The Role of Documentation in
Preservice Teachers' Images and Beliefs of Children

Catherine Mott

A Thesis

In

The Department

Of

Education

Presented in Partial Fulfillment of the Requirements

For the Degree of Master of Arts (Child Study) at

Concordia University

Montreal, Quebec, Canada

Canada

ABSTRACT

The Role of Documentation in Preservice Teachers' Images and Beliefs of Children

Catherine Mott

This case study explored the process of creating documentation panels as a means of enabling preservice teachers to reexamine their a priori beliefs of children and to gain knowledge of children's capabilities. It has been proposed that documentation, as well as being aesthetically pleasing, can also be a tool for unmasking dominant discourse and collectively constructing counter discourse (Stedman, 1991). Documentation can act, according to Rinaldi (1998), "as a mirror of teachers' knowledge in which they can see their own ideas and images reflected." It was hypothesized that these students would become more aware of their assumptions regarding children and their pedagogical practices as a result of this process of documentations. It was also hoped that this documentation process would also begin/further the process of reflective practice.

In this study, sixteen preservice teachers were asked to respond to pre-and post - essays tapping into their beliefs about children, including adjectives they use to describe children, what it means to educate a child, and the role of the teacher in the classroom. The preservice teachers were each given an assignment to create a documentation panel that was to be presented to their peers. The participants also wrote a reflecting relating to the process of creating and sharing documenting panels. Finally, the participants engaged in a focus group allowing them to elaborate on this entire documentation experience.

The overall outcomes of the study add to the emerging evidence that engaging in the process of creating documentation panels is an important method of helping preservice teachers' reexamine their images of children . The documentation process

encouraged reflective practice and participants gained new insight into children's

competence.

ACKNOWLEDGMENTS

Finally, this project would not have been made possible without the students of EDUC 295. Thank you for taking part in this research and allowing me to explore this topic further.

Table of Contents

List of Tables

The Role of Documentation in Preservice Teachers' Images and Beliefs about Children

Statement of the Problem

This case study was designed to explore documentation panels as a means of influencing first-year preservice teachers' images and beliefs about children. The notion of images is important to examine given that each teacher candidate brings with them an implicit image of children as they enter the teacher-training program. The term image, as it is used in this study, refers to "the way in which a person is perceived or regarded" (Funk & Wagnall, 1983). Beliefs are associated with images and are operationally defined as "the self-reported working philosophies or theories of practice" held by individuals (McMullen & Alat, 2002, p.4). Indeed, research has indicated that teachers are more likely to be guided by their commitment to their prior beliefs about children than by instructional theories (Stremmel, 2002).

The images we hold appear to reflect our own values, our aspirations for the next generation, our beliefs about child development and more generally, our cultural perspective. This image becomes a lens through which we view and interpret the child and decide how we will respond as teachers (Nimmo 1998, p.296). The images are sometimes captured in metaphors, and our metaphors of children affect all areas of an early childhood program - interactions, relationships, environment, and subject material. This, according to Malaguzzi (1993) "orients you as you talk to the child, listen to the child, and observe the child"(p.54).

As students arrive in the teacher-education program they often hold a very limited view of children's capabilities, and research has shown repeatedly that changing one's

beliefs is a difficult task (Kennedy, 1997). These beliefs about teaching are shaped by the many hours those prospective teachers have spent as pupils in the classroom (Zeichner & Tabachnick, 1981). Zeichner and Tabachnick argue that these traditional beliefs remain latent during formal training in pedagogy at the university and resurface as a major force once the candidate is in his her own classroom. Kennedy (1997) reported that teachings challenging preservice teacher's beliefs are often dismissed as "theoretical, unworkable, or simply wrong" (p.10). In actuality, the prior beliefs of preservice teachers might actually hinder learning and teaching. According to Tatto (1998), culture, past experiences, and learning through observation may have a larger influence on preservice teachers than formal teacher education. His important work on beliefs concluded that "lay cultural beliefs among teacher education students are strongly ingrained and that most teacher education is a weak intervention to alter particular views regarding teaching" (p.155).

Hill, Stremmel and Fu (2005) assert, "Beliefs are such a large part of the individual that they become a part of your personality and disposition that is deeply ingrained in your psyche" (p.5). Because of this, Raths (2001) proposes that teacher educators need to take on the task of changing the beliefs of teacher candidates early in a program to optimize the impact the program may have on learning new teaching practices. Supporting this proposition, there is increasing evidence emerging that through self awareness opportunities, students can challenge their preconceived notions of education and become receptive to the teacher education program as a means of transforming their ideas (Bennett, 1986; Pajares, 1992). Indeed, Newman (1991) argues

2

that ongoing critical reflection is a powerful means through which teachers transform their beliefs and practices.

In recent years, various forms of documentation have been successfully used as tools to examine pedagogical issues such as curriculum. Documentation in this thesis is defined as the "process of recording and reporting on children's learning with the intent of communicating through multiple media" (Hong and Forman, 2002, p. 26). This process allows teachers to gather "information about children's ideas, words and their work." It can act, according to Rinaldi (1998), "as a mirror of teachers' knowledge in which they can see their own ideas and images reflected, and in which we can also find other and different images with which to engage in dialogue" (p.121). Documentation often assumes the form of panels or display boards containing photos, observations and children's work samples of children engaged in a classroom experience. Over the last few years a team of pedagogues from Reggio Emilia schools in Northern Italy have developed and researched this approach and are leading proponents in this field, teaching and training teachers and educators now in many parts of the world.

Teachers have successfully used documentation to gain a deeper understanding of children, enabling them to view children more positively (Kocher, 2000). Documentation can inform teachers about children's interests and guide curriculum development so that classroom projects and activities become meaningful and engaging undertakings for children (Katz and Chard, 1996). Most importantly, pedagogical documentation can open up possibilities for critically and reflectively challenging our current practice. It has been proposed that documentation, as well as being aesthetically pleasing, can also be a tool for unmasking dominant discourse and collectively constructing counter discourse

3

(Stedman, 1991). Additionally, Carr (2004) has argued that 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. Forman (1999) adds that documentation helps make the learning process more visible for all members of the learning community. He states that documentation can "create an attitude of reflective practice, a memory for details, and a platform for discourse among teachers and colleagues. This understanding comes from a more general knowledge of child development which is mobilized by this documentation" (p.4).

Thus, learning through this means may have a larger influence on preservice teaching than traditional courses and fieldwork (Tatto, 1998). In the light of the above emerging data on documentation as a means of deepening preservice teacher reflection and understanding, a case study was undertaken introducing panels within their coursework as a primary means of documentation. The purpose was to investigate the utilization of documentation panels as a means of encouraging first year undergraduate student teachers to construct new knowledge about children's capabilities and to begin to explore and perhaps reconstruct their images and beliefs regarding children. By reflecting upon these images and engaging in this documentation process, it was hypothesized that these students would become more aware of their assumptions regarding children and would be able to examine their beliefs and pedagogical practices. As documentation has been shown to be a useful tool for making a teacher's thought processes, beliefs, and change visible, as well as a vehicle for discourse with colleagues, it was expected that this kind of introspection would lead participants to consider alternative methods of teaching and interacting with young children.

Research Questions

The study was guided by four research questions:

1) To what extent did the process of creating documentation panels enable student teachers to reexamine their images of children and to gain knowledge of children's capabilities?

2) Did the discussion and exchange during the making and viewing of panels alongside peers help students reexamine their taken-for-granted assumptions of children?

3) How did preservice teachers see this process of documentation as a tool for their own future classroom practice?

4) Did this form of documentation begin/further the process of "reflective practice"?

Chapter 1

A Personal Context

As an instructor in the Early Childhood and Elementary Education program at Concordia University, and co- teacher of a course entitled "Pre Kindergarten Seminar and Practicum," my colleague and I made the decision to embark on having first year preservice teachers experiment with documentation panels. This non-graded assignment was chosen for a variety of reasons, as discussed above, with the main reason being to encourage preservice teachers to gain a deeper understanding of children and to enable them to view children more positively (Kocher, 2000). On a personal level, I first became aware of the potential of this form of media as a powerful teaching and reflection tool as a co-teacher in the Concordia University Observation Nursery. As I reflect on my own early training in Early Childhood Education (ECE) in the mid seventies, I undeniably held a deficit view of children. The beliefs I held about teaching revolved around the notions of meeting children's needs and more importantly eliminating their weaknesses. This is not atypical of curriculum and teaching practices in Western societies that largely assume teachers should determine and control what is taught (Stremmel, 2002). My training was heavily weighted on child development knowledge and little emphasis was placed on understanding children in context. I was well-versed in the linear progression of child development theory, but unprepared for problems requiring a more divergent type of thinking that I was faced with when I entered the classroom. I left teacher training with the guarantee of certainty and arrived in the classroom to meet uncertainty. Filtering adult preconceptions is a challenge; it is difficult to make wise, meaningful decisions about our practice without first examining the ideas that we have inherited either from

our socio-cultural environment, or by the orthodoxies that were directly taught us in

school. It seemed that much of the theory I had learned did not quite match the realities of

the children I was facing each day as a teacher in a classroom.

Later on in my career, spending a great deal of time supervising students in early

childhood settings, I became perplexed about how trained educators appear to undervalue

children for who they are. Although I found that educators in the field report themselves

as being "child centered", I observed that children were often not really listened to or that

the curriculum was uninspiring. As Howard Gardener (2002) writes in *Making Learning*

Visible (2002), "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).

More recently, after visiting the Reggio Emilia schools in Italy, I came to truly

appreciate the contrasting beliefs of childhood that the Reggio Emilia educators hold.

These professionals see children as "powerful, serious, having inquiring minds, deserving

of respect, and above all having rights" (Edwards, Gandini & Forman, 1998, p.127*)*. In

these Italian schools, childhood is respected and believed to be the foundation that will

"enable children to grow into adults who are creative thinkers and responsible citizens"

(Fraser, 2000, p. 37).

In these schools, documentation panels are used on a regular basis to represent

children's ideas, theories, conversations, and competence. Upon my return from Reggio

Emilia, my co-teacher and I became dedicated to the documentation process. As a

teacher, creating documentation panels raised the need to continually question and

deliberately reflect on our practice and beliefs about children. Amongst other things, I

continued to marvel at the intelligence and competence of children, and I also learned to

trust children in a different way. I allowed children time and opportunities to explore

their theories of the world. As a result of this personal experience in documentation, I

deemed that this type of activity would be a useful method of challenging student-

teachers' views of childhood and of beginning a reflective process that would provide

them with long term benefits.

Chapter 2

Literature Review

Images and Beliefs

Recent socio-cultural perspectives in early childhood education emphasize the

connection between the image of childhood held by practitioners and their practice

(Burman, 2000; Dalhlberg, Moss, & Pence, 1999). Zeichner and Tabachnick's (1981)

earlier research suggested that student teachers' latent beliefs about children become a

major force once teachers are in the field. Kennedy (1997) and Bruner (1996) go so far as

to assert that the prior beliefs of teacher candidates can hinder learning about teaching.

Pajares (1992) suggests that unexplored beliefs of beginning teachers may be the reason

why teachers perpetuate antiquated and ineffective teaching practices. Rokeach (1968)

suggests that if a central belief is changed, other beliefs within the person's belief system

are also affected (p.4). He argues that beliefs are closely linked to the ego or sense of self.

There are two prevalent paradigms of teacher change research. The first is a

rational empirical strategy suggesting teachers pass through stages that are sequential and

linear. In this paradigm, teachers change their approach to teaching merely by exposure

to concepts from teacher education experts. Conversely, the second paradigm, a

normative- re-educative strategy, suggests a more flexible and innately conceptual

developmental process (Richardson & Placier, 2001). This paradigm is based on

"phenomenological and hermeneutic assumptions of humans making sense of change

situations. The change process is enhanced and shaped by teachers personally and deeply

reflecting on their beliefs about teaching and learning and their practices in the

classroom" (Hileman & Knobloch, 2005). Formal teacher education programs can play a

significant role in this change process (Richardson & Placier, 2001).

In addition, McAninch (1993) has advanced the notion that if teacher education

candidates were to study cases of instruction through the lenses of others and not just the

lens of their own beliefs, changes in their belief system might take place. Festinger,

(1957), who elaborated dissonance theory, has suggested that if we engage teacher

candidates in activities that arouse dissonance, beliefs might change. One of the sources

of dissonance identified by Festinger is "past experience" colliding with new cognition. It

is an assumption of this investigation that this kind of disequilibrium will cause

participants to re-examine their beliefs about children.

Reflective Practice

In order to stimulate this collision between a priori understandings and new ones,

teachers must engage in some form of reflective practice. Reflective practice can be

defined as "raising questions of inquiry into one's own teaching practice and to examine

the underpinnings of ones own work" (Newman, 1991, p. xvi). Reflection is an important

skill as one becomes a professional, and learning to hear one's own voice amongst the

vast amount of information in the education field is part of this process. Katz (1996)

notes that it is important to begin the process of reflective practice at the early stages of

teacher training rather than waiting until graduate study, which is more often the case

(p.405). Optimally, documentation, the means chosen for this study as a way of

provoking such changes in thinking, works best when teachers and colleagues have an

opportunity for discussion and exchange of ideas (Forman,1999).

Documentation

In general, little attention has been focused on the role documentation plays in facilitating preservice teachers to examine their constructs of children Much of the research that is available is based on axiological knowledge and mostly relates to documentation in a general sense. However, Project Zero at the Harvard Graduate School of Education in collaboration with Reggio Children carried out a comprehensive look at the phenomenon of documentation (Project Zero, Harvard Graduate School of Education, & Reggio Children,2001). From this body of work it was concluded that by representing experiences from the classroom, documentation could "serve as a catalyst for teacher inquiry, providing opportunities to question assumptions about teaching and learning and to better understand educational practices. In this way, Project Zero found that documentation could play an important part in creating and sustaining learning communities" (p.12). Furthermore, "consideration of children's learning often sheds light on the teachers' role in that learning, making learning visible also makes teaching visible. This is how we learn to teach!" (p.13). Project Zero also notes that learning to document takes time and schedules need to be considered. As with all learning, competence emerges slowly and requires a thoughtful audience to provide feedback (p.86).

Drawing on research from the Reggio Emilia schools, Goldhaber (2001) at the University of Vermont's Campus Children's Center also discovered that collaborating with staff on documentation led to a deeper understanding of children. She writes that "the documentation process provided us with a forum through which we could give voice to the competence and rights of young children" (p.132). Goldhaber observed that documentation allowed "children and adults to become partners in an intellectual and

11

emotional enterprise that builds our identity as individuals and as a learning and loving community" (p.144). The net result of documenting for teachers, then, "is a change in the image of their roles as teachers, a change from teaching children to studying children, and by studying with children, learning with children" (Forman and Fyfe, 1998, p.240).

Additionally, Forman (1999) has explored the benefits of teachers collectively looking at videotape, obtaining a range of interpretations and then working towards a common understanding or point of view. From this experience, teachers worked together to select and design a documentation panel. He believes the passage from mere display to reflective documentation "travels the path from informing to educating and thereby changes the teacher's perspective on children" (p.4). The act of gathering and using documentation requires the teacher to closely attend to, reflect upon, and seek another's assistance on ways to analyze and interpret the intentions of children's drawings and words. This idea of passage and transformation is also reflected in the work of earlier social constructivists such as Vygotsky (1934, 1986) and Wertsch (1985), who believed knowledge is gradually constructed by people becoming each other's student, by taking a reflective stance towards one another's constructs. It causes teachers to look for theories, assumptions, false premises, misapplications, and differences in communicative intent (Forman and Fyfe, 1998, p.247).

Engaging in the documentation process can also provide us with an excellent opportunity to enhance our understanding of children and child development (Forman, 1999). By using "instant video" as a form of documentation, Forman noted that each time an individual writes a caption to add to a photograph of an encounter they can index their knowledge of child development. He states that,

These indexed anecdotes are priceless and the people with the largest collection of these pearls are often the most effective teachers. These indices do not just give us access to the actual playing out of the principle in a living context. We can use this knowledge to design new encounters [and] experiences for children. (p.6)

Chapter 3

Method

The research was designed as an exploratory qualitative study, taking place over a thirteen-week semester within a course entitled "Pre Kindergarten Seminar and Practicum" at Concordia University. The practicum is the first of five in a four-year undergraduate program in Early Childhood and Elementary Education (ECEE), leading to teacher certification in the Province of Quebec. It is the only practicum in a preschool setting. The course consists of three components: a) a weekly seminar, b) a weekly lab, and c) a seven-hour per week volunteer placement in a preschool setting. The principle researcher, also one of the instructors of the course was responsible for arranging practicum placements. Each student received one scheduled visit at the preschool setting from the instructor during the term. The research used a case study approach and data were collected through a variety of means to ensure its richness. The setting was the workplace of the researcher making the participants and data collection convenient. It was expected that this endeavor would serve as a valuable experience for both the instructors of the course as well as the student teachers. It was viewed as a means of gaining knowledge and insights about their own practice.

