A Narrative Journey of Teacher Reflexivity and Authenticity in Technological Environments

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Abstract

This qualitative narrative inquiry was driven by my desire to further explore my personal discovery that my utilization of educational technologies in teaching and learning environments seemed to heighten a sense of creativity, which in turn increased reflective practice and authenticity in my teaching. A narrative inquiry approach was used as it offered the opportunity to uncover the deeper meanings of authenticity and reflection as participants' personal experiences were coconstructed and reconstructed in relationship with me and in relationship to a social milieu. To gain further insight into this potential phenomenon, I engaged in 2 conversational interviews with 2 other teachers from an Ontario College in a large urban centre who have utilized educational technologies in their teaching and learning communities and I maintained a research journal. constructed during the interview process, to record my own emerging narrative accounts, reflections, insights and further questions. The field texts consisted of transcriptions of the interviews and my reflective journal. Research texts were developed as field texts were listened to multiple times and texts were examined for meanings and themes. The educational technologies that both women focused on in the interview were digital video of children as they play, learn and develop and the use of an audible teacher voice in online courses. The invitation given to students to explore and discover meaning in videos of children as they watched them with the teacher seemed to be a catalyst for authenticity and a sense of synergy in the classroom. The power of the audible teacher voice came through as an essential component in online learning environments to offer students a sense of humanness and connection with the teacher. Relationships in both
online and face to face classrooms emerged as a necessary and central component to all teaching and learning communities. The theme of paradox also emerged as participants recognized that educational technologies can be used in ways that enhance creativity, authenticity, reflection and relationships or in ways that hinder these qualities in the teaching and learning community. Knowledge of the common experiences of college educators who utilize educational technologies, specifically digital video of children to educate early childhood educators, might give meaning and insight to inform the practice of other teachers who seek authentic, reflexive practice in the classroom and in online environments.
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CHAPTER ONE: INTRODUCTION

The challenge of integrating educational technologies into real-time classroom environments and the opportunity to develop online courses and to teach in an online environment have served as an invitation for me to explore the creative nature of my teaching and to reflect on my authenticity as an educator. Finding the creativity in my teaching by utilizing opportunities to integrate educational technologies into the teaching and learning communities I share with my students has been a springboard for me. My own narrative accounts and those of the two other teachers shared in this research inquiry might serve as a springboard for other educators to critically examine their teaching methods and theories and the communities within which they teach.

Schön (1983) describes the role of new teaching situations as a "springboard" to inquiry and theory.

By methods and theories fundamental to a practice, I mean those that some practitioners have learned to use as springboards for making sense of new situations which seem, at first glance, not to fit them. In this sense, an overarching theory and generic method of inquiry which is inseparable from it are used to restructure a situation so that, eventually, one can validly say that the theory fits the situation. (pp. 317-318)

This chapter is organized into seven sections, starting with a narrative of my personal background, a discussion of the teaching and learning questions that guide the inquiry, and an explanation of the inquiry framework itself. The inquiry is further described in terms of the underlying principles that inform it and the relevance of the study itself, followed by a summary of the inquiry's assumptions and limitations.
Personal Background

My research stance is greatly affected by my personal experiences within teaching and learning environments and by the philosophical underpinnings of my work, which are shared in the following sections.

A Favourite Book, A Student Remembered

As I was gathering books from my shelf, collecting motivational authors’ critiques of curriculum and education, hoping for inspiration as I began to write my thesis, I discovered a photo of a former student inside one of my favourite books. As I opened the pages of *Dumbing Us Down: The Hidden Curriculum of Compulsory Schooling* by John Taylor Gatto (1992), a picture of Wayne fell out. Wayne had been an international student of mine several years ago as we studied Philosophy of Early Childhood Education together. Wayne was inspired by my thoughts, and I was invigorated by his enthusiasm. He reflected on classes (often on the inside cover of one of his text books), his ideas, and his student teaching. We had many illuminating conversations in class and in my office on those days when he came by to return a book and borrow another. He offered his own perspective of the ideas, thoughts, and knowledge that I had shared with the philosophy class. In turn, his reflections and those of his cohorts altered my own reflections and influenced how I continued to think, reflect, and teach.

