing according to Wenger (1998), is that we are social beings and knowledge is a matter of competence with respect to valued enterprises, for example, making dreamcatchers. Knowing is a matter of active engagement in the world and our ability to experience the world. Our engagement with it is ultimately with what learning is concerned. The primary focus is on the encompassing process of being active participants in the practices of social communities and the construction of identities in relation to these communities. Such participation shapes not only what we do but also who we are and how we interpret what we do.

For the teachers and children, listening to each other through documentation meant

offering different views about relationships with each other and the environment.

Teachers were able to give value to every contribution and not immediately judge, for example, Mack's castle building and the children's experiences in the 'new art area'. The teachers constructed group awareness of what was happening. Through documentation, their identities as teachers were made visible.

Magda described how the process of a changing environment for children to discover and use to uncover their curiosities provoked her co-teachers into social participation as a community of learners. The belief that children had something to say that was worth being listened to was a change in image and relationships especially for children with special rights. The reciprocity between changed practices in how the environment was constructed to provoke children's thinking was made transparent in documentation. For example, both Magda and Simone identify establishing reciprocity with the environment as well as their own changing role within it. Magda described how she actively plays with children, observes and documents their leads and builds on their interests as the beginning of co-constructing an environment that responds and extends their understanding. Simone gained insights into what the children were believing and thinking when she actively played with children or actively observed and documented their behaviour. As she re-visited the various documentations, she described how she had thought that the shift from castles, princesses and dragons had "just happened by chance.....I hadn't thought of this before but I guess there is always a connection somewhere. I just have to see it!"

As teachers observed, interacted with and documented children's play, they became

more literate yet less literal about the deeper meanings or theories that were so important to each group of children. Listening to children's thoughts and feelings and making those visible in documentation provided the content for teachers to engage in reflection, interpretation and dialogue. Through these processes they were able to co-construct physical, temporal, spatial and social-affective environments that supported reciprocity.

Pedagogic documentation provided a process through which new professional knowledge became part of and shaped the teachers' personal practice. This was a significant finding to one of the key questions of my study. In Chapter 6, I synthesize the significant findings from my study.

## CHAPTER VI

The final chapter of my study contains a synthesis of the significant findings. These findings are grouped into three sections. In the section headed Purpose of My Study, I retrace why and how the study began, specific questions I posed, and explain certain terms from the Reggio Emilia Approach. In the second section, I re-examine the theoretical basis that informs my interpretations of those findings. Finally, I explore concepts where I extend or deepen understanding and suggest implications for further research.

### Purpose of My Study

The idea of a study began when three volunteer teachers, a pedagoga and I shared our mutual interest in change. We had attended meetings at our local Reggio Emilia Network. Each of us had different points of entry for our insights into teachers' changing beliefs and practices. We were all particularly interested in the Reggio Emilia Approach. A key principle of this approach is the co-construction of an environment that can act reciprocally as a third teacher. That is, teachers see themselves as researchers of children's curiosities and offer materials in time, space and relationship that will further provoke their investigations.

Teacher as researcher implies an image of children who have important ideas and theories to be listened to and made transparent to parents and community in pedagogic documentation.

The pedagoga, in her book *Authentic Childhood: Reggio Emilia in the Classroom* ((2000), had studied the practices of teachers in rural and middle class contexts who were interested in changing their practices to more closely follow the principles of the Reggio Approach. I was particularly interested in certain questions.

- Would the principles of the Reggio Emilia Approach be of interest to teachers who were working in less affluent and more ethnically diverse communities?
- What were the processes by which new professional knowledge became part of teachers' personal practice? Would tacit knowledge be unearthed?
- What kinds of language did the teachers use with each other and children?
- What support would the pedagoga offer as the teachers entered into interpreting the principles of the Reggio Emilia Approach?
- How would that support shape understanding of their practices?
- How did the teachers use time?
- What materials were offered to children?

Prior to the commencement of the Study, we all attended an early childhood conference about materials in an environment considered as a third teacher. These particular principles of the Reggio Emilia Approach seemed to offer significant professional ideas to the teachers. They even began talking about their plans during the conference sessions.

As the study progressed, I watched, listened, questioned and formulated questions as a curious researcher. I had to constantly remind myself, that in order to maintain an analytic perspective, I must suspend my taken-for-granted assumptions about my relationships with the participants. By reading the teachers' journals and reflexive interviewing, I was able to gather meaning from their perspectives and forms of discourse. My original questions provoked significant content themes. I grouped this content under the key ideas of the Reggio Approach that were relevant to my study. From these themes I constructed Chapter III which focuses on teachers' beliefs and practices about the environment. I include the role of the Pedagoga in this Chapter.