Participants

The participants (P1 through P16) were thirteen female and three male students in the first year of the ECEE program. Their ages varied from 19 to 35 and they were from a variety of ethnic backgrounds and they had differing cultural experiences. They entered the program with varying levels of experience working with children, ranging from babysitting, to working in daycare fulltime, to being a parent. Some had already taken a

few courses in ECE and Child Studies, including Art Education, Child Development, Historical and Philosophical Foundations of ECEE. Admission to the ECEE program is highly competitive, and students selected in consideration of their grade-point-average, experience in working with young children, an interview, essay, and reference letters.

Procedure

On the first day of the term students were informed of the research project and given the choice to participate or not. The researcher clearly explained that assignments related to the project would not be graded and that students would not be penalized for opting out of the study. All students agreed to participate, and provided their written consent (Appendix A).

Data

The data was obtained from multiple sources in order to ensure triangulation. These sources were (1) an initial questionnaire on students' current understanding of documentation panels; (2) pre-and post-study essay responses to three reflective questions; (3) a documentation panel with an accompanying reflection; 4) three individual case studies; and (5) focus group discussions with all participants.

Pre-Study Questionnaire

In the first class session, participants completed a short questionnaire on their existing knowledge of documentation. The pre-study questionnaire (PSQ) was comprised of three questions each requiring a narrative type response: (1) "How would you define the term documentation?"(2) "How is documentation useful to teachers?"; and (3) "What aspects of the class do you think teachers should document?" To ensure confidentiality, responses were recorded on sheets of paper containing pre-assigned numeric identifiers to

match each student. These identifiers remained consistent throughout the study. The responses to each of the questions on the PSQ were coded according to the types and frequency of descriptors.

Pre-Study Essay and Post-Study Essay

Participants completed two, short essays in class designed to capture their conceptions and beliefs about children prior to and following the intervention. The essays were divided into three sub scales a) the student's images of children, b) the students view on educating children, and c) the role of the teacher. Essays were chosen for this undertaking, as they can be an excellent means of gathering opinions and attitudes. These same questions were administered once again during the last class. The essays were coded in terms of pre-determined categories regarding beliefs and images of children based on historical views of children (Aries, 1962; Elkind, 1993). Frequency counts were also used in both essays regarding the descriptors utilized by the undergraduates to describe children.

The Documentation Panel

The panel assignment was introduced in the third week of the term. Students were given a brief description of panels as carefully arranged photos of children engaged in an experience, transcriptions of children's conversations and comments, artifacts created by the children to represent their thinking and learning processes, and finally teachers' commentaries on the experience (Gandini, 1993). For research purposes, participants were not shown examples of documentation panels. This decision was made based on my past experience as a teacher; whereas when students are presented with models they have a tendency to simply replicate precisely what has presented by the teacher. Participants

were advised that the panel could focus on a project with the children or a moment of learning. Step by step instructions were not provided; rather students were told that the documentation panel should have a narrative quality, telling the story of a learning experience. The logistics of making a panel were discussed in class including parental consent and the materials required for constructing the panels. Students were also informed that they would be asked to present the panel to a group of peers on the second to last class of the semester. Finally, they were told that they would be given two half-classes of ninety minutes each, to discuss and work on their panels as a group in the later portion of the semester. Following the presentations of the panels, each student was asked to complete a short reflection piece on the value of documentation and of viewing other individual panels.

As part of the analysis, the panels were analyzed using the same categories beliefs about children that were used to interpret for the essays on beliefs and images of children. Secondly, documentation questionnaires that related to the panels specifically were coded in terms of themes that emerged from the participants' responses in particular those that related to the values of documentation and the viewing of other classmates panels.

Focus Groups

At the end of the semester participants were divided alphabetically by surname into two focus groups each consisting of eight students. The purpose of the focus group was to provide the students' with an opportunity to discuss in an informal setting their images of children, and the role that documentation and reflective practice had played in examining their images of children. The questions posed during this session were similar to the asked in the written. The focus groups were videotaped in the Concordia

Observation Nursery seminar room. The students were aware of the videotape and a moderator familiar with the topic led the group discussion. The rationale for choosing this method is that by carefully planning and moderating the discussion group, the participants could engage in a more informative dialogue and in a less formal setting than the university seminar class. Through this focus group, data on a wide range of opinions, attitudes and feelings were gathered regarding the documentation process. According to Anderson (1998) this type of group setting "attempts to create a synergistic environment resulting in a deeper, more insightful discussion" (p.73).

The data from the focus group was compared to the information gathered from other instruments. It enabled the researcher to examine more closely participants' views on children after engaging in the documentation process and also the impact, if any, of this assignment on their teaching practice.

Mini Case Studies

For the last phase of analyses in this case study, three students were selected at random and followed in more depth as individual case studies from the beginning of the study until the end. The data of each individual was analyzed in terms if any changes that might have occurred over the course of the study and how these might be reflected on their individual panels. Hence, both consistent changes and inconsistencies could be more thoroughly investigated. The case studies provided a sense of a person's complete perceptual and practical journey throughout the study.

Chapter 4

Findings

This chapter presents the results from each of the five sources of data: (1) the

initial questionnaire on students' prior understanding of documentation panels; (2) pre-

and post -study essay responses to three reflective questions; (3) documentation panels

with an accompanying reflection; 4) three individual case studies; and (5) a sample of the

focus group discussions. A complete set of responses to all of these investigative data is

included in Appendices B- H.

Pre Questionnaires on documentation

Question 1

It was evident from the sample of the pre questionnaire (see Table 1) that many of

the preservice teachers had a general sense of documentation. Clearly, many of the

participants linked the skill of observation and recording to documentation. For example,

eight out of the sixteen participants used terms such as "writing down" in their answers.

Six participants included the term "observation" in their response. The term "recording"

was counted three times and "gathering information" was used twice. In addition, several

responses connected the observation to specific developmental skills, assessment and

activity plans. Lastly, several participants thought documentation could be used to

communicate to parents and one candidate commented that we could learn about

children's interests. For example, Participant 1 wrote that "through observations of the

children we can document and plan activities and find out what the children were

interested in."

Table 1

Question 1: How would you define the term documentation?

Participant	Response
1	Writing down information about the children. Taking time to observe the different developmental levels of the children in the classroom.
3	Means some written programs or subject from which people can have the opportunity to learn something.
4	By observations of the children we can document and plan activities and find out what parts the children were interested in.
8	Writing down observations which you have observed to get a bird's eye view of your groups intellectual capabilities and what you can do to help improve your program to suite your needs and the needs of your group.
9	Write ideas down on paper.
10	Documentation is the useful information gathered to use later for a purpose or a goal.
14	Lets the parents know how the child is doing.

Question 2

The responses to question two, concerning how documentation can be useful to teachers, demonstrated that participants had many notions relating to how this medium might be used by teachers. As seen in Table 2, the two most frequent responses from the participants were that documentation was useful as a tool for communicating with parents and that it helps teachers prepare curriculum. Other notable responses were that documentation helps teachers pay attention to children's interests and can help teachers assess problems and find solutions to issues that occur in their class. The remaining responses include that documentation informs teachers of a child's level of development and teachers can also use it as a way to exchange ideas. Perhaps one of the more interesting comments was that documentation can serve as a tool for "events, methods, thoughts and ideas that otherwise might have been washed away by the ways of time" (Participant 16).

Table 2

Sample of Responses to Question 2 on Pre-Questionnaire on Documentation

Question 2: How is documentation useful to teachers?

Participant	Response
1	It is important to know the interests of children. It can help the teachers and directors prepare the curriculum and deal with children.
2	Observe kids interest and produce new activities.
6	How the child is progressing. What level the child is.
10	With the gathered information the teachers have more knowledge and can assess solutions and difficulties. Can help you work with parents to solve problems.
11	Important to document the action to see if anyone can change the negative behavior ex. biting, hitting.
12	Can be used as communication between home environment and the classroom environment.
16	It helps to remember events, methods, thoughts and ideas that otherwise might have been washed away by the ways of time.

Question 3

The most frequent response to question three, regarding the aspect of the class

that teachers should document (see Table 3), was the "activities that transpire in the

classroom." The second most frequent response was "teachers' observations." Other

responses included recording conversations, domains of development, children's work,

projects and taking photos. The distinction made in these particular responses, in

comparison to previous questions, is that several of the participants mentioned alternative

methods of documenting such as tape recording, work samples including artwork, and

photographs. Another significant finding, when comparing the responses from the three

questionnaires on documentation, illustrated that children were now seen as individuals

.For example, Participant 10 stated that documentation can aid teachers "to have more

knowledge and can assess solutions and difficulties. Can help you work with parents to

solve problems." In other words, the remarks given by the participants related to the

children that they specifically dealt with rather than understanding children in a general

sense.

Table 3
Sample of Responses to Question 3 on Pre-Questionnaire

Question 3: What aspects of the class do you think teachers should document? Why?

Participant	Response
1	write down their observations, take pictures, recording their conversations.
2	not really sure. I believe if we look at child development we can look at the different domains of development.
3	the teacher should document to help everybody to recognize social, emotional, cognitive reflexes.
7	Activities that transpire in the class.
11	Behaviors that are difficult, activities, fun events.
13	Whenever there is a change or a new child or new year.
16	I would document comments of children that I find important for their future. I'd record activities that the children engage in and ideas they come up with as well as remarks they have made about their art works. I would also include samples of their artwork or 3 dimensional work.

The Pre and Post Essays on Beliefs and Images

The pre and post essays contained more interesting and fuller data and proved quite revealing in terms of students' taken-for-granted beliefs about children and teaching. Below are summaries of responses to each question, followed by an overall summary (see Appendix C for complete set of responses to Question1).

Question 1

What are some adjectives you would use to describe a child? To analyze the responses, descriptors were color-coded based on a particular view of childhood. The following coding scheme was used in regards to Question 1 of the pre-and post study essays. The schemes relate to historical and current views of childhood.

1. Romantic View (RED). The romantic view is exemplified in the writings of Rousseau. Children are described as emotional, fragile and vulnerable. Children are innocent beings that are in need of our protection and nurturing. The goal of this approach is to invest in teaching the child in order that he or she becomes a good uncorrupted, useful citizen. (Examples of descriptors: cute, happy, naïve, innocent).

2. Trainer View (BLUE): Children are seen as needing redemption. This viewpoint sees the child as the inherently "bad" child and often leads to adult using demeaning terms for children. These early adult-driven ideas were reinforced by the Protestant Reform movement and are reflected in the notion that we must "make the best of a bad job." The goal of this approach is that of "training" children to be civilized and useful members of society. (Examples of descriptors: destructive, needs limits, whiney, bossy).

3. Maturationist View (GREEN): This view, elaborated by Gesell and sometimes known as the age-stage approach, promotes the natural child who develops in definable stages. Many child psychology theories have evolved from it. This interpretation is adult-led and the goal of this approach to child development is to help create an independent child who will become a socially and cognitively competent adult. (Examples of descriptors: observer, resilient, excited to discover).

4. Progressive View (ORANGE): This view, elaborated in the writings of Dewey, sees children as social beings, as thinkers interacting with the environment. The goal is to see children as participants and school as a microcosm of society where childhood is not a preparation for adulthood but an end in itself. (Examples of descriptors: creative, intelligent, unique).

5. Postmodern View (PURPLE): This represents the recent understandings of children and childhood where children are seen as leaders in their own learning experiences. Phrases associated with this view are children as co-learners, children with rights, children as activists and social actors. Childhood is considered as it is lived through children's eyes and experiences. The goal of this approach is that teachers learn alongside or with children. (Examples of descriptor: authentic)

Table 4 features a sample of the frequency counts that were tabulated regarding adjectives used to describe children on Question 1 of the pre-and post essays. Only the highest frequencies are highlighted in this table and the complete list of adjectives can be found in Appendix D.

Clearly, the data in Table 4 shows a shift in participants' descriptors of children from a more *"romantic view"* of children to a more predominantly *"progressive view"* of children. The most striking examples indicate a shift from children described using words such as *"cute, innocent and emotional"* to children as *"curious, intelligent, imaginative, creative beings."* Notably, the participants shifted from only one postmodern adjective in the pre-essay to a total of seven in the post-essay questions.

Table 4

Highest Frequency of Adjectives in Responses to Question 1 on Pre-Essays and Post Essays

Question 1: What are some adjectives you would use to describe a child?

Adjective	Pre Study Questionnaire	Post Study Questionnaire
cute	6	0
innocent	6	1
emotional	4	1
curious	3	6
pure	2	0
affectionate	3	3
honest	3	0
imaginative	1	4
creative	2	4
challenging	2	0
explorer	1	4
enjoyable	2	0
loving	2	1
intelligent	1	3
observant	0	3
impressionable	2	0
playful	2	4

The frequency counts are tabulated in Table 5, illustrating the overall shift in adjectives in Question 1 of the pre-and post-essays. The numbers below demonstrate the results and support the findings that the participants at the end of the study used fewer romantic and training adjectives to describe children. The largest shift was in the increase in adjectives that fall under the progressive viewpoint in which children are regarded as self-motivated, thinking beings.

Table 5

Summary of Frequency Counts for Pre- and Post Essays

Descriptors Based on Views of Children	Pre- Questionnaire	Post- Questionnaire
Romantic View	67	32
Trainer View	23	4
Maturationist view	3	8
Progressive View	16	48
Postmodern view	1	8

While the results of the frequency counts were promising, the actual analysis of the number of participants who shifted their views regarding children provides a more realistic view of the data. Table 6 illustrates that almost all of the preservice teachers showed some shift in their beliefs, with the majority of students exhibiting a definite shift in beliefs. The majority of teachers shifted from a romantic and training view of the child to a more progressive viewpoint. Finally, the analysis revealed that two participants did not demonstrate any shift and that one participant actually shifted from an initial progressive view of the child to a more romantic (innocent), and training (needs limits) model.

Table 6

Summary of Responses to Question 1 of Pre and Post Essays

Degree in shift of beliefs	Number of participants	Comments
No shift	1	
Slight shift	1	Participant shifted from a more progressive view of the child to a more romantic and training view.
	5	Slight shift to progressive view
Definite Shift	9	7 of the participants in this category shifted from the romantic, training view of the child to a more progressive view of the child. 2 participants shifted to a more postmodern view of the child.

The following coding scheme was used to analyze the findings for question 2 and 3 of the pre-and post essays. The terminology and choice of the colors were as closely linked as possible to the coding scheme for question 1.

1. Protector: This teacher plays the role of definer and nurturer (top-down model).

2. Trainer: This teacher sees her/himself as a redeemer and shaper of behavior (top-down model).

3. Cognition /Developmental Model: Teachers in this viewpoint base their understandings of children on predetermined age/stage rules and performance criteria. Teaching is seen as standardized teaching, while the child remains individually accountable for failure and success (top-down model).

4. Reciprocal model: Teachers play the role of observers, learners, and reflectors. They are creators of circumstances in which children can explore and learn. Teachers are viewed a partners, negotiators and guides in children's journey toward adulthood.

5. Interactive model: In this more recent model, teachers are viewed as critical thinkers, respecter of children, reflector, observer, and co-learner. They are providers of opportunities for children's voices, concerns and interests (child-led model).

Question 2

In the second essay question, preservice teachers were asked to define what it means to "educate a child." As demonstrated in Table 7, in the initial essay many of the participants were pre-occupied with the behavioral issues that surround educating children (a full set of responses is found in Appendix E). For example, the teacher needs to "teach them to be polite and get along." Moreover, the child is viewed as lacking motivation and as malleable. In the post-essay we can observe a significant decline in these types of answers. Preservice teachers began to grasp a more interactive model of education where the teacher is seen as an individual who is interested in children's thinking and learns alongside the child. In this view, children take a more active role in leading the curriculum.

Table 7
Sample of Responses to Question 2 on Pre-and Post essays

Question 2: What does "educating a child really mean?

Participant Number	Pre-Essay	Post-Essay
1	-educating a child really means to teach a child -to create an environment where children teach themselves -create a safe place where children learn freely -to help children learn to respect one another -educator's must be patient ,empathetic and supportive -to be non- judgmental -to be an example - to promote creativity , curiosity ,and freedom of thought	- it means learning with them -guiding them and giving them the freedom and skills to pursue their inquiries -it means being able to nurture as well as step back -it means thinking and reflecting, making connections -it means being able to step back and view the child in a holistic way and to provide challenges that allow opportunity for the individual child to develop in areas
7	-allowing the child to be involved in his or her	-facilitating a child's learning experience by

	learning experiences -letting the child explore the world through play -giving them a push in the right direction	teaching hands – on concrete activities to enhance their learning experience -allowing them in terms to participate in their own learning process -observing children from a distance and allowing them to discover the world through play
6	guiding them towards new corridors of knowledge in a gentle and sensitive manner, -the child must be ready at a stage -need to nurture their needs and their minds - it involves teaching them about right and wrong giving them liberties to try things on their own	to introduce children to many aspects of the world and letting them discover on their own things that are meaningful to them -it means responding to their needs and providing a good environment for learning to occur -it takes into account their diversity and requires flexibility in one's approach

| | | ...supporting their inquisitive natures |
| | | |

Table 8

Summary of Responses to Question 2 on Pre and Post Essays

Summary of Data for Question No.2	Pre Study Essays	Post Study Essays
Protector	6	5
Trainer	17	3
Cognitive/Developmental	23	15
Reciprocal model	20	21
Interactive model	1	8

Question 3

What is the role of the adult/teacher in the classroom? The purpose of this question was to build upon question 2 and look specifically at the role of the adult in the classroom. As noted on Table 8, the results from this question support the results from Question 2 with an even larger shift to the interactive model of classroom teacher. Furthermore, in both questions we see less of an emphasis on teaching "subjects" to more of a focus on the child and the teacher as provocateur arranging the environment based on the interests of the child.