The page was marked not only by his picture but also by a small, blank piece of paper. I assumed that he intended for me to make note of the page marked as well as to have a photo to remember him by. I needed no photo; enthusiastic, exuberant, and enlightened students are impossible to forget. Wayne, as an international student, brought thoughts and ideas of a very different culture to class. His hopes and dreams were to return to his
country of origin and make real change by empowering his students with freedom of thought, choice, and ideas that could be used as the tools of change. I soon realized why one particular page of the book had been marked. John Taylor Gatto discusses a trip he made to a community in Dedham, Massachusetts.

Knowing little of Dedham, Massachusetts myself, I looked it up on the internet. I discovered that it is not only the second oldest town in the United States, established in 1635, but seemingly everything and anything I might want to know about the town was on one website, from garbage removal to teaching resources. The history and culture of the town were as impressive as the effort taken to convey as much as possible about the place in one easily accessible, “user-friendly” online environment. I was struck by the irony of finding a website that appeared to serve its purpose well of bringing together a large community of people while I was searching for a way to communicate my own philosophy of teaching and learning in relation to educational technologies. I have a strong belief that the process of teaching and learning is one of connecting within a community of people who are actively and creatively developing an authentic self that is woven into the lives and selves of others. As members of the community share and reflect on their knowledge, often through story or narrative, new concepts, ideas, and perceptions are formed.

The concept of a “community of learners” has been chronicled by Ann Brown (1994, 1997), a psychologist and sociocultural researcher who has studied individual learning strategies and processes. Students and teachers are involved in collaborative forms of inquiry where a classroom becomes “lived culture” and is created based on tacit beliefs and practices that sustain ongoing student inquiry.
The community of learners approach is grounded in the belief that there are many ways to learn and many ways to support learning. No one correct approach to teaching and learning exists, as the community learning model recognizes that each educational philosophy is appropriate for particular needs and specific situations (Miller, 2000).

Being able to touch a community in a virtual way through the Dedham town website made me realize that the ideals of reflexive and authentic teaching explored within technologically enhanced environments present a conflicting paradigm. Educational technologies give educators, at the touch of a button, the power to represent themselves in almost any way they please and to very easily claim the work of others as their own. The medium that gives us so much power to present ourselves as we choose and to access such presentations of others leaves us helpless to distinguish between the authentic and the inauthentic. The state of nature in virtual reality, a nature so entirely comprised of information, forces us to be uncertain about the truth. (Herman & Mandell, 2000, para. 14)

Technologically enhanced educational environments might seem like a contradictory environment to explore reflection and authenticity, as these qualities require human interaction. Education “delivered” in an online format is often equated with distance and separation between teacher and student rather than learning within a community. I believe that any environment where teaching and learning take place has the potential to establish a unique community where individuals construct and create their own knowledge based on previously experienced knowledge, new experience, new opportunities, and events. Even in technological environments, an education setting based
on the philosophical underpinnings of social constructivism and reflective practice can be established.

Instead of being passive recipients of knowledge, we now consider students capable of constructing their own knowledge with guidance from the teacher. We can offer part of this tutorial guidance by setting up an environment that will provide students with the resources necessary for independent exploration. In using emerging computer-based technology as a resource, students are encouraged to explore their own interests and to become active educational workers, with opportunities to solve some authentic problems. (Berge & Collins, 1995, p. 6)

Reflecting on the words of John Taylor Gatto, thinking about what I had read on the website of Dedham, and reconstructing remembered stories of my student Wayne, offered me the opportunity to contemplate the power of narrative inquiry as I explored my own teaching practice and developed a lived theory. “Formalists begin inquiry in theory, whereas narrative inquirers tend to begin with experience as lived and told in stories” (Clandinin & Connelly, 2000, p. 40). As I considered how I came to a new understanding of the impact of educational technologies on my process of reflection by finding the town of Dedham website, I was reminded of the constantly shifting nature of phenomena in narrative inquiry depending on how their context is framed and positioned by the researcher. “Narrative inquiry carries more of a sense of continual reformulation of an inquiry than it does a sense of problem definition and solution” (Clandinin & Connelly, 2000, p. 124).