In Chapter IV, I cluster the interactions of the teachers and children as they began to

explore their ideas through materials and how those processes changed their beliefs.

Chapter V is an analysis of how pedagogic documentation contributed to changes in teachers' beliefs and pedagogical practices.

- Would the Reggio Emilia principles be of interest to teachers who were working in less affluent and more ethnically diverse communities?
- What were the processes by which new professional knowledge became part of teachers' personal practice? Would tacit knowledge be unearthed?

The teachers were very enthusiastic about beginning to incorporate ideas from the conference into their practice. They had read the pedagoga's book Authentic Childhood: Reggio Emilia in the Classroom (2000) in which she documents implementing the Reggio Emilia approach in British Columbia with pre-service students, teachers in a rural setting and teachers in a university campus preschool. These locations were very different socio-economically and in relation to the number of children with special rights who attended. The marked differences that I observed, however, resided in individual teacher interpretations of changing relationships with and through the environment as a third teacher. One teacher, Sheeba, appeared to experience doubt about her practices in her work environment in a fundamental way. To uncover her doubt, she collected evidence to make her thinking visible to her co-teachers and parents through pedagogic documentation. Through dialogue and conversation Sheeba led an examination of some taken-for-granted assumptions about the role of the environment. As she carried out this process, her image of herself changed. She

became more of a researcher than transmitter of information. She was interested in how the environment could support reciprocity with children's learning. This way of thinking implied she had an image of children who were capable of showing her their interests and developing theories. Sheeba drew on and conveyed her professionalism and the hidden (or tacit) dimensions of her practical wisdom (Sternberg, 1999) through the environment she was trying to create and the interactions with which she was engaged. She paid great attention to her beliefs and her intentions.

Kim's point of entry for change, was organizational, knowledge and skills oriented. She sought possible ways to build reciprocity with the environment. For example, when could all the staff meet, how was the physical space used, how the daily schedule worked to support programming.

Magda identified several key interlocking principles of the Reggio Emilia Approach. She implicitly identified her own image of herself as a teacher, the relatedness or reciprocity of her goals for the children and the construction of the environment as the third teacher. She appreciated other staff may have different points of entry for learning and collaborating. Perhaps her experience working as a member of a trans-disciplinary team with other professionals, in support of the participation of children with special rights, had influenced her approach.

Both Magda and Sheeba seemed to make connection with their prior knowledge after attending the conference. Magda's statement about her goals and Sheeba's actions embody a way of knowing that involves expert knowledge (including personal/professional, theoretical and practical knowledge) and sound judgment (Sternberg, 1990). Their professional artistry

(the hidden or invisible aspects of practice) had been enhanced. Hidden dimensions of practice indicative of practical wisdom are more difficult to articulate than are knowledge content areas and skills required by early childhood teachers

- What kinds of language the teachers used with each other and children?
- How did the teachers use time?
- What materials were offered children?

Magda described how listening to children makes it possible to recognize their specific competencies to build a community of learners which includes herself. Listening enables her to discover the possible, specific qualities of the various contributions that children (other teachers and parents) can make. She seems to have discovered the quality and generative richness of exchange and dialogue from different points of view. She exhibits an intense auditory perception, careful not to impose her own preconceptions (or others) on children, as for example, with Ben. She is always ready to see them as who they are in themselves. She exhibited a similar sensitivity as she listened to the co-teachers concerns about the content and pace of the gargoyles investigation. She listened to the invitation from a parent to participate in building dreamcatchers.

Simone demonstrated a similar sensitivity to listening and talking with her children. This kind of listening enabled both Simone and Magda to enter into the irony with their children and yet recognize a 'crack' or change in trajectory of the children's interest. It is very difficult to construct a sense of respect with children if adults do not see and hear the rhythm of the children's conversations but merely the content. Simone's curiosity in maintaining

castles as protagonists, by offering certain materials that fired the children's imaginations more, expanded the fluency of their theories for her to scribe. When the children saw and heard her interest both adult and children had entered into a relationship of mutuality.

- What support would the pedagogista offer as the teachers entered into interpreting the principles of the Reggio Emilia Approach?
- How would that support shape their understanding of their practices?