Table 9
Sample of Responses to Question 3 on Pre-and Post Essay

Question 3: What is the role of the adult/teacher in the classroom?		
Participant Number	Pre Essay	Post Essay
1	-we are there to help them get along with others - To develop a well rounded person To model specific behaviors and to discipline when necessary	-we are like conductors of an orchestra. We must never forget that students are musicians that make their own beautiful music alone, with others and one day without our help -nurturer, guide, facilitator, observer, participant, role model, friend, skill provider, thought provoker, material provider, self-esteem booster -teachers need to have many different skills in order to be successful at their job. Children are complex beings
	-to set an example and to be aware of the messages	-is a resource for children to learn or get help

14	they are sending -to guide children's learning and encourage their whole development	- to bring in new things to find out about to explore to learn from together -To promote respect, creativity and freedom of thought
4	-is to teach children values, rules and everything that is needed to function well and properly in society -Teach them skills and useful things they do not already know. - Teachers are supposed to provide the students with the rules and regulations that are to be followed and respected. - Teachers should be regarded as a positive model and friend to his or her students. Children can imitate their behaviors.	-is to guide the children in the right direction -to give the children opportunities to learn -to ask stimulating questions - to provide interesting materials that stimulate children's thinking -to lead them to have new experiences and help think through those experiences - to provide various easy of exploring the topic or concept

41

	-teachers should provide students with feedback about their progression of lack of, in order to know where they stand.	

Table 10: Summary of Responses to Question 3 on Pre-and Post Essays

Summary of Data for Question No.3	Pre Study Essay	Post Study Essay
Protector	12	5
Trainer	14	8
Cognitive-Developmental	21	9
Reciprocal model	12	20
Interactive model	0	12

43

Responses to Reflection on Documentation

This section presents an analysis of the written reflections completed by the participants after viewing their classmates' documentation panels. Undeniably, their responses showed that the participants considered panel making as very influential in their thinking about children and teaching. The themes identified in responses to Question One included reflective practice, observation, assessment, slowing down, activities, communication, teacher role, understanding children, and children's competence.

Question 1: How has the panel making assignment influenced your thinking about children and teaching? (The complete set of responses to Question 1 of the Reflections on documentation is included in Appendix G.)

Reflective Practice

The first benefit identified was the opportunity to engage in reflective practice. Five of the participants reported that the skill of reflection was heightened and more interestingly, the reflection was not focused only on themselves as teachers but also on their personal development. For instance, Participant 9 wrote, "I enjoyed making the panel and it allowed me to take a look at myself as both a person and a future teacher."

Observation

The second benefit of this assignment was a reawakening of the significance of observation. Participants realized the importance of using observation in terms of gaining a better understanding of children. For example, Participant 8 wrote, "the panel allowed me to really focus and take note of the process that the children applied in their activity. I was able to pay close attention to the comments children made as they worked, because I

was more able to step back and observe." This quote, along with others, indicated recognition of the importance of examining the processes that children engage in on a daily basis, and not only focusing on the end accomplishments of children.

Assessment

Assessment was a key concept that resulted from the documentation assignment. Several participants acknowledged the authenticity of documentation in comparison to standard methods of evaluation. Participant 12 provided an example of this type of response:

> I do no longer feel the pressure to evaluate children according to letter grades, instead with the use of a documentation panel, I can observe and document the child's learning and use their findings to determine what the child knows, or is questioning, asking about."

Slowing Down

Panel making influenced two participants in terms of their daily life in the classroom. Both Participants 7 and 13 identified the need take time to live with children in the classroom, and to be flexible in their planning. This is illustrated in Participant 7's response, "Making the panel has also made me think more about "capturing the moment." It reminded me as a teacher to slow down and not to be so scheduled."

Activities

The fourth theme reflected the possibility of reconsidering the meaning of the activities that they had planned for the children. The result of this reexamination was that they focused more on children's interests and tried to provide a more child centered curriculum. Participant 16 reported his commitment to planning more meaningful

experiences for children in the following passage: "I realized that my initial planning was not very meaningful. The voice recorder proved to be a useful tool. It really helped me just listen to the children." Participant 10 became conscious of the importance of paying attention to the conversations that were transpiring during the activities. She wrote, "When doing the panel, I realized the different things children would say during an activity and how others would respond."

Communication

Another theme that emerged in the participants' thinking about children was that documentation could be used as a means of communication. Participant 12 wrote "The panels are a wonderful source for children, teachers and parents to see the learning process in action and feel a sense of connection." It is through this visual genre of communication that the children's learning processes were made evident and available to a wider audience such as parents and other teachers.

Role of the Teacher

The role of the teacher was again highlighted through this assignment. Participant 4 came to the understanding that teachers do not have to take a dominant role in the classroom. Participant 11 emphasized this when she wrote, "I realized that I do not have to be the source of the child's learning. Rather they can learn through their play, and through interaction." Participant 9 recognized the need for flexibility and for considering children's feelings in their classroom experience.

Understanding Children

The notion of understanding children also surfaced from these reflections. Participant 4 came to the realization that children are active learners and not just passive

receptacles for information. Participant 7 reveals this deeper understanding of children and their thinking,

It prompted me to look deeper into the children's learning. I looked at the photos of the children working and their responses to questions to see what they valued and cared about. At first, I thought that they only arranged materials in a manner that was pleasing to them, but there was much deeper thought involved.

Participant 6 become aware of the importance of looking at children's' misunderstandings as means to appreciate their thinking.

Children's Competence

An overarching theme in the reflections was that of children's competence. Participant 15's reflection is a representative example of this understanding. "The panels enabled us to reflect on the children's thinking process. I was surprised at the wonderful problem solving skills that were displayed among the children." An emphasis on competence was also clear in the reflection of Participant 1 who wrote: "It allowed me to get an idea of the children's strengths and accomplishments during play, dialogue and inquiry."

Question 2: Was it useful to look at other students' panels? If so, in which way?
(see Appendix H).

The second question on this questionnaire attested to the usefulness of looking at other participants' panels. All participants reported that this task was advantageous and inspiring for a variety of reasons. Five teachers found it useful to see the different teaching styles and approaches that were used by the teachers. Participant 11 spoke of the new respect that she gained for the "work that teachers do." Interestingly, Participant 6 attested to the fact that looking at the documentation panels "was a form of support for me to see their work." The themes identified in relation to Question Two were perspective taking, children's competence, and the experience as a generator of ideas.

Perspective Taking

The second revelation that came from viewing each others' panels was in regard to perspective taking. By engaging in this exchange of information, candidates entertained alternative viewpoints. Participant 13 wrote, "It proves that there are many ways to teach depending on your values. You realize that there is no right or wrong way." Participant 14 added to this by writing, "Absolutely, I always learn from seeing the approach that other people take. I also realized that I would have interpreted the same incident very differently. It helps when someone can explain their thinking."

Children's competence

Thoughts on children's competence again surfaced in answers to this questionnaire. Perhaps the most poignant response came from Participant 16 when he wrote, "I have a new appreciation for children. I never thought that they were so capable.

When I look at the activities I provided most of them were pretty lame." Furthermore, Participant 9 responded similarly "I didn't realize that three year olds could do so much."

Ideas Generator

Viewing of each other's panels gave participants tangible ideas for future panel making. They gained ideas on design and the concepts that can be chosen to display. Participants also reported getting many new ideas for activities. One participant reported that the sharing session helped her gain a better understanding of child development. In addition, Participant 3 wrote about the value of the panels as a way to communicate to parents: "It was really great to have the chance to see what sorts of things were going on in other centers. As a parent, I would be grateful that these panels were displayed at my child's daycare center."

Participant 6 showed a particular insight, when she wrote, "I also enjoyed the types of investigations that other students did with the children and how the children responded. It motivated me to take a risk and try new things with the children." This comment deserves special consideration. When students identify risk-taking as an element of teaching and learning, they are starting to think and act beyond their normal comfort zone. This is key to change, and an essential part of reflective practice.

From the above comments, it was clear that the panel sharing experience was motivating and stimulated many new thoughts regarding children, teaching, and learning. Their responses emphasized the complexity of documentation and its power as a tool for reflection.

Case Studies

Three participants were studied in more depth for their understanding of documentation, the child, of teaching, the role of the teacher and their actual panel. The following highlights some of their initial beliefs, and also some ways in which they shifted their position. To create a broader picture, participants were requested to give a brief description of their cultural and family background, and their early learning experiences at the beginning of the essay portion of the study. This autobiographical material is included at the start of each of the three case studies.

Case Study Number 1 – Angela (P1)

Angela's Cultural Background

My cultural and family background is quite diverse. My mother was born on St. Vincent (West Indies). She is part Scottish, part black. I feel I have been quite blessed to be born of parents with such a rich cultural make-up. Being able to relate to various cultural groups is an aspect that I know has helped me to grow both personally and professionally. My early experiences included rich and diverse exposure to others, and to extended family. I have never attended a pre-school or daycare as my mother cared for me at home with my other siblings.

Angela's Understandings as Reflected in the Data

From the onset of the study Angela had a general idea of documentation as illustrated by her definition of documentation recorded on the pre-questionnaire (PSQ). She described documentation as "writing down information about the children and taking time to observe the different developmental levels of the children in the classroom." This knowledge was further supported by her response to Question 3 on the PSQ in regards to what aspects of the classroom teachers should document. She responded that teachers should "write down their observations, take pictures, and record their conversations." Angela was cognizant of the importance of documentation in allowing teachers to "consider children's interests in preparing the curriculum", and in "dealing with children." Furthermore, when reviewing the adjectives in Question 1 of the pre-and post-essays that Angela used to describe a child, we can see that she shifted from a romantic (e.g., "busy, playful, cute, honest, spirited") to a more progressive view (e.g., "reactive, explorer, curious, unique, creative").

In comparison, her views on educating children are not so easily categorized. For example, her views on educating children in Question 2 of the pre-essays, present an array of responses that predominantly fall into the idea that education should function as a means to protect children. This is typified in the following response: "to create a safe place where children learn." Evidence of her belief in education as a training model for children is also indicated in her response "to be an example of behavior." In addition, we see that the cognitive/developmental model prevails: "educating a child really means to *teach* a child skills." However, analyzing her responses to the same question in the post - study essay, one can see a movement in her beliefs to a more reciprocal model of education in the following response: "educating a child means learning with them and it means thinking, reflecting and making connections."

On closer examination of Angela's views on the role of the teacher, in the pre-essay there is an emphasis on the training role of the teacher in terms of regulating behaviors. This viewpoint is evident when Angela wrote: "the role of the teacher is to model specific behaviors and to discipline when necessary." She also described the role of the teacher as to "produce a well rounded individual."

In the post-essay Angela uses a vast number of descriptors to depict the role of the teacher. The majority (7) of her responses fall into the interactive role of the teacher. She also includes descriptors such as participant, promoter of respect, creativity and freedom of thought all the while noting that children are "complex beings." She also describes teaching as being similar to being "conductors of an orchestra."

Angela's Understandings based on her Written Reflection and Documentation Panel

Completing the panel assignment appeared to be thought provoking and important to Angela. In the reflection portion of the study she wrote,

> Engaging in the process of documentation gave me the opportunity to step back and really reflect on the experiences the children have. It in a sense helped me focus on the internal drive and motivation that is the utmost importance. The experience of documenting has allowed me to step back from the moment and look at the children's experience from a different angle. I now feel more prone to stop, and observe when children play. It has really helped me see teaching as both a learning and reflective experience. It allowed me to really get an idea of the children's strengths and accomplishments during play, dialogue and inquiry.

Angela also described viewing peers' documentation, as "extremely useful." She continued, "It helped me to see that there are different ways of doing things. Since I really want to continue documenting in the future, seeing other panels gave me ideas for the future. It showed me different approaches."

Moreover, in the focus groups, she reported that viewing the panels helped her plan her curriculum. In the group discussion she commented, "I realized curriculum is like a circle–observing, planning etc. Being flexible was something we all have brought forth as important." Angela emphasized the value of documentation as a means of communication: "I think these panels are a great way to communicate to parents. As a parent I would love it. It speaks volumes. It shows how your child fits into the group. It also gives you ideas to try out at home."

In her panel, Angela chose to document her initiative to add to an outdoor easel to the children's daycare environment. Her rationale for choosing this particular experience was that "young children often have difficulty taking into account the perspectives of others and as a result, arguments can occur. Furthermore, the easel was made large to encourage the children to socialize." Her panel consisted of specific observations of the children exploring the easel and the skills they were acquiring. She included as text on the panel, "all of these observations show the children learning skills which will benefit them throughout their lives." Angela was also able to identify children's curiosity and conversations regarding the easel. In effect, she was able to note the children's engagement in perspective taking and at the same time documented her own inquisitiveness in children as problem solvers (e.g., "Do you see? My name is upside down but Tammy's isn't!").

Angela's Documentation Panel

Outdoor Easel
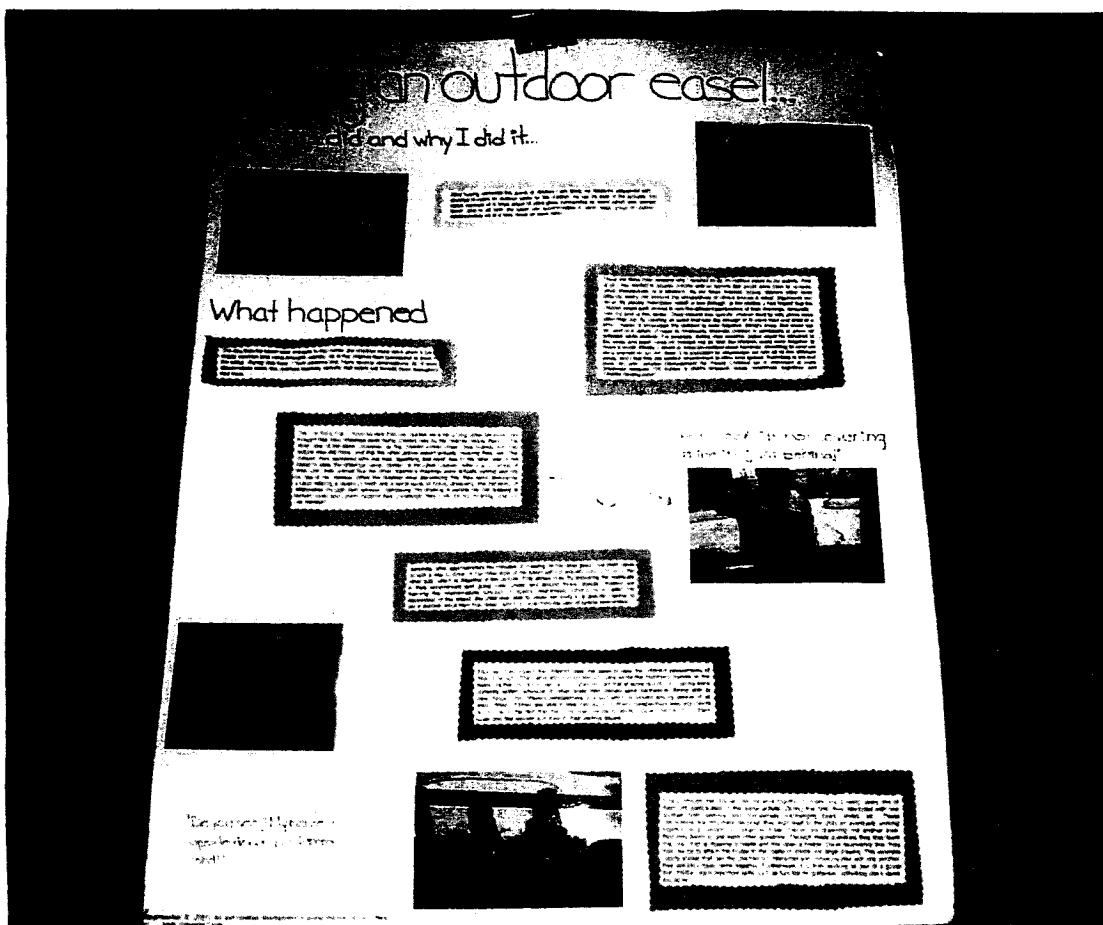
Case Study Number 2 – Catherine (P5)

Catherine's Cultural Background

My cultural background is Italian. I was raised by my mother because she decided

not to work and raise my two sisters and myself. Being raised in an Italian family

gave me the knowledge of strong family values. My memories of early learning

experiences involve lots of direct teaching from my teachers. I do not recall

having a sense of control of my own education, or it being cooperative.