I continued to reflect on the page marked by my student. John Taylor Gatto notes that people learned to be neighbours in Dedham (a community that had whipped half-naked
Quaker women for preaching against professional ministers, restrictions on individual conscience, and the established customs of the church-ruled settlement)

because they were allowed real choice for three hundred years, including the choice to make their own mistakes. Everyone learned a better way to deal with difference than exclusion because they had time to think about it and work it through in time; time measured in generations. (Gatto, 1992, p. 95)

I believe that in the classroom, as a teacher, I allow choice, the freedom to make mistakes, the time needed to construct knowledge, the time and space required to reflect, and finally to become authentically human. I like to think that Wayne recognized these qualities and marked the passage accordingly. I know that we both believed in the power of education to empower individual selves who might then come together in a more enlightened community.

First Learning, First Teaching

Computers were not part of my childhood or my early learning. The first excitement I remember feeling over the possibilities inherent in the world of information technology and education was during my university education. I eagerly read Mindstorms: Children Computers and Powerful Ideas (1980) by Dr. Seymour Papert, an MIT mathematician, an early pioneer of Artificial Intelligence, and a man scorned for his beliefs in the 1960s that computers could be an integral part of children’s learning and creativity. After reading the book, I learned to develop children’s computer programs using Logo, a computer language known for its “turtle graphics.” I remember the excitement and sense of accomplishment I felt as hours flew by in the library (of course in the early 80s I did not yet have my own computer). By the end of the project I had developed a verbal, musical,
visual introduction to the computer keyboard geared to children aged 18 months to 3 years. Like others in my field, I was convinced that the use of computers in the classroom epitomized constructivist learning for the young child.

After my university studies, I spent several years as a teacher of young children (in environments absent of any educational technologies), worked with socially challenged youth, and supervised the care of young children at a home child-care agency. None of these environments offered a venue to practice my newfound computer skills or to test my beliefs about the teaching and learning possibilities offered by the use of educational technologies in learning environments. Not until I began my career as a college professor was I given another opportunity to teach and learn using the tools of educational technologies.

For the last decade, I have taught as a college professor in the School of Early Childhood Education, preparing students to be teachers of young children. I have struggled during that time to keep “children and technology” as part of our curriculum; I have used digitally captured videos and computer-generated interactive activities to teach real-time classes, and I have had the opportunity to dream, write, create, develop, and finally teach fully online courses. Through professional development opportunities I have shared my own stories of teaching and learning in technologically enhanced environments and have listened to many stories of teachers who have engaged in similar experiences. Consistently these conversations and reflections on teaching have included questions of the challenges of integrating educational technologies as a teaching tool and finding their place within personal teaching philosophies.
What Is My Work About?

As I remembered my young adult experiences around the creation of a computer program for children, I tried to recall a time as a child myself when I had a similar feeling of being an empowered learner. One of the best teachers I remember having was during my fifth grade of elementary school. The learning experience that was the most memorable for me was discovering the skills necessary to plan, plant, and nurture a flower and vegetable garden. The experience encouraged my natural curiosity, supported my quest for knowledge, and gave me the opportunity to try out my ideas in a very practical sense. Some of my seeds sprouted, while others grew into plants but did not produce flowers or fruit. My entire garden was a wonderful creation that made me feel knowledgeable, creative, and in control of my learning. Gardening today, as an adult, gives me all the same feelings. Teaching, like gardening, gives me the joy of witnessing the growth of curiosity and the acquisition of practical knowledge in my students as well as myself.