The pedagogista came to the Study with her own inscriptions but she was most careful to behave in a consistent manner as part of each setting. Any significant changes were initiated and co-constructed with the teachers. She was always flexible, listened and moved slowly. She sometimes expressed concern at our lack of time to dialogue, aware that to build trust in a relationship cannot be rushed. She was credible and accepted by the teachers as she supported their observations and their growing ability to reflect and listen to children as they expressed their theories. The pedagogista already had experience in supporting other teachers who were deconstructing their practice and trying to reconstruct. She was sensitive to the commitment of the teachers in this Study to change and encouraged openness to change. She was always willing to discuss opposing points of view, always promoting each teacher's autonomy rather than taking over a problem and solving it. She established us as a community of learners and supported the teachers in seeing that practices are not fixed entities but can be renegotiated. For example, the pedagogista supported an exploration of the elements of yellow. She drew attention to the possibilities of the children being involved in more abstract behaviours as well as the

aesthetic aspects of learning. She encouraged the use of photographs as a rich resource for understanding children's learning and our own as teachers. By slowing down activity, pedagogic documentation provide a static and visible moment for analysis and reflection of the social construction of our gaze. We begin to see ourselves, and the roles we have chosen recorded in the choices we have made. By becoming a co-learner with the teachers through documenting the work of the children, the pedagogista invited the teachers to engage in "progettazione", a dynamic process from Reggio Emilia based on communication. It implies a system where collegiality and collaboration support relationships between children, teachers and parents and between the early childhood setting and the community. By encouraging the teachers to document, the pedagogista helped them offer different views about relationships with each other and the environment. Listening to children's thoughts and feelings made visible in documentation provided the content for teachers to engage in reflection, interpretation and dialogue. It provided a process through which new professional knowledge became part of and shaped the teachers' personal practice.

When the teachers became disheartened at the children's responses to their efforts, the pedagogista offered simple developmental explanations to them. For example, she suggested that before children are ready to settle down and focus attention they have to figure out group dynamics such as "who are these other kids and how do I fit in?" The pedaogista worked with each teacher's disposition so that the value of knowledge was strengthened and collegueship built to unite in association to advance their professional goals.

### Re-examining My Theoretical Basis

The bond, that links the theorists who have influenced my understanding and interpretation of my findings, is their desire to get to the root of things. Malaguzzi stresses children's need to play with life's rules by using the grammar of their own imaginations. Children's lives are highly prescribed and if they are to learn to act and think for themselves, they must acquire playful methods that enable them to figure out what the words, expressions, forms and shapes of their culture mean. Malaguzzi, deeply influenced by Vygotsky's theory, believed that children must be encouraged to question, challenge, generate and reproduce their own meanings. Through the 100 languages, they are enabled to narrate their own lives, for example, through investigating gargoyles or castles. In their related imaginative play, with its own rules that must be respected, children act a 'head taller than themselves' in their zone of proximal development. Imaginative play enables children to put language into effect on their own behalf. When children assume the role of an imaginary figure in "once upon a time there was" a beginning is provided, an invented time, a verb for playing in the present although grammatically in the past. Such interactions imply a communal context where children can share and become considerate about each other. Different children can come together to grasp and solve their personal and social challenges. For example, after making individual dreamcatchers, a group of four-year-olds decided to make a dreamcatcher to protect a group of younger children.

For Dewey, teachers who use democratic teaching strategies such as listening, take hold of children's activities, help give them direction and uncover processes that will enable them to confront (political) problems in their everyday lives. Magda's relationship with a particular child (Ben) was based on listening where understanding and awareness were generated through sharing and dialogue. Magda valued the relationship between Ben's subjectivity and the intersubjectivity of his peers. She recognized a unique and equal opportunity for participation, that is, Ben's demonstration of interest in tracing gargoyles at the Light Table, as a sense of belonging in order to develop his own subjectivity.

Whether it is one particular area, for example, the 'new art area' or the total environment, such as the 'dance studio', an environment that acts as a third teacher provides tools. As primary and secondary artifacts (Wartofsky, 1979), tools provoke and maintain ideas (tertiary artifacts) belonging to both teachers and children. Narratives and objects such as monsters and dreamcatchers become protagonists that shape meanings for a community of learners (Wenger, 1998). Daily practice becomes a history of meanings that can be ongoing re-negotiated as teachers consciously and critically reflect. Such reflection creates a more stable and informing discourse or text where historical realities are no longer quilted (Lacan, 1991).

#### Extending and Deepening Understanding

The findings in my Study extend and deepen understanding of four interwoven threads. That is, data concerning the role of the pedagogista, communities of practice, the environment, and 'cracks'.