Catherine's Understandings as Reflected in the Data

Catherine's definition of documentation lacked detail. She defined documentation

as "recording something" and wrote that documentation was useful for teachers as a

method of recording "what has been done in the past." In response to the question on

what aspects of the class that teachers should document, she wrote: "keeping record of

what they did."

However, exploring Catherine's understandings regarding children, teaching and

the teacher's role, a shift in understandings emerges. For instance, when analyzing

Question 1 in the pre-and post essays regarding the adjectives that describe children, we

see some modest changes in Catherine's descriptors, using fewer romantic descriptors. In

the pre- test Catherine used 5 Romantic descriptors (funny, loving, playful, emotional,

naïve), and in the post-test she recorded only 1 (playful). When looking at Catherine's

responses to Question 2 in the pre-study questionnaire regarding what it means to educate

a child, diverse approaches to education surface. Catherine's ideas touch upon the

romantic view where education "helps with the process of allowing the child build the

basic foundation for life", and also the "training" model that tends to view children as

"not competent in making choices." Furthermore, she perpetuates this trainer model stating that children are in need "of guidance and direction in order for them to reach their potential." When comparing these responses with the post-essay, Catherine's answers have definitely shifted further towards the developmental model. Here, she considers that the role of the education should "provide guidance to enable the child to discover new concepts and develop new skills, as well as enabling them to develop their potential and become a successful member of society."

When examining Catherine's responses to Question 3 on the post-study essay, two functions of the role of the teacher in the classroom dominate. First, we see evidence of the image of the teacher as trainer in the following response: "to be a role model for behaviors that are important and necessary for the children to learn if they are going to grow and develop. Teachers play an active role in children's socialization." The developmental approach is also present in the comment: "the teacher provides the basic instruction and the child builds upon these building blocks as they progress through school." However, in her post-essay Catherine shifts to a slightly more postmodern view of the teacher in the classroom.

> The role of the teacher is to guide and enable children's learning, focusing on their interests and encouraging their strengths. The teacher needs to really listen and pay attention to the children. They have lots of good ideas. I learn from them everyday.

Catherine's Understandings based on her Written Reflection and Documentation Panel

The documentation panel assignment also proved meaningful to Catherine. In her reflection after presenting her panel she wrote: "I think the documentation panel helped

me focus more on what the objectives for my activity were, and how they were met. It also made me more critical and analytical, especially in terms of linking my observations and interpretations to theory. It allowed me to present a visual picture of an experience I enjoyed and the children also enjoyed, and where the focus was on the investigation." This statement illustrates a more reciprocal model of education than previously seen the pre-essays. And, in regards to viewing peers' panels Catherine wrote, "It was interesting to see the different activities other students implemented with their children. It was also interesting to see the different perspectives that students have in regards to young children's learning."

These views were supported by her comments in the focus group. She stated that "looking at other panels and our own forces you to reexamine your own practice and think about other people's perspectives. By documenting you take children more seriously and you look more deeply into their ideas." She emphasized the value of documentation on a personal level in the focus group.

> I think the documentation panel helped me focus more on what the objectives for
> my activity were, and how they were met. It also made me more critical and
> analytical especially in terms of linking my observations and interpretations to
> theory. It allowed me to present a visual picture of an experience I enjoyed and
> the children also enjoyed, and where the focus was on the investigation.

Catherine also discussed in the focus group the teaching strategies that she acquired as a result of engaging in documentation. She said: "I learned not to have everything pre planned. I had expected at the beginning of term just to have all my

activity plans ready to go. I saw from my own documentation and everyone else's that we need to remain flexible. Things often change course."

Catherine's panel describes a two-fold process in which she followed the children's interest in butterflies and also researched a topic of interest to her as a teacher. Her action research was based on the following question, "What will happen if interesting materials are left out for the children to discover in an open-ended fashion?" She documented a number of experiences where children could investigate butterflies using authentic materials such as magnifying glasses, specimens of real butterflies, and rulers. Children raised many questions as a result of these investigations, such as: "How do butterflies grow?" Catherine was able to capture the children's intellectual and emotional engagement through the photos she chose for her panel. In addition, she was able to examine children's theories, as she included children's hypotheses about how the butterflies had died. The final text on the panel is indicative of the meaning Catherine found in this assignment: "through their explorations and self initiated play activities, children construct knowledge and develop individual skills and interests…and at the same time they enjoy themselves and become motivated to keep exploring and learning."

Catherine Panel

Butterflies

Jacqui's Cultural Background

When I reflect back on my childhood years, I immediately feel a sense of safety, security, comfort, and innocence. Luckily my Canadian/European culture acknowledges that children are not miniature adults, and allows children to develop in a safe environment (for the most part). My family life prompted healthy development to occur by creating a loving, safe home for me to grow and by stimulating my creativity and curiosity. I spent a great deal of time outside with the neighborhood children.

Jacqui's Understands as Reflected in the Data

Jacqui defined documentation as "writing down the important points that you observe." She considered documentation useful to teachers in that it "lets parents know what is going on in the class and what their child is doing." In terms of what teachers should be documenting she wrote "activities that transpire in the classroom."

In the pre-study essay, Jacqui used 4 romantic descriptors and 3 descriptors that fall under the progressive view of children. In her post-study essay, the progressive descriptors remained at 2, the romantic descriptors diminished to 2 and there is the inclusion of 3 words falling into the postmodern view (strong, smart and powerful).

On pre-essay question 2, (i.e., what does it mean to "educate" a child?) Jacqui had mostly an interactive vision of education, which allows children to be involved in their learning experiences and to explore the world through play. In contrast, she believed that education must be responsible for "giving them a push in the right direction," which is more in line with the training model. In the post-essay Jacqui maintains her conviction to

the interactive view of education "allowing children to actively participate in their own learning process. We should observe their learning from a distance allowing them to discover the world through play." In this essay, there is no evidence of the trainer model. The developmental model appears in this statement "educating a child means to facilitate a child's learning experience by teaching hands-on, concrete activities to enhance their learning experience and skills."

In regard to the role of the teacher in the pre-study essay, Jacqui recorded primarily interactive views. For example, she stated teachers take a "guiding role where they facilitate rather than initiate." Jacqui expanded upon this by writing, "The teacher takes more of a constructive role, where she takes clues from the children to guide her." She also expressed some training views such as "the teacher should plan classroom activities and there should be routine and rules, but children should be involved cooperatively in this process." In the post-essay, Jacqui substantiated her belief in the teacher as facilitator. She wrote that the teacher's role is "to facilitate the learning process for children rather than directly telling the children what and how to do things." However we do see a shift to a more reciprocal approach to teaching, as she wrote, "teachers need to become skilful observers of the children's play to help us learn more about how children learn." She expanded on this in her reflection on the process of making her documentation panel,

> The panel making assignment has made me think more about children and how to better teach them. It reinforced the idea of focusing on children's interest and following their ideas. It made me listen more attentively to what the children are saying and focus more on their learning and their needs. Making the panel has

also made me think more about "capturing the moment." It reminded me as a teacher to slow down and not to be so scheduled.

During the focus group she added, "I was also amazed at how children are supportive of each other and how much they learn from each other. They have a lot of ideas and opinions. I also realized how motivated children are to learn. They really don't need our praise."

Viewing other students' panels appeared to influence Jacqui's understanding of the value of documentation. Some of the underlying tenets that were brought to light concerned teaching strategies and the value of observation as recorded in the following passage:

> The process helped me understand how children make sense of what they learned and it also allowed me to see individual differences. I found that this type of assignment helped me organize and plan a more child centered activity catering to the needs and interest of the child. The tool of documentation helps perfect the strategy of observing children authentically and in an environment of play, exploration and discovery.

She echoed these ideas in her comments in the focus group:

> I realized how much children learn from one another and it is much more authentic for getting to know the children. This will be useful when I have to do portfolios in elementary school. Also there were topics I would have never thought of covering, for example, photography.

The actual panel making sessions themselves proved useful to Jacqui. This meeting was planned as a way for student to debrief about their documentation and get to

a view of their classmates panels. Jacqui stated that documentation would be useful to her as she embarks on her career in the elementary school system and will need to create portfolios. She also found that viewing the panels was a viable way of getting to know what topics were being covered in other classrooms. In the focus group she contributed:

> Talking over the documentation with other people was really helpful. I learned that there are many ways to do this and interpret the photos class. I was amazed at how capable the children were and how they were able to figure things out.

> In the same session, Jacqui commented on the power of documentation as a form of communication. She stated, "My cooperative teacher was really interested in what I was doing and asked me many questions about my project. It actually really opened up the lines of communication between us, which was a good thing."

> In relation to teaching strategies that came to light as a result of engaging in documentation, Jacqui stated: "I learned that I have a lot to learn about teaching–small steps are best. I also learned that there is a difference between "teaching" and discovering. Discovering goes a lot further. I was surprised to learn that children were able to predict."

For Jacqui, the experience of documentation was also challenging. Her final comment on the panel assignment was:

> This panel making was really interesting however it took me so much time. I am still not sure if I really got it. I had to ask a million questions in order to complete mine. I liked it but I am still uncertain and was very, very stressed over the time factor.

Jacqui's Understandings as Reflected in her Documentation Panel and Accompanying

Reflection

Jacqui's panel described two experiences of children exploring the property of Knox gelatin. She began her panel with the following quote "the art of teaching is....the art of awakening the natural curiosity of young minds for the purpose of satisfying it afterwards." As she described the children's engagement in the experience, she used such words as: "natural curiosity, experimenting, fascinated by his discoveries, as his fingers dance across the wall as an image is projected on the wall, with enthusiasm." The photographs on the panel capture the essence of children experimenting with the material and exploring the overhead.

Jacqui's Panel

Knox Takes Flight

Focus Groups

The focus groups were a forum for participants to openly discuss their thoughts on the documentation process and their beliefs about children. The discussion provided insights into how the panel process enabled them to examine their beliefs and practices and provided a more comprehensive overview of the students' experiences than the essays.

The following are samples of responses from the focus group discussion:

Question 1: How did the panel process enable you to examine your beliefs about children?

Participant 2: Completing the panel helped me clarify my thoughts about children. I have never really had to stop and focus so much on this as with this assignment. I did not realize their potential. They have so much going on.

Participant 8: I know what you mean. Those guys knew a lot more than me. I wasn't really ready for that. They are so knowledgeable. I used so many of their ideas for my activity plans. I loved just sitting and listening to them for ideas. I would have never of thought of doing that before. I always thought that I was in charge of getting all the ideas.

Participant 14: I have more confidence in the children. Before I thought it was my job to provide the entire curriculum, now I am better at following their ideas. I still have a habit of leading, taking over, and definitely talking too much. I am better at free play situations.

Participant 12: By completing this assignment I became more aware of how to include children in the activities. I noticed who was sort of left out in the class. As time went on, I also was able to let go and let the children make decisions - they are really good at this.

At the beginning I made all the decisions. I also learned about the importance of open ended questions that this really gives the children a chance to discuss things.

Participant 6: I too got better at asking questions and I also realized that for children the process is more important than the product. Because of the panel I paid closer attention. In the future I would use a tape recorder to pay attention to myself and the students. I tried to focus on the children and it is difficult to document at the same time. Maybe this improves with experience.

Participant 11: From the documentation, I realized that children are quite sophisticated. As teachers we get so caught up in what children can't or won't do. We need to focus on the positive. I also realized the importance of reading stories more than once.

Participant 16: It helped me observe better and especially when I used a tape recorder- it was much easier. I never realized the things children say. I am usually so stressed carrying out my activity that I really miss a lot. It helped me focus my attention and plan for the next week.

Question 2: Did the actual viewing of each other's panels change your thinking about children?

The responses to this question were of key importance. As we see below, the participants were undoubtedly affected by seeing their classmate's documentation panels.

Participant 2: Listening to everyone present was great. There were so many ways to think about the children and approaches to teaching.

Participant 6: I was really struck by the amount of thought and work that went into the panels. As I look back at the beginning of the semester and how we were all so scared and didn't know what to do. Everyone really helped each other and tried to figure it out. I

know I put a great deal of thought into it and really tried to reflect what I was doing in the classroom. In the end I can see it was really worth it.

Participant 10: Looking at other panels you realize that observations can be understood and interpreted in so many different ways.

Participant 4: Many times as people presented I was thinking to myself that I would have never thought of that type of experience or approach.

Participant 8: After seeing what everyone else put on their panel I will re-evaluate what I am doing and I am trying to improve my interaction skills. I could see that others had better questions than I do and I still get stuck at how to interact and build relationships with this young age group.

Question 3: Was it helpful to engage in the panel making alongside your peers?

Participant 4: When we were working together and we kept asking our selves questions, especially about their conversations. I didn't really think 3- year olds had such a good understanding of science concepts. I actually had to do research before presenting my activity.

Participant 11: First of all, it helped me figure out what was I supposed to actually do and also what my observations meant. I would have liked to have spent more time doing this – this is a very useful process to me especially being new to the program. I was also working with someone who had a lot more experience and that was helpful.

Participant 3: The panel and discussing helped me sort out my thinking /philosophy on different topics. We compared teaching styles and ideas.

Participant 2: Personally I believe that understanding oneself comes easier with a partner. She was more than a sounding board. We had very different viewpoints.

Question 4: Besides this, was there any other value of seeing each others panels?

Participant 6: I liked when we presented the panels how supported I think we all felt.

Participant 3: I felt this assignment really encouraged me to take a risk. I got so many good ideas from the other panels that I want to try out. I would like to do more of this kind of learning in other courses.

Participant 14: I became aware of the importance of field trips. I never really thought of a simple trip like that could lead to so many ideas. From reading everyone's panels I could also see how great this could be for parent teacher night for opening conversations with parents.

Question 5: Did anything else arise out of completing this documentation assignment?

Participant 9: My cooperating teacher was really unsure of what I was doing but when I brought the panel to show her she was really intrigued. She asked me to bring in some information to her about it because she had never heard about this and it inspired her to try one out.

Participant 4: My teacher does some documentation but mostly portfolios. One of the parents really talked to me about the documentation however another parent was a bit nervous about the idea at the beginning. When I hung bits of my panel up for them to see I could tell she really enjoyed reading it.

Question 6: Are there any teaching strategies that you have learned as a result of engaging in documentation?

Participant 7: I learned that I have a lot to learn about teaching - small steps are best. I also learned that there is a difference between "teaching" and discovering. Discovering goes a lot further. I was surprised to learn that children were able to predict.

Participant 2: I learned that in order to observe and do these kinds of panels you have to be super organized and on top of things. I really need to learn how to do this better

Participant 3: I used to think that children had short attention spans. Now I realize that if they are truly interested in something they will stay with it. I kind of learned this the hard way so in the future I will pay attention to their interests.

Question 7: Any other comments that you would like to add about the panel assignment?

Participant 11: Yes the documenting took at long time. I think it would be difficult to do this on a regular basis.

Participant 8: I think that this is all part of this field. I came into the program pretty confident having worked in the schools for a long time and now I am uncertain about a lot of things. I am questioning everything I do - but I think that it is good. I really have improved over the course of the semester

Participant 16: Difficult to know what to document. I am still not really sure. I kept changing my mind. I was just getting to know a little bit about this age group.

Participant 13: Yes there is too much to document while I am just getting used to being with children. It is my first experience.

Participant 2: Documenting made me more aware of myself. Every move I made, every decision I was conscious of. I guess that's good-but it sure is exhausting.

Participant 6: It is hard to document when you are only there one day a week. It was distracting to the children. My cooperating teacher's insight was really helpful. It takes experience to do this and I would love to do this with a team of teachers. I could see how

having different perspectives would be helpful in putting this together. Maybe like a network for teachers.

Participant 11: Yeah, maybe do the panel making assignment with a peer with more experience might be helpful.

Overall, this focus group provided the preservice teachers with a way of revisiting their own development and transformation throughout the panel making process. This intensive interchange offered a valuable avenue of helping teachers develop some common meaning and values as a result of the documentation process. It can be concluded from the data that this assignment certainly heightened conversation amongst the teacher candidates and raised many important questions about children's capabilities, amongst other issues and ideas.

Chapter 5

Discussion

This chapter addresses each of the research questions in turn. This is followed by a general discussion of related findings.

Research Questions

Question 1: Did the process of creating documenting panels enable student teachers to reexamine their images of children and to gain knowledge of children's capabilities?

This data indicate that the process of creating documentation panels is an important method of enabling first year preservice teachers' to reexamine their images of children and to gain knowledge of children's capabilities. This was evident in comments from the participants on the questionnaire after viewing the panels, and in the focus groups. For example, Participant 15 wrote: "the panels enabled us to reflect on the children's thinking process. I was surprised at the wonderful problem solving skills that were displayed among the children." Participant 11 responded similarly: "from the documentation, I realized that children are quite sophisticated. As teachers we get so caught up in what children can't or won't do. We need to focus on the positive."