I believe that democratic educational experiences, like gardening, can be empowering. My belief is that the best route to empowerment for an individual is to grow and develop in his or her own unique way within a nurturing environment. Learners discover, explore, and create their own meanings and values in a community where “selves” are created through relations with others. For me, the purpose of education and my motivation for teaching is to contribute to the building of humanistic communities by interacting and communicating with others in educational environments to negotiate communal meanings that might lead to significant social meaning in the form of equality, cooperation, collaboration, and shared power and control. I found the most effective form of
communication in teaching and learning environments to be the sharing of narrative or storytelling.

I think that stories not only help us to make sense of our own lives, but they are also the way we see and understand others. Human connections are built around stories. When we hear our story in the telling of someone else’s stories, we feel empathy for that person and also a sense that we are understood in a collective life experience. Coming together in a community to learn, where hearts and brains are engaged, personal philosophies and pedagogies are honoured, and individuals are equal and authentic, seems to me to be the true definition of education. Whatever means are used to reach this state of “knowing” are valid, valuable, and powerful tools, particularly if they heighten the level of creativity experienced by teachers and learners.

**Teaching and Learning Questions**

The purpose of this inquiry is to relay the experiences of 3 teachers who have utilized educational technologies within teaching and learning communities so that their common experiences might give meaning and insight to inform the practice of other teachers who seek authentic, reflexive practice in educational environments that utilize educational technologies. The teaching and learning questions described below are the basis of my own teaching and learning philosophy and serve as the guiding framework that drives this research inquiry.

1. Does the use of educational technologies induce a creative tension in the teaching and learning environment, and if so, how?

When asked by students why I became a teacher, I have traditionally responded, “I never stopped wanting to be a student.” The excitement of learning has always been an
impetus for me to continue to teach. Learning something new excites me as a learner, encourages me to seek out more information, gain knowledge, and ultimately to share my discoveries with others. An opportunity to work and learn in an environment enhanced with educational technologies has given me new insights into the process of teaching and learning. Finding the courage to explore a novel educational environment together with learners and engaging in the exploration of something new to all in the journey has led to a heightened level of excitement and tension for me as a teacher and as a learner.

Reflecting on my own teaching experience and that of other teachers who have used educational technologies has convinced me that many if not most participants in the educational setting seem to experience a highly creative process, a phenomenon Parker Palmer (1998) refers to as a “creative tension or a paradox.” Educational technologies seem to serve as one medium or technique that creates a “charged” environment.

Teaching and learning require a higher degree of awareness than we ordinarily possess—and awareness is always heightened when we are caught in a creative tension. Paradox is another name for that tension, a way of holding opposites together that creates an electric charge that keeps us awake. Not all good teachers use the same technique, but whatever technique they use good teachers always find ways to induce this creative tension. (Palmer, 1998, pp. 73-74)

The use of educational technologies in the teaching and learning environment can be critically explored using Palmer’s (1998) six paradoxical tensions in the teaching space. The tensions address the use of space, bounded and open, hospitable and charged; invitations for voice of the individual and the group; honouring of story from the students as well as the discipline and traditions; the support of solitude and community; and an
invitation for silence and speech (p. 74). "The principle of paradox can help illumine the selfhood of any teacher and the construction of any teaching and learning space" (Palmer, p. 77). An argument can be made that technological environments used as a teaching and learning space that honour the criteria of paradoxical tensions will in turn induce a creative tension.

2. Does a creative tension increase reflective practice and authenticity in teaching and if so, how?

As I reflected on my teaching, I discovered that my demeanour became more authentic. As I taught over time, I became more comfortable sharing my thoughts, my stories, and my own difficulties as a learner. As I presented myself as an authentic facilitator, I discovered that my students seemed to become more authentic as well. The teaching and learning environment became a place where transparency and self-disclosure seemed evident. The use of educational technologies in my classroom has served as catalyst for a charged environment. The need to reflect on the impact of educational technologies to learning in the classroom and in online environments, the need to be humble and honest as I learn along with students, the paradox I am offered to be truly authentic, rather than taking advantage of opportunities to present myself as something I am not, and finally the constant reminder of the need to balance teaching stories as they are conveyed through video with those stories of the learners in the class, keeps me constantly authentic because I spend so much time thinking about and reflecting on my teaching.