### The Role of the Pedagogista

My assumptions for the study were that the Reggio Emilia Approach had significant professional ideas to explore, that the volunteer teachers had interest and time to participate and that the relationship between the pedagogista and the teachers would be workable and productive. In fact, the pedagogista played a central role in assisting the teachers make sense of the principles of Reggio Emilia, especially the environment as a third teacher. As a competent member of our early childhood community of practice, the pedagogista offered mutuality of engagement with the teachers. She was able to establish relationships in which this mutuality was the basis for an identity of participation in our community of learners. She understands the enterprise of our community practice deeply enough to take some responsibility for it and to contribute to its pursuit and to its ongoing negotiation with the community in her text (Fraser, 2000), workshops and collaborations. As well as her ability to make use of the repertoire of practice to engage in it, it requires enough participation in the history of that practice to recognize it in the elements of its repertoire. It also requires both the ability and the legitimacy to make this history newly meaningful in shaping new practices that the teachers were encountering. The pedagogista suggested changes to the environments, materials and documentations that assisted the teachers in beginning to be less literal and more literate about 'reading between the lines' and experience transcendence with the children. To do this, she suggested teachers make observations that might uncover shared processes of meaning about their values to enable dialogue and interpretation.

### The Environment as a Third Teacher

During the eight month study, the communities of learners in each location made significant contributions to changing their environments to underscore the image of children as competent and able to co-construct learning with peers and teachers. There were many choices to provoke engagement, exploration and representation with different media and materials. The teachers planned for the flexible use of space where what the children were doing could be documented in order to interpret underlying theories and rationale for the experience. Relationships affected the presentation of materials in the environment, for example, small clay monster figures were displayed beside drawings and paintings. This was a particular opportunity, to recognize the power of the environment as a third teacher, through which parents might enter into egalitarian relationships with the children's teachers. These relationships developed through informal means of coming together to share ideas and skills, for example, making dreamcatchers. The children received a powerful message about the importance of partnerships among the adults in their lives which could encourage them to move with confidence in developing new relationships.

### Communities of practice

Learning is a process that takes place in a participation framework. It was the

community of children, teachers, parents and pedagogista who learned in these particular contexts. Meaning, understanding and learning are relative to actional contexts with materials in social engagements. This means that learning is mediated by the differences of perspective among children and teachers. Learning, viewed as a feature of social practice, that is, engagement in practice, rather than being its object, may well be a condition for the effectiveness of learning. When children (and teachers) were confronted with new practices (for example, the new art area as a secondary artifact) they were provided with more than an 'observational' lookout post. They crucially participated as a way of learning by both absorbing and being absorbed in the 'culture of (new) practice'. Over an extended period of time, children (and teachers) were provided with ongoing opportunities to make the culture of practice theirs. Initially, there was a general idea of what constituted a community practice. Viewpoints from which to understand the practice evolved through changing participation in relation to the children's ongoing interests, for example, in shiny and transparent objects.

Children and teachers in these activity systems share understandings concerning what they are doing and what that means in their lives. They are engaged in learning curriculums which consist of situated opportunities for the improvisational development of new practice. It is a field of learning resources in everyday practice viewed from the perspective of the learners. This kind of learning curriculum is essentially situated and characteristic of each community.

Access to understanding is highlighted by the artifacts used in ongoing practice.

For example, children may be familiar with tracing paper, but tracing at the Light Table onto overheads (transparencies) is more than learning to use tools. Understanding the 'technology' of practice is more than learning to use tools. It is a way to connect with the history of the practice (of tracing) as well as to participate more directly in the ongoing group investigation (gargoyles). Learning to become a participant involves learning how to talk about a practice (how to trace overheads) and talking from within the practice (the quality of outcome, i.e. gargoyle image). Talking within includes exchanging information necessary to the progress of ongoing activities. Inside shared practice both forms of talk fulfil specific functions, e.g. engaging, focusing and shifting attention, and supporting communal forms of memory and reflection. The purpose is not to learn from talk but to learn to talk as key to participation. Artifacts need to be designed supportively to provide a good balance. Using artifacts and understanding their significance interact to become one learning process.

The intricate relationship between using and understanding artifacts is mirrored in transparency which combines invisibility and visibility. Invisibility in the form of interpretation and integration into an activity and visibility in the form of extended access to information. For example, the invisibility of an overhead (transparency) is what makes it an overhead, that is, an object through which the world, or in this case, a gargoyle becomes visible. The very fact that so many things can be seen through it makes the overhead itself highly visible, that is very salient. The invisibility of the mediating artifact

is necessary for allowing focus on, and thus supporting the visibility of the subject matter. at the Light Table.