Not only did participants reconsider their beliefs in regard to children, based on the results of the pre and post essays, they also shifted from a predominantly romantic view of the child to a more progressive view of child. Essentially, after partaking in panel making, they were less likely to view children as "fragile, in need of protection" and instead understood them as "thinkers, experimenters and problem solvers."

Question 2: *Did the discussion and exchange during the making and viewing of panels alongside peers help students reexamine their taken-for-granted assumptions of children?*

The data from the reflections after the presentation of the panels and from the focus group discussions indicated that viewing the panels had a definite impact on preservice teachers' assumptions about children. However, little evidence is available regarding the discussion and exchange that took place during the actual panel making sessions. A limitation of the study was that these sessions were not videotaped nor were observations recorded. In hindsight, these conversations and interactions could have proved fruitful in terms of underscoring and making the evidence from this data even more tangible. However, the focus groups did address this question. An example of the way these sessions revealed teachers' beliefs is an exchange that took place between three teachers:

> *Participant 11*: First of all the sessions, helped me figure out what was I supposed to do and also what my observations meant. I would have liked to have spent more time doing this – this is a very useful process to me especially being new to the program. I was also working with someone who had a lot more experience and that was helpful.
>
> *Participant 3*: The panel and discussing helped me sort out my thinking and philosophy on different topics. We compared teaching styles and ideas.
>
> *Participant 4*: Personally, I believe that understanding oneself comes easier with a partner. She was more than a sounding board. We had very different viewpoints.

It can be seen from this verbal exchange that the participants were beginning to search for theories and examine their beliefs about teaching. Through this collaboration we begin to see the formation of learning communities and clearly these participants valued the support and interactions that were such an integral part of the documentation process. Collaborative relationships are the power, the vigor, and the energy of teaching-a source of passion in the art of teaching (Tegano, 2002).

Question 3: How did preservice teachers see this process of documentation as a tool for their own future classroom practice?

Participants could see the value of using documentation in their own classroom practice. Several mentioned they understood the potential for documentation to help teachers communicate with families. They echoed Rinaldi's (1998) assertion of the value of sharing documentation that explains what the children are doing, as well as how and why they are doing it, allowing parents to understand the meaning this learning has for their children. Participant 12 wrote in the post-questionnaire, "The panels are a wonderful source for children, teachers and parents to see the learning process in action and feel a sense of connection." This is consistent with the suggestion by Brown-DuPaul, Keyes and Segatti (2001), who state that the interactive format of documentation panels makes them more effective in drawing reticent parents into the classroom than many other means often used.

Participants felt that an area where documentation would also be helpful is in assessment. This is evident from some of their comments such as "documentation is a much better measure of a child's development than formal assessments" (P3). Participant 12 adds, "I do no longer feel the pressure to evaluate children according to letter grades,

instead with the use of a documentation panel, I can observe and document the child's

learning and use findings to determine what the child knows, or is asking about .

The idea that documentation could be a tool for slowing down and paying

attention to children and curriculum was consistent with comments regarding assessment.

This is evident in the following passage: "Making the panel has also made me think more

about "capturing the moment." It reminded me as a teacher to slow down and not to be so

scheduled (P7). Carr (2004) reports that documentation can slow teachers down and

provide "a static and visible moment available for analysis and reflection of the social

constructs of our gaze. We can begin to see the roles we have chosen recorded in the

choices we have made" (p.43).

Question 4: Did this form of documentation begin/further the process of "reflective

practice?"

Documentation created an attitude of reflective practice. These attitudes were particularly

evident during the presentation of the panels to the rest of the group. The participants

became mindful of their own thoughts and learning as an individual and also as part of a

larger community. For example, Participant 16 stated, "I have become much more aware

of my own learning that had transpired throughout this process." Similarly, when

Participant 9 talked about how her professional and personal growth that became

apparent as a result of engaging in documentation, we see true signs of reflection. Hill,

Stremmel & Fu (2005) remind us this self-awareness is crucial in the change process

because "we teach who we are" (p.30). The panels themselves became an agent of

reflective practice as they became a "tension" between the participants' beliefs and their

actions. When reviewing their panels, several participants become conscious of the fact

that what they thought they valued as a teacher and how their behavior manifested with children did not really coincide. For instance, Participant 2 stated in the focus group

"When I looked at my panel and my conversation with the children I realized that I was just focused on getting my lesson plan across. I was not really paying attention to what they had to say. In fact, I don't even really know what they said. I really value listening to children and this assignment really made me aware that I did the complete opposite."

Hopefully, these past experience colliding with new experience will bring about change in both actions and beliefs (Festinger, 1957).

This follows Forman's (1999) observation that "documentation is an act of making learning visible–not just for the children but for all readers of the panels" (p. 4). Participant 8 reiterated this idea when she wrote:

I think that it is very important because as a teacher I will constantly be assessing my students and my own work. Panels can allow teachers to reflect and really analyze what is actually occurring. By making this panel I realized how valuable the process of documentation really is for personal growth and learning.

The panels also acted as a memory aid for details. Participant 4 said:

When I looked back and my initial observation on my panel, I really had no idea where I was going with this activity. I wanted to not have a conceived idea of what I wanted the children to get out of the experience. It was a bit daunting, but making the panel helped so me how the whole experience unraveled. In the end I still ended up leading the activity.

This concept of revisiting is, in a sense, a method of reflection. As we look back, we make comparisons and engage in the constructive process of learning.

Finally, several participants reported that reflection was a major outcome of the documentation activity. This process is emphasized in the following passage "When I came into the program I felt pretty confident, having worked in the schools for a long time, and now I am uncertain about a lot of things. I am questioning everything I do–but I think that it is good." This is a common view for teachers engaging in the inquiry process. Hansen (1997) writes: "like learning, teaching is a serious encounter with life's most meaningful and mysterious questions. A teacher, amongst other things, is first and foremost a questioner" (p.13).

Other Findings

In addition to addressing the research questions, this study brought to light other interesting but unexpected findings, particularly as a result of engaging in the panel assignment. Perhaps the most significant of these findings pertains to the role of the teacher. In the post-essays, the participants distinctively spoke about the teachers' job using fewer "trainer" type terms, and were more consistent with the idea of the teacher as a reflective, interactive practitioner. This was exemplified in Catherine's case study. For instance, early on she identified the role of the teacher as "a role model for behaviors that are important and necessary for the children to learn if they are going to grow and develop" and after 13 weeks she saw the role differently. She now changed her viewpoint to the role of the teacher as being able "to really listen and pay attention to the children. They have lots of good ideas. I learn from them everyday." Another participant wrote:

"This experience has led me to understand that teachers do not necessarily have to interfere or direct activities" (P4). Participant 11 shared:

> I believe actually making a documentation panel for the first time, has taught me that teaching can take many different forms. And, that I do not have to be the source of the child's learning. Rather they can learn through their play and through interaction.

Clearly, the panels were instrumental in influencing the way these student teachers implemented and thought about the experiences they provided for children. After engaging in the documentation assignment the experiences were selected with more thought, and with consideration for the emerging knowledge of children's competence. Participants spoke of having "a new appreciation for children." When looking at the actual panels themselves, we notice students trying to connect the experiences they plan for children based on their observations of children's interests and ideas .The process of documentation heightened participants' observational skills and they began to understand the process of inquiry. As Participant 1 wrote, "It allowed me to get an idea of the children's strengths and accomplishments during play, dialogue and inquiry."

The documentation process also encouraged the preservice teachers to consider the use of interesting and thought provoking materials with children. For example, Participant 4 wrote "I was also able to see what children think about and create using their imagination. I noticed that when given even very simple materials such as boxes or marbles, they can invent very creative projects."

The findings demonstrate that documentation facilitated preservice teachers to engage with and consider alternative methods of teaching. Participants reported that

reading about investigations on the panels that their peers had implemented with children, motivated them to take risks and experiment with new ideas (P6). Participant 4 realized that children are active learners and not passive recipients of knowledge. The issue of flexibility in terms of activities and considering children's feeling were also raised. Participant 15 wrote, "It was obvious when teachers are flexible, the activity can take the class on an unexpected route that gives new insight and opportunity for all those indirectly or directly involved." Her words exemplified the reciprocity of learning that was taking place.

Without a doubt, documentation encouraged participants to search for meaningful curriculum for the children (P10). Participants talked about listening more attentively to children, in order to promote meaningful learning. Participant 3 wrote, "More can be learned about a child from the questions they ask than through the answers they give." Participant 11 wrote that documentation allowed her to be able to see beyond the skills and really get at their thoughts. Another reported that she learned to listen to the children's conversations. Perhaps in looking closely at these everyday details, student teachers will learn to slow down. Overall, they appeared to come to appreciate and deeply value this approach to inquiry and to see the importance of teaching from the point of view of children's interests.

Indirectly, an important finding in this study was the usefulness of the interactive sessions (engaging in panel making and sharing of the final panels) that occurred as a result of this study. The majority of preservice teachers found both of these group sessions useful and inspiring. In some cases, these gatherings acted simply as a sounding board, but even this had significance. One participant declared in the focus group:

"Personally, I believe that understanding one's self and children comes easier with a partner. We had very different viewpoints and I came to appreciate her point of view and I think she did too. This happened again when people showed their boards." This "different lens" method is supported by Rinaldi (2001):

> Documentation not only lends itself to interpretation but is itself interpretation. It is a narrative form, both intrapersonal and interpersonal communication, because it offers those who document and those who read the documentation an opportunity for reflection and learning. The thinking of one can influence the thinking of many. (p.86)

Thus, it appeared that having someone to share one's uncertainty with was useful and created an atmosphere of support and acceptance. More and more teachers of preservice teachers are finding that collaboration and mutual support is a necessity in teaching. It is hoped that this initial experience in the preservice program, that of being part of this collaborative group, will encourage participants to grow as members of a community of learners where risk-taking is encouraged and reciprocal relationships bloom. Many students reported that they wished they had had more time throughout the semester to engage in this type of activity. They felt they needed time to talk and exchange ideas. As teachers in these preservice courses we want to foster this ability to take and share perspectives, which is so important to growth as a teacher.

Finally, the most intriguing finding was perhaps that whilst much of the data yielded many positive findings regarding the students' responses to the actual process of engaging in documentation, the documentation panels themselves manifested great inconsistency. Participants often did not capture or were inconsistent in capturing the

competence of children on their panels. In other words, participants' written perceptions were not concretely manifested on many of the panels. Evidence of this phenomenon is demonstrated in case study number 1. On the one hand, she was able to select a meaningful activity for the children based on her observations, yet paradoxically her rationale for choosing this particular experience was based on a deficit view of the child. This is evident when she wrote that "young children often have difficulty taking into account the perspectives of others and as a result, arguments can occur. Furthermore the easel was made large to encourage the children to socialize." Her choice of activity was based on her belief in children's inabilities rather than their abilities. Throughout the panel, Angela was primarily focused on the skills that children were learning even though in her descriptors she had moved to a more progressive view of the child. This is consistent with her description of a much more reciprocal model of education, especially the notion of the many "diverse roles that teachers play in appreciating the complexities of children." In her panel, she portrayed herself as observer and provocateur, while at the same time she focused on skills and subject matter. Moreover, while reflection was evident in the process of creating the panel she remained focused on preparing children for the future.

One possible explanation for the conflicting views of children, presented on the panels, is that the participants themselves were conflicted. As Wein (1995) writes "practice is a struggle to prioritize cherished values, and it may be rare to find in one individual a set of ideals closely matching a single overarching theory of practice (the phrase Donald Schön's (1983),for lived life is more dynamic ,conflicted and muddied (p.1)." Indeed Witchers and Travers(1999) suggest that only once a preservice teacher

begins to reflect more about her or his future teaching can a dominant educational belief system typically emerge that reflects consistency of belief about the purpose and process of schooling.

However, when we look at case number three, a more competent view of the child gradually emerges. Beginning with her views of children as curious, cute, happy, remarkably Jacqui traveled on to views of children as powerful, strong, and spontaneous. In terms of the role of the teacher she moved from guiding and facilitating to facilitating and learning *from* children. Jacqui's panel culminated with a portrayal of the child as competent and an agent of his/her own learning. Her viewing of documentation panels encouraged her to reflect deeply about children and to contemplate their ideas and interests. She viewed documentation as the perfect invitation to understand children's motivations and individual differences.

It is hoped with this beginning awareness and change in students' perceptions of children through documentation, that the foundation for their predisposition towards thinking freshly about children and the nature of teaching has been laid. Even if the participants did not show evidence of totally "buying into" new images of children, they were beginning to move in a new direction. This process takes time and requires sustained work (Nimmo, 1998, p.310). Novice documenters need supplementary experience with this medium. The actual process of learning to observe and creating a documentation panel requires a certain level of proficiency. One might conclude that with experience and opportunities to collaborate with peers, preservice teachers will get better at asking themselves pertinent questions about children and gain a deeper understanding of the potential of children.

Finally, through documentation, the participants "began to become aware of the connectedness of all the parts of the system: space, materials, organization, collaboration among colleagues and parents. They realized how everything contributed to making it possible to really listen to children and to start working a different way" (Gandini,1997, p.*x*)This study demonstrated that documentation can act as a catalyst for student teachers to rethink practice and can encourage everyone to find or rekindle their passion for children. As Participant 14 poignantly stated:

> While thinking about my panel I have realized why I love the field of education. Learning is exciting! Teaching has become all about the children's learning processes now, which is an amazing route to travel!

Limitations

This study had several limitations, the major restriction being the time frame in which the research was completed. One semester is a relatively short period of time to collect data regarding ingrained personal beliefs, which have been developed over a long period of time. As highlighted at the beginning of this study, assumptions regarding children are rarely formalized; they are part of a barely conscious process of assimilating ideas and values and are mostly based on the individual's own early learning experiences. Conceivably, collecting data over a longer period of time might have led to different findings. It would have been interesting to observe if student teachers sustained and built on the changes in their perceptions and practice over a more extended period.

A more in depth study of the exchange during the making of the panels might have been made possible by videotaping and transcribing the sessions when the students got together and worked on their panels, talking and discussing together informally. The data then would have made more visible the extent of the collaboration that transpired, and the discussions that related to assumptions regarding children.

In addition, being the main researcher on this project and also one of the instructors in the undergraduate class where the research transpired, could have posed a problem for the study. Throughout the study I tried to remain as objective as possible and also to ensure that the data was coded by three individuals to safeguard reliability. On the other hand, playing the dual roles of researcher and instructor had many positive attributes. By engaging in this type of action research, I was modeling to the students the process of teacher inquiry. Teachers should always be searching for meaning, and these activities portray the notion that professional growth is an ongoing process of research

and evaluation. This type of behavior attests to our idea of teacher as "researcher, of school as a place of research in a process of shared construction of values and meanings" (Rinaldi, 2003, p.3). As I saw demonstrated first-hand when visiting Reggio Emilia, teaching comes alive when it is seen as research, as investigation, as inquiry.

It cannot be ascertained that the panel making on its own resulted in any shifts in participants' beliefs about children. Many other factors may have contributed to this phenomenon including course content, field experiences, readings or research done by the participant. Regardless of these contributing factors, by taking part in the study participants were encouraged to deconstruct and reconstruct their views of children, with some success.

Conclusion

Despite the exploratory nature of this study, the results highlight the efficacy of documentation panels for encouraging preservice teachers to examine their beliefs and images of children. Revisiting and reflecting on their actions aided by the documentation process, enabled the participants to closely examine their understandings and carefully consider children's intelligence and capabilities.

Perhaps more significantly, the study demonstrated that teacher education programs can be a viable catalyst for changing and examining students' a priori notions. Beginning an examination of beliefs early in the teacher education program, we can hopefully alleviate the tendency of new teachers to perpetuate the dominant practice with its implicit view of children as not competent. Often, in these early stages of becoming a teacher, students might be less secure in their underlying philosophy of teaching and therefore might be more open to change. Furthermore, if we return to Rath's (2001) research, changing beliefs takes time, and by starting at the onset of teacher training, we have a better likelihood of changing beliefs and promoting the development of a reflective disposition. We can encourage this disposition by giving teachers opportunities to document children's experiences while encouraging their sense of mastery over their work (Wein, 1995).By offering these teachers support and time for reflection they can bring to the surface beliefs and images that can be only addressed through conscious effort. Fillipini (1998) suggests that documentation can "enable teachers to become researchers, to learn, to perhaps challenge widely accepted theories and practice and to begin to see themselves as creators of theory rather than consumers of theory" p.132.