All of my students are student teachers, and observation and practice teaching are central and essential to their learning. In the past my students would need to wait in an
observation booth for a specific event to happen or they would be asked to recall an incident from their practice teaching placement. The use of educational technologies in the classroom enhanced opportunities to discover meaning in varied formats and to bring learning moments to the classroom in a virtual sense that in the past could have been experienced only through real-time experience. I no longer had to wait for a teachable moment to happen; I had the tools through video, interactive websites, and flash activities to bring teachable moments into the classroom.

Over time I discovered that the creative potential of using technology in the classroom was soon replaced by the ability to use technology as a tool of avoidance. My personal life became more difficult as I struggled to recover from a neurological illness, followed by many futile attempts to repair a crumbling 22-year partnership. I was left with few reserves to teach, let alone be reflective or authentic. I realized that I had begun to hide behind my “teaching tools,” and I was feeling lost in the classroom. Acting on the advice of a respected colleague, I decided to tell my classes enough of my personal life story that they might gain some insight into my “state of being” in our teaching and learning environment. With few details and a great deal of honesty I shared my “story.”

In the words of bell hooks (2003), “there is that moment of delay that allows us-in the midst of physical suffering and pain-to remember that we are more than our pain. And that there are other ways that we can speak” (pp. 163-164). I had struggled in my teaching career to find ways to speak to students beyond walls, boundaries, and distance. I was humbly reminded that within those walls and boundaries, with or without distance, I needed to remember to speak.
After finding my own authentic voice and gaining the courage to speak in the classroom once again, I found that my use of educational technologies changed. I spent less time utilizing presentation software (Powerpoints) and lengthy videos and more time utilizing short video vignettes that I had developed previously for an online course. The educational technologies I used, specifically video capture with an explanatory voice-over (my own), allowed me to view with students a very precise moment of a child's development, to freeze that moment, and to examine and discuss it in great detail. The creative challenge of using "virtual moments of child development" to teach students about the "real time development" of children was enormous. The online child development course that I had codeveloped was designed around "story boards"-moments in children's lives that told their developmental stories. The children's stories were beautiful to watch, fascinating to understand, and a joy to be able to see again and again.

The videos of developmental stories were invaluable on their own but were also a teaching tool, and I realized I was allowing the tool to replace my own teaching voice and the voices of my students. My stories of my observations of children and their development and learning were important, and so were the stories that my students brought to class of the observations they made in their student teaching placements. I became aware that the use of video in my class was gradually encroaching on the time needed to include these crucial teaching and learning stories.

I began to realize that the very process that had created an atmosphere of creative tension could also be used to keep creativity, reflection, and authenticity out of the learning community. When the teaching and learning focus gradually moves to the
educational technologies alone, opportunities to communicate our stories, both personal and those that give insight into the community and lead to learning through negotiated meaning, can easily be lost. Educational technologies can be used to bring more stories into the learning community but cannot replace the narratives of the community of learners.

3. How might I, as a professor of adult learners, relate my experience of an atmosphere of creative tension and its impact on reflection and an authentic demeanor in teaching and learning communities?

The world of information technology is often relegated to an educational approach labeled as conservative and objectivist (Vrasidis, 2000). The practices of reflection and authentic teaching are considered liberal in nature and fit with a constructivist approach to teaching and learning with educational technologies (Jonassen, 1992; Jonassen & Reeves, 1996). Juxtaposing these seemingly opposite teaching paradigms creates a tension or paradox while teaching and further establishes a challenge to honour “liberal” philosophical and pedagogical perspectives within a “conservative” teaching and learning environment. As a teacher, I realized that much of my reflection and the resulting attempt to be authentic have resulted from the need to stay true to my “heart,” my creative centre, while keeping pace with advances in teaching and learning through technology, a task primarily involving my “brain,” my intellectual centre.