### Cracks

I defined cracks in Chapter IV as transitions between children being involved in a project that has lost momentum and a new topic of interest to investigate. Perhaps cracks represent a major contradiction between continuity and displacement, which is part of all learning. This tension is fundamental whether children and teachers jointly have a stake in the children's increasing knowledge and skills or whether there is a conflict where the teacher's desire is to prescribe and the children's desire is to learn. Are cracks a way in which children and teachers maintain identities and generate competing viewpoints on practice and its development? Children need to engage in existing practice, which has developed over time, to understand it, to participate in it. They also have a stake in its development as they begin to establish their own identity in its future. This means that the move of learners, for example, to close down the gargoyle investigation or to turn to dance, does not take place in a static context. Since activity and the participation of the children and teachers involved in researching, their knowledge, and their perspectives are mutually constitutive, cracks may represent a centrifugal movement away from the existing community of practice to be followed by centripetal movement inwards to the new. This is one explanation of the equilibration process. Another explanation for understanding the apparently sudden occurrence of critical threshold points may lie in

Prigogine's explanation of chaos theory. He describes a pendulum swinging first between two magnet in a set plane and a second among three magnets in a set plane as a dramatic illustration of the sudden transformation from simple to chaotic order. As it swings between two magnets, the pendulum's movements are rigid and repetitive. With three magnets placed on a surface equidistant from each other the momentum (speed times weight) is low, the pendulum swings between two of the three magnets as if the third did not exist. With a slightly stronger push increasing the momentum, the pendulum will swing between alternative sets of twos, that is, a b back and forth, then either b c or a c. With a stronger push, a 'radical new behaviour evolves. At first the pattern remains the same. Then, at some critical point the movements break into chaos, oscillating wildly among the three magnets. This radical new behaviour implies the non-existence of a pattern but there is one – a crack? It lies not in the movements themselves but in the pattern that emerges.

#### Implications for further study

My Study took place over eight months. There was little time in hectic child care days for the teachers to deconstruct their practice together. The volunteer teachers had the added responsibility of supporting their co-teachers understanding while they themselves were exploring new principles and practices. A study of much longer duration, engaging all teachers in each location, would enable the development of the key relationship with the pedagogista. The purpose of the shared work would be clear:

to develop strategies for understanding and promoting children's learning in a deliberate and collaborative manner with parents. By beginning with a message that parents are welcomed and expected to be interested in their children's education and care, working relationships will develop that enable both teachers and parents to address complex issues and insure that enduring relationships can be established. Such a long-term study would offer many angles of approach for research. For example, an examination of the principles of the approach as a renegotiated basis for practice in early childhood pre-service training; the role of artifacts as mediating entities in the early childhood environment; the language and reasoning of children who enter into the irony with teachers; the documentation and analysis of multiple 'cracks': is a 'crack' a realignment of experience and competence, whichever pulls the other?

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## Appendix 1

### OBSERVATION MATRIX

Children's Story

Teacher's Story

Learning Story (environment,  
materials + time)

Pedagogista Story

## Appendix 2

### PERMISSION FORM FOR PARTICIPATING TEACHERS: August 2002

#### **CHANGING TEACHERS' BELIEFS AND PEDAGOGIC PRACTICES** to be investigated by Anne Carr, doctoral student, Educational Studies, UBC

**Capilano College: August 22-24, 2002: *Opening Doors: Materials, Negotiated Curriculum and Documentation*.** At this conference, which you will be attending, Sue Fraser, along with other speakers, will offer "hands on experiences" as well as theoretical presentations. Later on in the project (January 2003) Sue will visit your centre and mentor you in your identified themes of interest based on the conference content.

Just before your attendance at the Conference I will conduct a group interview on how you use materials in your present curriculum and if this use is documented in any way. Immediately after your attendance at the Conference I will conduct another group interview during which I would like to discuss Conference content that engaged you and what kind of ideas/plans you may have to follow up in your own centre. Both interviews will be videotaped.

#### ***September-December 2002:***

During this period of time I would like you to keep a weekly journal based on how you, as an individual teacher, experience the changes you are making. Perhaps you will focus on changes to your environment, or materials you present to children or how you make their learning visible. Your journals will help me understand your experience as you begin to make sense of your chosen Conference themes. In late October, I will collect your journals so that I may read the content in preparation for a second videotaped group interview. By reading your journals, I can continue to read about your changing experiences which will prepare me for our second interview together. I may also bring back the memory of your first interview that was held immediately after the Conference. I will return your journals to you so that you may continue to record and reflect until early December.

#### ***December 2002:***

I will collect your journals to continue with my same process. However, this content will inform our January meeting/interview with Sue Fraser

#### ***January - April 2003:***

Sue Fraser will mentor you through practice themes that have emerged in your journal writing. She will visit with you every two to three weeks. I will visit your centre once a week to gather field notes on your collective experience. During this period we may decide to keep a group journal but that as many other components of this action research are open for discussion amongst us all. Since my visits will entail observations of you and children, I will prepare a separate consent form for parents as well as for you.