Indeed, the driving motivation behind documentation is the desire to reveal in full

light the image of the competent child (Malaguzzi, 1993). Documentation in itself

encourages reflective practice and in particular enables the questioning of our own

practice and our encounters with children. This study would indicate that documentation

acts as a central force and should be part of a continuous process throughout teachers'

preservice training. Loris Malaguzzi (1993), reminds us:

> All people, scholars, researchers, and teachers who in any place themselves study
>
> children seriously - have ended up discovering not so much the limits and the
>
> weaknesses of children but rather their surprising and extraordinary strengths and
>
> capabilities linked with inexhaustible need for expression and realization. (p.72)

As evidenced in this study, preservice teachers needed numerous opportunities for

reflection and exchange of points of view with one another in order to examine the

contradictions and expectations of teachers' experience (Kagan, 1992). Indeed, Fraser

(2000) writes that teachers need to deconstruct before they can reconstruct; this means

providing a lot of time for conversation, commitment to change, and the opportunity to

build relationships.

Thus, everything points to this type of practice deserving high priority when

designing courses, as it is the exchange of perspectives that enables us to discover a more

complex truth about the potential of children. Rinaldi (2003) reminds us that in order to

listen we must welcome differences and uncertainty:

> In listening to each other, it is as if we create an invisible connection between us
>
> each becoming who we are. The threads of listening among us form a pattern that

connects us to each other like a web. Our individual knowledge is a small part of the meaning that holds the universe together. (p.167)

Cooperating teachers are also central in this formula of encouraging students to see the competence of children. These mentors are a credible source for students and, as students observe actual practice, they are more likely to change their beliefs under their influence (Woolfolk Hoy & Murphy, 2001). Students need and deserve exemplary cooperating teachers who hold similar visions of the potential of all children, or at the very least are open minded and reflective themselves.

This case study has added value when placed within the context of the education reforms that have taken place more recently in the Quebec Education system. With their focus on emergent curriculum, documentation could be the key to stimulating curriculum planning within these reforms. By documenting encounters that occur in the classroom, it is likely that teachers will pay closer attention to children's thoughts and actions. One of the implications for teachers in discovering the means to implement meaningful curriculum is that they will be forced to rethink their own views on the image of the child, and to re-evaluate their own understandings of how children learn and what they should learn. Goffin and Wilson (2001) point out that we need to change our notions of children as passive recipients of knowledge, and see them rather as constructors of understanding. When such a transformation occurs, Gandini (1989) asserts, "children are the ones who will shape their school experience rather than being shaped by them" (p.88).

Teacher beliefs and career satisfaction can be seen as interrelated. One might go so far as to suggest that engagement in documentation could stem the onset of burnout

that is so prevalent in the field of education. As Forman (1999) so rightly puts it "attention to detail and thoughtfulness, enthusiasm and fresh perspective reawaken a sense of amazement that can be lost (p.6)." It is this exchange of perspectives between teachers that enables us to discover the truth about the potential of children. Furthermore, teachers tend to work in isolation and the support of others can keep the passion alive. Unfortunately, many practicing teachers are unaware of this form of documentation and perhaps post graduate courses need to be offered in order to offer opportunities for teachers in the field to become proficient in this medium.

In terms of future research, continuing to follow these preservice teachers as they enter their own classrooms and put these ideas into practice would no doubt prove rewarding. Questions remain about the sustainability of this initial examination of beliefs: do teachers revert back to their prior beliefs or not? What are the long-term gains? Do they actually engage in documentation as a practicing teacher? Moreover, it would be intriguing to find classrooms were documentation is being used on an ongoing basis and to research the impact of this on teaching practices and beliefs about children.

Lastly, it would be useful, as members of any teacher education program, to look at consistency within the teacher training curriculum. What views of children are being portrayed in other courses that these inductees are required to take? What teaching training practices model this for the students? As a Department do they hold the view of the child as competent? Only once we begin to unravel these complicated ideologies can we fully play our role in realizing the potential of all children. In addition, if research has shown that teachers' images of children are typically based on what they themselves have

observed and, particularly, experienced in school (Hill, Stremmel & Fu, 2005) perhaps it is time to give preservice teachers a fresh experience in education.

It is hoped that the exercise in documentation that was carried out for the purposes of this research study will have whetted the appetites of the participating preservice teachers for engaging in on-going reflective practice, and that it will encourage them to continue to reexamine their beliefs and images of children. We need to think deeply about what we do as educators because, as we being this process, we truly begin to see and understand the children we encounter daily in our classrooms. As Balaban (1995) writes " facing our biases openly, recognizing the limits imposed by our embedded ness in our own culture and experience, acknowledging the values and beliefs we cherish, and accepting the influence of emotions on our actions are extraordinary challenges" (p. 49).

Within the limits of the present study, it cannot be ascertained whether the preservice teachers will fully internalize their fresh beliefs, or that their newly developed images will become the theories upon which they build their practice. Novice teachers need to be equipped to face the changing needs of all students and this can only be accomplished when students have the ability to think critically and be willing to challenge their "historically and culturally conditioned beliefs about teaching and learning"(Hill,Stremmel & Fu 2005). What is clear is that documentation can act as a tool for inquiry to help us uncover these beliefs and adopt new insights and strategies for growth as a teacher.

This inquiry process needs to become the very center of how we function in early childhood teacher education. The knowledge base generated through the multiple disciplines of early childhood education can serve as the initial framework for

guiding our inquiry; however, our individual interactions with the learning

process must serve as the source of our 'dialogue' in gaining new and richer

perspectives on our relationship with children, families and ourselves. (Swick, Da

Ros & Pavia, 1998, p.76)

Perhaps our greatest challenge is in transforming our vision of ourselves as

learners, and acknowledging that our primary task is to grow. Without teachers who are

committed to growth, children are destined to have static and rather boring learning

experiences. As Ayers (1989) so aptly states:

> Teaching is an achievement, not an endowment. Teaching is created in an inter-
>
> subjective reality, in webs and relationships, in community. Because teachers are
>
> the instruments of their own teaching, they are thrust back on themselves as
>
> inventors of their own developing practice. It is in the moments of confusion that
>
> we have real opportunities to accept new challenges and creates new possibilities
>
> for ourselves. Children are certain to benefit. (p.141)

Throughout the centuries, school has been seen as the place where important

values and knowledge are transmitted to our youngest citizens. Indeed, Rinaldi (2001)

says that school is a place not only where "values and knowledge are transmitted but

above all a place where values and knowledge are constructed" (p.38). Perhaps, if

teachers begin to seriously consider documentation as a key tool in deconstructing some

of the taken-for-granted assumptions upon which we currently base much of our practice,

we will, with time, break the cycle that treats the child as less than competent. We

would, instead, begin to offer society a new image of the child and, equally importantly,

of the teacher. The more we are able to see and understand the child, the more the child

will be able to view him or herself as competent. What have we got to lose?

References

Anderson, G. (1998). *Fundamentals of educational research.* Pennsylvania: Falmer.

Aries, P. (1962). *Centuries of childhood: A social history of family life.* New York: Alfred A. Knopf.

Ayers, W. (1989). *The good preschool teacher.* New York: Teachers College Press.

Ayers, W. (1995). *To teach: The journey of a teacher* (2ⁿᵈ ed.). New York: Teachers College Press.

Balaban, N. (1995). Seeing the child, knowing the person. In W. Ayers (Ed.), *To become a teacher: Making a difference in children's lives* (pp.47-49). New York: Teachers College Press.

Bennett, M.J. (1986). A developmental approach to teaching intercultural sensitivity. *International Journal of Intercultural Relations*, 19 (2), 27-69.

Brown-Du Paul, J., Keyes, T., & Segatti , L. (2001). Using documentation panels to communicate with families. *Childhood Education, 77*(4), 209-213.

Bruner, J. (1996). *The culture of education.* Cambridge, MA: Harvard University Press.

Burman, E. (2000). *Beyond the baby and the bathwater: post dualistic developmental psychologies for diverse childhoods,* paper given at Complexity, Diversity and Competence in Early Childhood, 10ᵗʰ European Early Childhood Research Association Conference, University of London, September.

Carr, A. (2004). *Changing teachers' beliefs and pedagogical practices.* Unpublished doctoral dissertation, University of British Columbia.

Connelly, Michael, & Clandinin, Jean. (1986). On narrative method, personal

philosophy,and narrative unities in the story of teaching. *Journal of Research in*

Science Teaching, 23(4), 293-310.

Edwards, C., Gandini, L. & Forman, G. (Eds.). (1998). *The hundred languages of*

children: The Reggio Emilia approach—Advanced reflections (2nd ed.).

Greenwich, CT: Ablex.

Elkind, D. (1993). *Images of young children. Collected essays on development education.*

Washington, DC: National Association for the Education of Young Children.

Festinger, L. (1957). *A theory of cognitive dissonance.* Stanford, CA: Stanford.

Filippini, T.(1998). The role of the pedagogista. In C. Edwards, L.Gandini, & G.Forman

(Eds.), *The hundred languages of children: The Reggio Emilia approach-*

advanced reflections (2nd ed., pp.127-139). Greenwich, CT: Ablex.

Filippini, T. (2001). On the nature of the organization In Reggio Children, In Project Zero

and Reggio Children, *Making Learning Visible: Children as Individual and*

Group Learners (pp.52-57). Reggio Emilia, Italy: Reggio Children.

Forman, G., & Fyfe, B. (1998). Negotiated learning through design, documentation and

discourse. In C. Edwards, L.Gandini, & G.Forman (Eds.), *The hundred languages*

of children: The Reggio Emilia approach-advanced reflections (2nd ed., pp. 239-

260). Greenwich, CT: Ablex.

Forman, G. (1999). Beyond the attentive eye: The importance of theory for the practice

of documentation. *Canadian Children, 24*(1), 4-9.

Fraser, S. (2000). *Authentic childhood: Experiencing Reggio Emilia in the classroom.*

Scarborough, Ontario: Nelson.

Friedman, D. (2004). When teachers participate, reflect and choose change. *Young Children 59(6), 64-69.*

Fu, V. R., Stremmel, A. J., & Hill, L. T. (Eds.) (2002). *Teaching and learning: Collaborative exploration of the Reggio approach* .Upper Saddle River, N.J: Merrill/Prentice Hall.

Funk and Wagnall. (1983). *Standard dictionary.* New York: Harper & Row.

Gardener, H. (2002). Introductions. In Project Zero, Harvard Graduate School of Education, & Reggio Children, *Making learning visible: Children as individual and group learners.* Reggio Emilia, Italy: Reggio Children.

Gandini, L. (1993). Fundamentals of the Reggio Emilia approach to early childhood education. *Young Children, 49*(1), 4-8.

Gandini,L.(1997). Forward. In L. Cadwell, *Bringing Reggio Emilia Home* (p.x). NY: Teachers College Press.

Gandini, L, & Edwards, C. (Eds.). (2001). *Bambini: The Italian approach to infant-toddler care.* New York: Teachers College Press

Gandini, L, & Goldhaber, J. (2001). Two reflections about documentation. In Lella Gandini & Carolyn Edwards (Eds.), *Bambini: The Italian approach to infant-toddler care* (pp. 124-145). New York: Teachers College Press.

Goffin, S. G., & Wilson, C.S. (2001). *Curriculum models and early childhood education.* Upper Saddle River, NJ: Prentice Hall.

Goldhaber, J. (2001). *Bambini: The Italian approach to infant/toddler care.* New York: Teachers College Press.

Hansen, J. (1997). Researchers in our own classroom: What propels teacher researchers?

In D. Leu, C. Kinzer, & K. Hinchman (Eds.), *Literacies for the 21st century:*

Research in practice (pp.1-14). Chicago: National Reading Conference.

Hileman, S. E., & Knobloch, N. A. (2005). Career and Technical Education Research

Conference, Kansas City, MO. Retrieved August 18, 2006, from http: //

www.lsu.edu-faculty-kotrlik-cterc-proceed.pdf

Hill,L.(2002) A journey to recast the Reggio Emilia Approach for a Middle School: A

pedagogy of relationships and hope. In Fu, V. R., Stremmel, A. J., & Hill, L. T.

(Eds.) (2002). *Teaching and learning: Collaborative exploration of the Reggio*

approach (pp.83-94). Upper Saddle River, N.J: Merrill/Prentice Hall

Hill, L., Stremmel, A.J., & Fu, V. R. (2005). *Teaching as inquiry: Rethinking curriculum*

in early childhood curriculum. New York: Allyn & Bacon

Hong, S. B., Forman, G.E, & (2000).What constitutes a good documentation panel and

how to achieve it? *Canadian Children*, 30(2), 26-39.

Kagan,D.M .(1992). Implications of research on teacher belief. *Educational Psychology,*

27(1), 65-90.

Katz, L. & Chard, S. (1989). *Engaging children's minds: The project approach.* New

Jersey: Ablex.

Katz, L. (1996). Child development knowledge and teacher preparation: Confronting

assumptions. *Early Childhood Research Quarterly, 11*, 135-146.

Kennedy, M. (1997). *Defining the ideal teacher education program.* [mimeo],

Washington, D.C: National Council for the Accreditation of Teacher Education.

Kocher, L. (2000). The rabbit habitat—documenting a kindergarten project. *Canadian Children, 24 (2)*, 15-22.

Malaguzzi, L. (1998). History, ideas and basic philosophy. In C. Edwards, L. Gandini, & G. Forman (Eds.), *The hundred languages of children: The Reggio Emilia approach-advanced reflections* (2nd ed., pp. 49-97). Greenwich, CT: Ablex.

Malaguzzi, L. (1993). History, ideas and basic philosophy. In C. Edwards, L. Gandini, & G.Forman (Eds.), *The hundred languages of children: The Reggio Emilia approach to early childhood education* (pp.32-60). Norwood, NJ: Ablex.

McAninch, A. (1993). *Teacher thinking and the case method.* New York: Teachers College Press.

McMullen, M. B., & Alat, K. (2002). Education matters in the nurturing of the beliefs of preschool caregivers and teachers. *Early Childhood Research and Practice 4 (2),* 1-22.

Newman , J.(1991). *Interwoven Conversations: Learning and Teaching Through Critical Reflection.* Toronto: Ontario Institute for Studies in Education Press.

Nimmo, J. (1998). *The child in community: Constraints from the early childhood lore.* In C. Edwards, L. Gandini, & G. Forman (Eds), *The hundred languages of children : The Reggio Emilia Approach-advanced reflections* (2nd ed., pp.295-31). Stanford, CT: Ablex.

Pajares, M. F. (1992). Teachers' beliefs and educational research: Cleaning up a messy construct. *Review of Educational Research, 62*(3), 307-332.

Project Zero and Reggio Children. (2001). *Making Learning Visible: Children as Individual and Group Learners.* Reggio Emilia, Italy: Reggio Children.

Project Zero, Cambridgeport Children's Center, Cambridgeport School, Ezra H. Baker

    School, & John Simpkins School. (2003). *Making Teaching Visible: Documenting*

    Individual and Group Learning as Professional Development. Cambridge, MA:

    Project Zero.

Raths, J. (2001). Teachers' beliefs and teaching beliefs. *Early Childhood Research and*

    Practice, 3 (1).

Richardson,V., & Placier, P. (2001). Teacher change. In V. Richardson, *Handbook of*

    research on teaching (4th ed., pp. 905-947). Washington: American Educational

    Research Association.

Rinaldi, C. (1998). Projected curriculum constructed through documentation

    Progettazione: An interview with Lella Gandini. In C. Edwards, L. Gandini, & G.

    Forman (Eds.), *The hundred languages of children: the Reggio Emilia*

    Approach—advanced reflections (2nd ed., pp. 113-125).Greenwich, CT: Ablex.

Rinaldi, C. (2001). Children, documentation and assessment: What is the relationship? In

    Project Zero and Reggio Children, *Making learning visible: Children as*

    individual and group learners (pp.78-90), Reggio Emilia, Italy: Reggio Children.

Rinaldi, C. (2003). The pedagogy of listening: The listening perspective from Reggio

    Emilia. *Innovations in Early Education: The International Reggio Exchange,*

    Merrill-Palmer Institute,Wayne State University.

Rinaldi, C. (2003) Teacher as researcher. *Innovations in Early Education: The*

    International Reggio Exchange, Merrill-Palmer Institute, Wayne State University.

Rogoff, B. (1989). *Apprenticeship in thinking: Cognitive development in social context.*

    New York: Oxford University Press.

Rokeach, M. (1968). *Beliefs, attitudes, and values*. San Francisco: Jossy- Bass.

Scanlan, J. M., Care, W. D., & Udod, S. (2002). Unraveling the unknowns of reflection in classroom reflection. *Journal of Advanced Nursing, 38*(2), 126-144.

Schön, Donald.(1983). *The reflective practitioner: How professionals think in action*. New York: Basic Books.

Stedman, P. H. (1991). 'On the relations between seeing, interpreting and knowing'. In F. Steier (Ed.) *Research and Reflexivity* (pp.13-28). London: Sage.

Stremmel, A. J. (2002). The cultural constructions of childhood: U.S. and Reggio perspectives. In V. R., Fu, A. J. Stremmel, & L. T. Hill (Eds.), *Teaching and learning: Collaborative exploration of the Reggio approach* (pp.37-49). Upper Saddle River, N.J: Merrill/Prentice Hall.