But for all the power it has given us in science and technology, either-or thinking has also given us a fragmented sense of reality that destroys the wholeness and wonder of life. Our problem is compounded by the fact that this mode of knowing has become normative in nearly every area, even though it misleads and betrays us when applied
to the perennial problems of being human that lie beyond the reach of logic. (Palmer, 1998, p. 62)

The process of teaching can be viewed as a paradox, as it combines conflicting views or "truths." According to Palmer (1998, p. 63), ordinary truths about teaching can be expressed only as paradoxes. These ordinary truths involve self-identity as it manifests itself through interaction with others, expressing personal identity through a public teaching technique, and teaching minds by touching emotions. My teaching is grounded in the belief that intellect cannot be separated from feeling and that opportunity for teachers and students to experience creativity excites both the mind and the heart.

A creative, excited, charged learning community, one that experiences a heightened sense of creative tension, becomes authentic in the interaction of many individual self-identities, causing individuals to think and reflect in a continual cycle. The very presence of educational technologies in the classroom and the consideration of their impact on learning in online environments create a certain level of discomfort, an invitation to explore the "creative tension" they offer.

Educational technologies can increase interaction with others in the teaching and learning community or lessen personal interaction. Teachers and learners can use educational technologies to authentically present themselves or they can hide behind the tool. Educational technologies can be very prescriptive and text based or can invite open dialogue, discovery and interpretation. Educational technologies in the teaching and learning community seem to present a paradox and a subsequent invitation to teachers to reflexively adjust their position between two opposing poles as they navigate the journey of teaching with these tools.
Dr. Lauren Artress (1995) discusses the idea of creative tension as she describes the experience of learning or knowing as it relates to walking a labyrinth.

There is creative tension between allowing images, memories, and feelings to emerge and guiding them through a gentle, gracious, open, and expanded thought process. At the same time we cannot let our ego get in the way of what is emerging from the soul level. The walk out of the labyrinth is realistically and symbolically the act of taking what we have received out into the world. (p. 78)

As a teacher who had the courage to teach within a new paradigm, by utilizing new and available educational technologies, I identified with the experience of those who walk the labyrinth. When we leave the labyrinth we can choose to authentically share what we have learned with those we teach as it relates to our developing sense of self. An honest or “soulful” sharing includes feelings and memories of frustration, inadequacy, and self-doubt, along with the excitement of mastery, accomplishment, and creative endeavour. “For teachers, the discovery, honouring, and expression of an authentic voice are genuinely transformative processes. When we speak in a voice that is authentic to us, our experience and our practice cohere in a way that feels pleasingly consistent” (Brookfield, 1995, p. 46).

**Inquiry Framework**

I have come to realize that I view life as a narrative journey. Story-telling, poetry, artistic expression allow me to see the path I have taken, to choose a new one to follow, to make sense of my decisions and actions. As a teacher and a student, I have had a very intimate journey with the lure of educational technologies. This alluring journey has
given me the opportunity, through artistic representation and reflective practice, to explore my authenticity as an educator and a learner.

This narrative inquiry of reflection and an authentic presentation of self in technologically enhanced teaching and learning communities utilized an eclectic, multidisciplinary, theoretical framework. Narrative inquiry captures and investigates experiences as human beings live them and the research process itself is a lived experience. According to Clandinin and Connelly (2000), life “is filled with narrative fragments, enacted in storied moments of time and space, and reflected upon and understood in terms of narrative unities and discontinuities” (p. 17).

Critical educational pedagogies with an emphasis on humanistic, holistic, pragmatic, democratic, and transformative practices are emphasized. The principle of interconnectedness central to the ideals of holism seeks to develop approaches to teaching and learning that foster connections between learners through various forms of community (J. Miller, 1993, 2005; J. Miller & Nakagawa, 2002). “Holistic education is the art of cultivating meaningful human relationships. It is a dialogue between teacher and student within a community of learners” (R. Miller, 2000, p. 196).