Swick, K. J, Da Ros, D., & Pavia, L. (1998). Inquiry as key to early childhood teacher education. *Childhood Education, 75*(2), 66-76.

Tatto, M. T. (1998). The influence of teacher education on teacher's beliefs about purpose of education, roles and classroom practices. *Journal of Teacher Education, 51*(2), 113-122.

Tegano,D.(2002) Passion and the art of teaching. In Fu,V.R., Stremmel,A.J., & Hill,L.T. (Eds.) Teaching *and learning: Collaborative exploration of the Reggio approach (pp.161-179)* .Upper Saddle River, N.J: Merrill/Prentice Hall.

Vygotsky, L. S. (1986). *Thought and language*. Cambridge, MA: MIT Press. (Original work published in 1934)

Wein,C.(1995). Developmentally Appropriate Practice in 'Real Life': Stories of teacher practical knowledge. New York: Teachers College Press

Wertsch, J. V. (Ed.). (1985). *Culture, communication, and cognition.* Cambridge University Press.

Witcher,A.,& Travers,P. (1999). Witcher-Travers Survey of Educational Beliefs. [On Line]. Retrieved August 18, 2006.

Woolfolk Hoy ,A., & Murphy,P.K .(2001) Teaching educational psychology to the implicit mind. In R Sternberg and B. Torff (Eds.) *Understanding and teaching the implicit* mind (pp.145-185).Mahwah, N.J: Lawrence Erbaum.

Zeichner, K., & Tabachnick, B. (1981). Are the effects of university teacher education 'washed out' by school experience? *Journal of Teacher Education, 32*(3), 7-11.

Appendix A

Consent Form to Participate in Research

Appendix A

Consent Form to Participate in Research

Dear Students,

This semester a study will be conducted to examine the role of documentation in shaping preservice teachers beliefs and attitudes regarding children. To complete this study, you will be asked to participate in the following exercises:

a) To complete a questionnaires regarding your understanding of documentation.
b) To answer 3 short answer essay questions on your beliefs and attitudes towards children.
c) To complete a documentation panel (non graded) and write a short one page reflection on the process of engaging in the process of documentation.
d) To participate in a focus group on the topic of documentation.

As per the university guidelines for conducting research it is necessary to obtain written permission from the participants. Please note that you are not required to participate in this study and that, should you choose to participate you are free to drop out of the study at any time without penalty by contacting Cathy Mott at 848-2045 or through email a c_mott@education.ca. Your participation or non participation will not affect your course grade in any form. Throughout the study confidentiality and anonymity will be assured as real name will not be used in any publication or presentation of the findings and participant will not be identified.

Cathy Mott
January 6, 2003

I HAVE READ THE ABOVE AN UNDERSTAND THE NATURE AND THE CONDITIONS OF THIS STUDY AND AM AWARE THAT CHOULD I WISH TO WITHDRAW FROM THE STUDY I CAN DO SO MY INFORMING THE RESEARCHER.

_____Yes, I am willing to participate   _____ No, I am unwilling to participate

YOUR NAME: _____ (please print) SIGNATURE: _____

WITNESS SIGNATURE: _____

Appendix B

Pre-Study Questionnaire and Responses

Appendix B

Pre-Study Questionnaire and responses on Documentation

Question 1: How would you define documentation?

Participant Number	Response
1	Writing down information about the children. Taking time to observe the different developmental levels of the children in the classroom
2	Observe the kids making curriculum in that do activities and then evaluate.
3	Means some written programs or subject from which people can have the opportunity to learn something
4	By observations of the children we can document and plan activities and find out what parts the children were interested in.
5	Recording something
6	Writing down information about children –how they socialize and play.
7	I think it means writing down the important points that you observe
8	Writing down observations which you have observed to get a birds eye view of your groups intellectual capabilities and what you can do to help improve your program to suite your needs and the needs of your group.
9	Write ideas down on paper
10.	Documentation is the useful information gathered to use later for a purpose or a goal.
11	Something that I visually save and gather information.
12	A kind of keeping a record or information on something
13	It would be a journal written by someone else about a subject or observation.
14	Lets the parents know how the child is doing,
15	Writing information .gathering information
16	A method of recording information in an organized manner

Question 2: How is documentation useful to teachers?

Participant Number	Response
1	It is important to know the interests of children. It can help the teachers and directors prepare the curriculum and deal with children.
2	Observe kids interest and produce new activities.
3	Because it is one of the best ways to present something
4	It provides each individual's development in many areas and each child's interest and strengths.
5	What has been done in the past.
6	How the child is progressing. What level the child is.
7	For parents it is important to know what is going on in the class and what their child is doing there.
8	For teachers to help children reach slightly beyond their abilities. For children-it can make them feel proud of what they have achieved.
9	Helps follow improvement and progress of the individual
10	With the gathered information the teachers have more knowledge and can assess solutions and difficulties. Can help you work with parents to solve problems
11	Important to document the action to see if anyone can change the negative behavior ex. biting ,hitting
12	Can be used as communication between home environment and the classroom environment.
13	To discuss and exchange ideas. Give each other knew ideas. It is a point of reference that they can learn from.
14	Gets the parents, children and teachers attention.
15	To follow the process that the center goes through.
16	It helps to remember events , methods, thoughts and ideas that otherwise might have been washed away by the ways of time

Question 3: What aspects of the class do you think teachers should document?

Participant	Response
1	write down their observations, take pictures, recording their conversations
2	Not really sure. I believe if we look at child development we can look at the different domains of development.
3	the teacher should document to help everybody to recognize social, emotional, cognitive reflexes.
4	Observations and children reactions.
5	Keeping record of what they did.
6	Games, puzzles, how they play in the dress up area, role play
7	Activities that transpire in the class
8	Take photos of the children's work and their projects.
9	Activities and worksheets the children have completed.
10	Any classroom activity and special events.
11	Behaviors that are difficult, activities, fun events
12	Writing in children's journals, children's artwork, taking pictures. A written record of observations of the learning experiences.
13	Whenever there is a change or a new child or new year.
14	States each child's interest and register his whole day.
15	Children's art projects-make them visually available.
16	I would document comment of children that I find important for their future. I'd record activated that the children engage in and ideas they come up with as well as remarks they have made about their art works.

Summary:
Activities that transpire in the classroom (6)
Observations (3)
Recording conversations (2)
Child development –domains of development (2)
Children's work and projects (2)
Special events (2)
Children artwork (2)
Taking pictures (2)
Difficult behavior (1)
Children journals (1)
Children's interests (1)

Appendix C: Pre-and Post Study Essay Questions

Appendix C: Pre and Post -Study Essay Questions

Pre and Post Questionnaire

In this essay students are asked to reflect on their views of children. Begin your essay with a brief description of your cultural and family background and your early learning experiences. Following this address these three questions:

1) What are some adjectives you would use to describe a child?
2) What does "educating a child" really mean?
3) What is the role of the adult/teacher in the classroom?

Appendix D: Responses to Question 1 on Pre-and Post Study Essays

Appendix D: Responses to Question 1 on Pre and Post- Study Essays

Question 1: What are some adjectives you would use to describe a child?

Participant Number	Age	Ethnicity	Pre-essay	Post essay	Changes in views
1	23	Mixed race	Honest, busy, playful ,cute, spirited, emotional	Reactive explorer. questioning unique, creative, intelligent	Romantic **to** Progressive
2	22	Greek	Lively, innocent, lovable, emotional , growing , whiney, ,vulnerable	Curious, affectionate, energetic, intelligent, savvy, adaptable, spontaneous	Romantic **to** Progressive
3	20	Canadian	Happy, bossy, smiley, cute egotistical	Spirited, curious, vulnerable,	Slight shift
4	24	Italian	Innocent, honest, impressionable , enjoyable, open-minded, dependent	Observant, inquisitive Eager to learn, imaginative passionate, playful, caring	Romantic/ Trainer **to** Progressive
5	34	Italian	Active, curious, talkative , playful, naive imaginative , creative, affectionate, funny, loving excitable, emotional	Curious, playful, sociable, blunt, explorer , open to suggestions, motivated	Shift away from Romantic view
6	35	African American	Lovable, smart, witty, clever ,jewels, bold likeable, enjoyable, innocent, destructive, jealous, truthful	Active, bright, loving, joyful, extraordinary, authentic, innocent, perceptive	Slight shift
7	21	Italian	Curious ,cute	Powerful	Slight Shift

111

			adventurous happy, wonderful ,special interesting	intelligent ,spontaneous, smart, imaginative strong , joyful,	**to** Postmodern
8	20	French Canadian	Full of life, curious, devoid of cynicism, distinct personalities, need limits, delicate clay, sweet, affectionate	Resilient, observant creative, caring, teach us about ourselves, inspiring ,extraordinary	Moved **to** a more Postmodern
9	24	Algonquin	Adventurous, hyper, energetic, little people, beautiful, cute,	Explorers, developing questioning, curious, friendly, delightful	Romantic and Evil **to** Romantic & Progressive
10	22	Algonquin	Fun, small, cute, smart challenging intelligent interesting, disobedient	Loveable, smart, silly, precious, capable	Shift **to** a more Romantic view with the inclusion of one Postmodern term
11	24	Italian	Creative, innocent, flamboyant, excited, explorer ,positive, funny, loving ,affectionate	Sensitive, shy, empathetic , happy ,funny, resourceful, unique	Slight shift - Less of a Trainer view
12	19	Israeli	Pure ,honest about emotions, happy	explorer scientist, trusting, competent, creative	Shift from Romantic **to** Interactive
13	22	British	Fearless, ready to learn ,shy, little people	Curious, creative , helpful, dynamic., smart.	Shift **to** More Interactive
14	25	Canadian	Honest, real, challenging, unmotivated	Active ,inspired curious, creative, playful smart	Romantic – Trainer **to** more

					Progressive
15	20	French Canadian	Innocent, cute, sweet, naïve ,energetic, excited to discover	Go-getter, questioning, sensitive, good-natured, playful, inquisitive, energetic.	No change
16	25	Hungarian	Spontaneous ,innocent, naïve, emotional, challenging ,pure, fragile.	Receptive, imaginative, inquisitive, intuitive , emotional, observant, free, pearls	Shift from Romantic/ Trainer **to** More progressive

Appendix E

Frequency Counts for Question 1 on Pre and Post Study Essays

Frequency Count for Question 1 on Pre and Post Essay Essays

Adjective	Pre Study Questionnaire	Post Study Questionnaire
cute	6	0
innocent	6	1
emotional	4	1
curious	3	6
pure	2	1
affectionate	3	3
honest	3	0
imaginative	1	4
creative	2	3
challenging	2	0
enjoyable	2	0
loving	2	1
intelligent	1	3
observant	0	3
impressionable	1	0
sensitive	0	2
happy	3	1
whiney	1	0
bossy	1	0
smiley	1	0
vulnerable	1	1
motivated	0	1
explorer	1	4
dependent	1	0
lovable	1	0
lively	1	0
spirited	1	0
inspiring	0	1
playful	2	4
busy	1	0
egotistical	1	0
fun	1	0
open-minded	1	0
small	2	1
surprising	1	0
smart	1	2
need motivation	1	0
energetic	1	0
having ideas	1	0
naïve	2	0

sweet	1	0
funny	2	0
caring	1	2
active	2	1
egocentric	1	0
ready to learn	1	0
interactive	1	0
authentic	0	2
disobedient	1	0
adaptable.	0	1
flamboyant	1	0
excited	1	0
positive	1	0
adventurous	2	0
spontaneous	1	1
fragile,	1	0
loving	1	0
hyper,	1	0
need limits	1	0
delicate clay	1	0
devoid of cynicism	1	0
impressionable	1	0
wonderful	1	0
special	1	0
little people,	1	0
distinct personalities	1	0
strong	0	1
reactive	1	0
sweet	1	0
full of life	1	0
beautiful	1	1
talkative	1	0
wise	0	1
passionate	0	1
open to suggestions	0	1
eager	0	1
joyful	0	1
extraordinary	0	1
bright	0	1
clever	0	1
inquisitive	0	1
caring	1	1
sociable	0	1
blunt	0	1
teach us about ourselves	0	1

resilient	0	1
perceptive	0	1
truthful	0	1
friendly	0	1
forgiving,	0	1
terrific	0	1
scientist	0	1
questioning	0	1
developing	0	1
a light for humanity	0	1
capable of understanding things you wouldn't expect	0	1
precious	0	1
delightful	0	1
resourceful	0	1
happy	2	0
simple	0	1
competent	0	1
unique	0	1
understanding	0	1
knowledgeable	0	1
care-free	0	1
pearls	0	1
trusting	0	1
empathetic	0	1
receptive	0	1
free	0	1
intuitive	0	1
good-natured	0	1
go-getter	0	1
shy	0	1
silly	0	1
smarter than you think	0	1
growing	1	0
inspiring	0	1

Appendix F: Reponses to Question 2 on Pre- and Post Study Essays

Appendix F: Reponses to Question 2 on Pre-and Post-Essays

Question #2: What does "educating a child really mean?

Participant Number	Pre - Study	Post-Study	Changes in Views
1	-educating a child really means to teach a child -to create an environment where children teach themselves -create a safe place where children learn freely - to help children learn to respect one another -educator's must be patient ,empathetic and supportive -to be non-judgmental -to be an example	- it means learning with them -guiding them and giving them the freedom and skills to pursue their inquiries -it means being able to nurture as well as step back -it means thinking and reflecting, making connections -it means being able to step back and view the child in a holistic way and to provide challenges that allow opportunity for the individual child to develop in areas. - to promote creativity , curiosity ,and freedom of thought	Shifted **to** a more reciprocal model
2	-to pass on knowledge of the world -to teach them the skills , and attitudes necessary to their well-being in the future -to teach conflict resolution and respect towards each other and life -guiding them to adopt points of view and attitudes - to teach reading ,writing, art storytelling ,drama, geography - guiding the child to	-a child learns and grows no matter what .It means we make the process easier for him -to provide time for play. -to pay attention to the children	Little shift-less trainer views

119

	become a good citizen of the world		
3	-teaching the child life long skills that will use in the future not just teaching reading and writing -teach or refine social skills that are taught at home -to teach respect to their students and the difference between right and wrong as well as other moral issues	-to guide the children in the right direction -to facilitate learning and give the children opportunities to learn	No change
4	- to help mould them and to better prepare them for the challenges of the world. - giving them all the knowledge he/she needs to understand the cope with society. -help them when they inquire about things that are not familiar to them. - preparing them to be functional members in "the real world." -Teaching and refining social skills -teaching them to be polite and get along	-to guide them on the path of life -teaching them the basics of academics -helping them socially and spiritually -building foundations for life -to ask questions to understand their thoughts. - to lead them to new experiences and connect to old ones	Little change- Less trainer views
5	-providing guidance and direction in order to help them reach their potential -there are many paths in life and in order to make appropriate choices children need to educated	-to enable them to develop their potential and become a successful member of society - guiding -providing guidance to enable the child to discover new concepts and develop new skills	Shift from Trainer view **to** more of a developmental and Interactive

6	-guiding them towards new corridors of knowledge in a gentle and sensitive manner, -the child must be ready at a stage -need to nurture their needs and their minds - it involves teaching them about right and wrong -giving them liberties to try things on their own	-to introduce children to many aspects of the world and letting them discover on their own things that are meaningful to them -it means responding to their needs and providing a good environment for learning to occur -it takes into account their diversity and requires flexibility in one's approach -supporting their inquisitive natures	Developmental view **to** Interactive
7	-allowing the child to be involved in his or her learning experiences -letting the child explore the world through play -giving them a push in the right direction	-facilitating a child's learning experience by teaching hands – on concrete activities to enhance their learning experience and skills -allowing them to actively participate in their own learning process -observing children from a distance and allowing them to discover the world through play	Less of a trainer view and more of a Developmental and Interactive
8	-to teach and provide the child with all the knowledge he needs to understand and cope with the environment , society etc-to teach them how everyone needs to be respected -to prepare them to be functional members in "the real world"	-to support learning by providing educational experiences in which he can obtain useful knowledge -helping the child improve in areas where he/she lacks knowledge respecting the child through listening and caring -answering a child's curiosity by giving answers to questions that she/he may have is very important	Little change – less of a trainer view

9	-means allowing for growth and learning of the whole child , across all developmental domains - providing guidance academically and socially -helping them with their school work - completing assessments	-giving the child meaningful experiences that allow developmental and personal growth -creating an atmosphere conducive to exploration creativity and emotional expression	Developmental **to** more Interactive
10	-to teach the basics and also morals , values and social behaviors -preparing them for the next developmental steps that they have to take -you need to accommodate their needs -providing hands on experience	-to be caring , trusted - to encourage exploration and creativity and praise in a meaningful way -to add and build on what they already know. -encourage them to go farther in their interest	Slightly more interactive
11	-to help and assist the child in learning -letting the child explore and take control of their own learning experience	-means to create an environment that will peak their curiosity in wanting to learn more	No change
12	-providing useful learning tools so that they can succeed in the future -to provide positive reinforcement to raise a child's self-esteem -to motivate them to work harder -to work on a child's difficulties	-providing the child with ability to develop as a unique and whole person allowing them to discover the world around them -they should be able to be a well rounded individual	Moved **to a** more interactive
13	-giving him the opportunities -educating is not	-means leading him to go further -to improve all kinds of skill	Shift from interactive to

	reduced to bringing the child to acquire knowledge but it is also guiding them through experiences to learn how to deal with all kinds of situations in constructive ways	-guiding the child on a good track	Age stage /trainer
14	-Giving children tools to learn, - giving them space in order to create, - to tap into children's ideas and thoughts , -discover a child's individual way of learning , and adapt information and curriculum to fit each one, -to try and help each student reach their personal best by facilitating goal setting and ways of attending them, -to help a child feel good about themselves	-facilitating their learning so they can discover the world around them -making learning meaningful and enjoyable - to provide children with a variety of materials for them to discover .	Moved **to** a more Interactive
15	-providing the child with a rich environment filled with experiences that allow the child to develop and grow to their own potential -If the child is not ready at a stage where they cannot grasp certain information. - Need to nurture their needs and their	-providing him with experiences that teach him skills and help him appreciates the exciting world that surrounds them. - to take time ,pay attention, listen	slight shift

	minds -the environment should provide choices and freedom to grow and succeed		
16	-the role of the teacher is to guide the child and develop an appreciation of knowledge. -introducing the child to the wonders of life and new information -showing them around without forcing your opinion and ideas on them	-most importantly providing diverse ideas and opinions from various angles are important aspects of education to me -to provide opportunities for children to experiment	Developmental **to** Interactive and reciprocal

Appendix G: Reponses to Question 3 on Pre- and Post- Study Essays

Appendix G: Reponses to Question 3 on Pre- and Post-Essays

Question #3: What is the role of the adult /teacher in the classroom?

Participant Number	Pre Study	Post Study	Shift in Views
1	-we are there to help them get along with others. -To develop a well rounded person -To model specific behaviors and to discipline when necessary	-we are like conductors of an orchestra. We must never forget that students are musicians that make their own beautiful music alone, with others and one day without our help -nurturer , guide , facilitator ,observer , participant , role model , friend, skill provider , thought provoker , material provider , self-esteem booster -teachers need to have many different skills in order to be successful at their job. Children are complex beings	Trainer & Developmental <u>to</u> More progressive
2	-to provide the best circumstances for the child to reach his potential -the adult should be there to care for them ,nourish them and protect them -providing the least restrictive environment for growth	-to be a facilitator ,to help the child in his/her explorations and interaction with the environment -the role model of desirable and safe behavior	Inconclusive
3.	- to provide students with a support system - to assist the children with their academics -to establish a trusting relationship with students -needs to establish rules	-is to facilitate the learner and to intervene when needed -to act as a role model and take the role of being a leader and authority	No change

	and consequences on order to maintain control of the group ,but also to prepare children for the future		
4	-is to teach children values, rules and everything that is needed to function well and properly in society -Teach them skills and useful things they do not already know. - Teachers are supposed to provide the students with the rules and regulations that are to be followed and respected. - Teachers should be regarded as a positive model and friend to his or her students. Children can imitate their behaviors. -teachers should provide students with feedback about their progression of lack of, in order to know where they stand.	-is to guide the children in the right direction -to give the children opportunities to learn -to ask stimulating questions - to provide interesting materials that stimulate children's thinking -to lead them to have new experiences and help think through those experiences - to provide various easy of exploring the topic or concept	Trainer & Developmental **to** More Reciprocal view
5	-to be a role model for behaviors that are important and necessary for the children to learn if they are going to grow and develop -guides the children by providing encouragement and direction - an active participant in children's socialization -the teacher provides the basic instruction and the child builds upon these building blocks as they	-to be a facilitator -someone who guides and enables children's learning focusing on their interests and encouraging their strengths -role model -the teacher should be a partner/guide for the child rather than an authority to the child they should build a caring environment -he observes to plan to	Trainer and developmental **to** More interactive and Reciprocal

	progress through school	foster the children's interests	
6	-to guide the children -this may involve stepping up and teaching the children something they do not know, or building on things they know -sometimes stepping back and letting the children explore -provide a learning and nurturing environment	-to guide and facilitate the child's learning and help them in this process - to be present during their processes- an enabler - to find out their passions and build on them	Developmental and Interactive **to** More Reciprocal
7	-a guiding role -ready to facilitate rather than initiate -take more of a constructive role where she takes clues from the children to guide her lesson -to plan classroom activities and that their should be routine and rules ,but children should be involved cooperatively in this process	-to facilitate the learning process for children rather than directly telling the children what and how to do things -to become skilful observers of the children's play to help us learn more about how children learn	Interactive and Developmental **to** Interactive & Reciprocal
8	- to open the door for knowledge - it is also about being reliable , patient -to encourage exploration and to show the child it is okay to make mistakes and try new things - to be the pillar of knowledge , got the student to use as a resource at his disposal.	- facilitate meaningful experiences for children -the teacher guides the children but is also guided by the children - a journey of self-discovery for the teacher and the child - a form of growth not to be taken lightly. Children have better ideas than teachers!	Shift from Developmental and Interactive **to** more Reciprocal model

9	-the role of the teacher is to teach and to provide a safe environment for the children -encourage and be a positive communicator -be patient ,loving and understanding -ensure safety	-to facilitate development -teachers need to set routines ,provide consistency within the class -respect the child and be patient	Shift from protector **to** Trainer and developmental, interactive
10	-caring role model even after school hours -makes decisions -to be able to assess what level their at. -to teach children values and rules, and everything that is needed to function well and properly in society	-to be the responsible ,safe individual - to support the child in all aspects -to model appropriate behavior for the child -teach cultural diversity and language -to help the child feel proud of themselves and build self-esteem	Shift from more Romantic and Trainer model **to** More developmental
11	-to be their as guide in creating positive and effective experiences for the children	-to guide rather than direct -guide students through their exploration of their environment	No shift
12	-primarily one of a facilitator and a role model -a keen observer . -to be flexible in her thinking -to be loving open and prepared	-facilitator of learning - a resource to the children and parents -part of the community of learners	Slight shift

13	-to guide the children -to give them a path to follow -to model behavior that is appropriate for a classroom or outside a classroom -to teach children about life experience ,what the future might hold -to teach children a curriculum full of math ,science, language arts etc.	-a monitor, a guide -set students on the right path -support students and give them confidence	Shift to more Romantic view
14	-to set an example and to be aware of the messages they are sending -to guide children's learning and encourage their whole development	-is a resource for children to learn or get help - to bring in new things to find out about , to explore to learn from together -To promote respect, creativity and freedom of thought	Shift from trainer & Developmental model **to** Interactive & Reciprocal
15	-teacher's mission should be to build up the child and establish the right foundations for growth - flexibility to accommodate unexpected situations - to establish a healthy and stable learning environment	-supervising the children in their learning (for safety reasons) without always interfering -guiding them to use problem solving strategies -to be a good role model	No change
16	-depends on the age group and number of children as well as the nature of the class and to provide them a wide range of skills -caring sensitive guidance is expected from the educator	-the adult is a guide, facilitating the children to make connections that will help them understand or make sense of what is going on in their world - I have modified my ideas in that I really see	Shift from Primarily Development model **to** Reciprocal model

	-to nurture critical thinking to promote interaction between children and the educator or between the students -give children the opportunity to learn about different topics - to open the door for children and bring them to know more about the world and give them tools that will help them	how teachers are supposed to present materials in a way that students can create their own learning and make connections that make sense to them.	

Appendix H

Reflection Responses to Question 1 after Engaging in the Documentation Process

Appendix H: Reflection Responses to Question 1 on Reflection after Engaging in the

Documentation Process

Question 1: How has the panel making assignment influenced your thinking about children and teaching?

Coding schemes

A. Reflection
B. Observation
C. Slowing down
D. Activities
E. Role of the Teacher
F. Understanding Children
G. Children Competence
H. Assessment
I. A Means of Communication

Reflection

Participant Number	Responses
1	It really helped me see teaching as both a learning and reflective experience
6	It helpers me reflect on my skills and how I could improve my relationship with children
7	Because the panel gave me something to look back on, I was better able to reflect on my abilities as a teacher. I was able to consider aspects of the activity I'd like to revisit. I was also able to think of how I could better guide the children in their learning.
8	I think that it is very important because as a teacher I will constantly be assessing my students and my own work. Panels can allow teachers to reflect and really analyze what is actually occurring. By making this panel I realized how valuable the process of documentation really is for personal growth and learning
2	Making this panel allowed me to reflect on things that I learned throughout the activity plans.
9	I enjoyed making the panel and it allowed me to take a look at myself as both a person and a future teacher.

Observation

Participant Number	Response
1	I now feel more prone to stop, and observe children they play
5	It made me more critical and analytical especially in terms of linking

	my observations and interpretations to theory
4	This assignment allowed me to witness and observe young minds at work
8	Documentation helps perfect the strategy of observing children authentically and in an environment of play, exploration and discovery!
6	The panel allowed me to really focus and take note of the process that the children applied in their activity. I was able to pay close attention to the comments children made as they worked, because I was more able to step back and observe.

Slowing down

Participant	
7	Making the panel has also made me think more about "capturing the moment." It reminded me as a teacher to slow down and not to be so scheduled
13	The panel helped me pay more attention to what children say and do and take my time.

Activities

Participant Number	Responses
1	Gave me the opportunity to step back and reflect on the experiences the children have/ and look at them from another angle. It in a sense helped me focus on the internal drive and motivation that is the utmost importance.
2	I came into the program pretty confident having worked in the schools for a long time and now I am uncertain about a lot of things. I am questioning everything I do but I think that it good
5	The documentation panel helped me focus more on what the objectives of my activity for my activity were, and how they were met.
8	I found that this type of assignment helped me organize and plan a more child centered activity catering to the needs and interest of the child.
8	By paying attention to the children teachers are really able to observe and plan accordingly to the interests of the students.
9	As I was making this panel and reflecting on got to really understand that process is more important than the product
10	When doing the panel, I realized the different things children would say during an activity. Because of this I was better able at keeping the children's interest because it was more authentic
11	This method can help me determine other learning experiences that could encourage children to explore.
15	Children engaged in educative activities that follow in the stream of their interests, are more likely to get engaged in the project.
16	I realized that my initial planning was not very meaningful. The voice recorder proved to be a useful tool. It really helped me just

	listen to the children

Role of the teacher

Participant Number	Responses
6	Creating the documentation panel made me more conscious of the role I played as a teacher.
4	This experience has lead me to understand that teachers do not necessarily have to interfere or direct activities
9	I learned how to become more flexible with activities and taking children's feeling into consideration
10	As a teacher it helped me provide a more in-depth curriculum
11	I believe actually making a documentation panel for the first time, has taught me that teaching can take may different forms also, that I do not have to be the source of the child's learning. Rather they can learn through their play, and through interaction.
14	While thinking about my panel I have realized why I love the field of education. Learning is exciting! Teaching has become all about the children's learning processes now, which is an amazing route to travel!
15	It was obvious when teachers are flexible, the activity can take the class on an unexpected route that gives new insight and opportunity for all those indirectly or directly involved.

Understanding children

Participant Number	Responses
2	to be more aware about the things children learn during the activities that I plan.
4	I learned that children really learn a lot more "by doing" that simply "just listening about it."
7	It prompted me to look deeper into the children's learning. I looked at the photos of the children working and their responses to questions their machines to see what they valued and cared about. At first, I thought that they only arranged materials in a manner that was pleasing to them, but there was much deeper thought involved. I noticed that they learned about engineering concepts that I hadn't even considered when designing the activity.
8	The process helped me understand how children make sense of what they learned and it also allowed me to see individual differences
6	The documentation panel provided me with an indication of the child's thoughts, understandings, misunderstandings, ideas and expressions
13	It also made me realize how children all approach learning differently. By looking at their reactions you can see how excited an interested in learning

Children's competence

Participant	Responses

135

Number	
1	It allowed me to get an idea of the children's strengths and accomplishments during play, dialogue and inquiry.
3	More can be learned about a child from the questions they ask than through the answers they give.
6	The panel provided me with a better understanding of the children's capabilities and interests as well. It was the live version of CHILD DEVELOPMENT
15	The panels enabled us to reflect on the children's thinking process. I was surprised at the wonderful problem solving skills that were displayed among the children

Assessment

Participant Number	Responses
3	This type of evaluation is a much better measure of a child's development and potential than formal assessments
12	I do no longer feel the pressure to evaluate children according to letter grades, instead with the use of a documentation panel, I can observe and document the child's learning and use their findings to determine what the child knows, or is questioning asking about
15	As a future educator, this is one way of recording the developmental skills that children are showing

As a means of communicating

Participant Number	Responses
4	I learned that documentation is a very good way to demonstrate the learning process of children to others.
5	It also allowed me to present a visual picture of an experience I enjoyed and the children also enjoyed.
12	The panels are a wonderful source for children, teachers and parents to see the learning process in action and feel a sense of connection
13	It is also a wonderful way to show the parents what the class has been up to.

Appendix I: Reflection Responses to Question 2 after Engaging in the

Documentation Process

Appendix I: Reflection Responses to Question 2 after Engaging in the

Documentation Process

Question 2 **Was it useful to look at other student panels? If so ,in which way?**

Coding Scheme:

    A. Yes
    B. Perspective Taking
    C. Children's Competence
    D. The Process of Documentation
    E. Curriculum
    F. A Means of Communication
    G. Other

YES

Participant	
1	It was extremely useful to look at others documentation
2	Yes, first It was inspiring to see how classmates were able to follow children's ideas
6	It was nice to see my classmate's hard work and ideas on display. It was a form of support for me to see their work
7	It was interesting to see other student's panels because they focused on different aspects of their activities.
10	Yes, the most interesting part was reading the panels and the process that was taken
11	Certainly. I have a new respect for some of the work that teachers do.
12	Yes, I found the panels insightful and inspiring. They inspired me to look closer and children's ideas and motivation
13	The panels were useful in that it allows you to see each others different teaching styles
14	Absolutely, I always learn from seeing the approach that other people take.
15	Yes, because everyone's panel was unique and gave us a chance to have a new perspective and how panels can be displayed.

Perspective Taking

Participant	
1	It helped me to see that there are different ways of doing things.
4	Seeing other panels gave me ideas for the future. It showed me different approaches.
5	It was also interesting to see the different perspectives that students have in regards to young children's learning.
6	I also enjoyed the types of investigations that other students did with the children and how the children responded. It motivated me to take a risk and try new things with the children
13	It proves that there are many ways to teach depending on your values. You realize that there is no right or wrong ways in creating your panel.
14	Absolutely, I always learn from seeing the approach that other people take. I also realized that I would have interpreted the same incident very differently. It helps when someone can explain their thinking.

Children's competence

Participant	
4	I was also able to see what children think about and create using their imagination. I noticed that when even given very simple materials such as boxes or marbles, they can invent very creative projects.
4	Most of all, I enjoyed observing that it was the children who led the activities with their spontaneous thinking
9	It is interesting to compare and find out about children's development. I didn't realize that three year olds could do so much.
16	I have a new appreciation for children. I never thought that they were so capable. When I look at the activities I provided most of them were pretty lame.

The Process of Documenation

Participant	
2	To see different kinds of documentation panels, to see what my peers chose to display. It was interesting to see the format or steps they chose to lay out the documentation.
6	I liked seeing the different approach that others took when creating their panels.
16	It was interesting to see the creativity in the actual panel making. I also think that the style of the experiences planned seemed to reflect the student

Curriculum

Participant	
2	It was inspiring to see how classmates were able to follow children's ideas. I also got some good ideas to try out with my group.
4	It gave me many ideas that I can possibly use in the future while working with children. From the panels. I also learned the expected final result of activities is not what usually turns out because children's creativity can lead procedures in different directions.
5	It was interesting to see the different activities other students implemented with their children
6	I got to see the children engaged in so many wonderful activities.
8	The variety and wealth of ideas and the conversations of children were amazing.
10	It gave me great ideas for new activities.
3	Some students were so capable of bringing out children's ideas.
11	It is always interesting to see how children perceive an experience
14	It gave me ideas of for the future and also helped me better understand children's development.

As a means of communication

Participant	
3	It was really great to have the chance to see what sorts of things were going on in other centers. As a parent, I would be grateful that these panels were displayed at my child's daycare center.

Other

Participant	
3	I saw that my approach to this activity was quite different than the others. I actually questioned at one point, whether what I had chose to document was right. I guess that there is no one right way.
9	It was fun to see how others guide children. There use of questions and their set ups for activities.
10	and how to converse with children. I really struggle with this. Seeing other people and the way they do this with ease helps me try to relax and enjoy the kids.
11	Being able to see beyond the skills-really get at their thoughts
12	I think we all took pride in our attempts to make sense of documentation and could appreciate our peers efforts.
15	Some of the quotes used on panels very thought provoking
16	I have become much more aware of my own learning that had transpired throughout this process

141