Community members are the individuals who come together within a learning community. The theoretical roots of “pragmatism” and “democracy” are usually attributed to John Dewey. Dewey (1916, 1938) advocated learning that was active, student centred, and involved shared inquiry at a time when the traditional learning models were mechanistic and teacher centred. The aim of research, according to Dewey is to study human experience.
Transformative learning is a theory of learning that has been developed by Mezirow and has evolved "into a comprehensive and complex description of how learners construe, validate, and reformulate the meaning of their experience" (Cranton, 1994, p. 22). Themes in Mezirow's theory include the centrality of experience, critical reflection, and rational discourse (E. Taylor, 1998). When transformative learning occurs, students critically reflect on their assumptions and beliefs, change their frames of reference, and consciously make and implement plans that bring about new ways of defining their worlds in a learning process that is rational, analytical, cognitive, and inherently logical (Mezirow, 1997).

Elements of social constructivism are emphasized, with the perspective that self-identity and experience are culturally and personally constructed and cannot exist in a separate objective zone. Lev Vygotsky (1962, 1978) theorized that learning and the construction of meaning is a relational, social process. Vygotsky's theory focuses on the connection between people and the cultural context of the shared experience of learning, where students, peers, and teachers play an active role in the education process. Learning is a reciprocal experience for the students and the teacher, where the classroom can easily be seen as a community and those within it the community members.

A narrative inquiry framework establishes a plot for the examination of character (teachers), scene (use of educational technologies), place (the learning environment), time (real and virtual), and point of view (teacher's knowledge of enhanced creative tension) in communities of learning that can be identified as being both reflective and authentic. "Good narrative has an explanatory, invitational quality, has authenticity, adequacy and plausibility" (Clandinin & Connelly, 2000, p. 26). I believe that to
understand in a human dimension is to understand a narrative or a story. When teachers and students share their stories, a door opens in both directions, community participation is fostered, and the discovery of “voice” is found in the struggle to communicate meaning to someone else (Clandinin & Connelly, 1990).

Narrative inquiry takes the narrative to another level. Through my conversations and questioning of the participants, I was able to uncover insights, deeper meanings and understandings of their lived experience that the participants themselves were not aware of until we engaged in that inquiring process. One of the participants seemed to realize, during our second interview together, that she kept coming back to her ideal of the opportunity for all students to learn about children through “the observation booth”, an experience she had had as a student. She seemed to suddenly realize that the ability to bring observation opportunities to students through video vignettes would recreate this powerful learning tool for her students, bringing them to a “digital observation booth.”

Within the teaching and learning environment, stories become knowledge and members of the community engage in moments or processes that involve challenge, growth, transition, and transformation. The purpose of the narrative inquiry is present in and around the story: the story of the teacher, the student, and the researcher. “In narrative inquiry, people are looked at as embodiments of lived stories” (Clandinin & Connelly, 2000, p. 43). Those lived stories, create written texts in the form of narrative accounts and “when well done, offer readers a place to imagine their own uses and applications” (Clandinin & Connelly, 2000, p. 42).
Underlying Principles of My Teaching Approach

The stories that are communicated in this narrative inquiry are filtered through my philosophical views of teaching and learning, my biases, and my pedagogical/andragogical stance as an educator. As it was impossible to exclude myself from the lived experience of research, I included my own personal theories of teaching and learning through story. Since qualitative inquiries can never be free of subjectivity, the following section outlines my approach to teaching and learning and identifies the values and assumptions that I bring to the research inquiry.

Learning Is a Dialectical Process

I believe that learning is dialectical and is characterized by interactive, constitutive, and transformative dimensions (Mackeracher, 1996). Learning is interactive because we make meaning through the exchange of information with our environment, particularly the people in that environment. Since communication is the primary means of information exchange, dialogue is central to the learning process.

Dialogue has the potential to alter the meaning each individual holds and, by so doing, is capable of transforming the group, organization, and society. The relationship between the individual and the collective is reciprocal and is mediated through talk. People are both recipients of tacit assumptions and the creators of them. In this way dialogue results in the co-creation of meaning. The meaning that is created is shared across group members; a common understanding is developed. (Dixon, 1996, p. 24)

My strong belief that meaning is cocreated and that common understanding is developed through dialogue is evident in the use of interviews as a central form of gathering field texts in this research inquiry process. The interview format was
unstructured, as I believe that the dialogue itself will inform a common understanding of meaning.

Learning is constitutive because it leads to social meaning through equality, cooperation, collaboration, and shared power and control. Freire (1970) describes the idea of a "learning democracy," set within the conditions of the world today and in the multiple perspectives of class, race, gender, and other group affiliations. Learners and teachers bring "many selves" to the learning community, and in a dialectical process an effort is made to create conditions under which all voices can speak and be heard (including our own) and in which educational processes are seen to be open to genuine negotiation.

My own voice is evident in this research inquiry process but is no more important than the voices of participants. The process of the interviews and the interpretations of the field texts collected were open to negotiation from participants, as they were invited to read their narrative accounts and participate in the process of making their voices accurate and representative of their "selves."

Learning and teaching are transformative. "People, not as recipients, but as knowing subjects, achieve a deepening awareness both of the social-historical reality which shapes their lives and of their capacity to transform their reality" (Freire, 1988). Mezirow's (1997) theory of transformative learning highlights the importance of experience, critical reflection and rational discourse. I believe that the use of educational technologies in teaching and learning environments can be transformative and that when teachers experience similar events and then reflect on their significance, new insights are gained and further reflection occurs that in turn informs new practice. This research inquiry
might serve as an invitation to reflect on the insights of teachers who may share similar experience.

Dialectical thinking works to reveal critical contradictions and paradoxes (Reason & Rowan, 1981). Parker Palmer’s (1980) early research on teaching and learning focused on the presence of paradox, specifically a “Western tendency” to think in polarities, a practice that results in an intellectual disconnection in the teaching and learning environments. In contrast to disconnection lies the possibility of embracing apparent opposites in the search for truth and authenticity in education. “Paradox is not only an abstract mode of knowing. It is a lens through which we can learn more about the selfhood from which good teaching comes” (Palmer, 1998 p. 66).

From a dialectical research perspective, ideas and conclusions are presented in a way that paradoxes and transformations are revealed.

We are very subjective creatures, and our perceptions of reality are strongly influenced by the paradigms, myths, and metaphors that find their way into both personal and professional contexts. We are not value free, and, paradoxically, we may achieve greater degrees of objectivity only when we can appreciate our subjectivity.

(Dale, 2001, p. xii)

Inquiry insights and discovered meanings in this research inquiry were negotiated with participants as they interacted through the communication process. “What does dialogue require of people? Those who engage in dialogue must come to it with humility, love, faith, and hope – a formidable list of characteristics, but one that exemplifies a relational, rather than technical perspective” (Dixon, 1996). The relationship between me as
researcher and participant and fellow teachers as participants is central to the inquiry process of negotiating and uncovering shared meanings.

Within a dialectical research paradigm, my experience is central to the inquiry. Dialectic experience of the specific, concrete world of objects and events always precedes the understanding of theory (Ricoeur, 1991). Dialectical thinking is utilized to reveal critical contradictions and paradoxes within the inquiry. The process of teaching and learning in technologically enhanced educational environments is filled with paradox. For example, as teachers we can use educational technologies to distance ourselves from learners or to allow ourselves to be vulnerable; we can take total control of the learning environment or we can share power by giving total access to information.

Learning and Teaching Is Humanistic and Holistic

I believe that teaching and learning environments are most effective when they are humanistic or person-centred; when the focus is on the whole person and on learning that involves body, brain and heart and considers both cognitive and affective domains. Learners learn through discovery, exploration and the creation of personal meanings and values.

Humanistic models are based on the value orientation that each learner not only is unique but also is worthy of respect and acceptance, and of being treated with dignity. This orientation suggests that facilitators must be willing to acknowledge learners are as much a potential resource for learning as facilitators and that all share rights and responsibilities which are equal and reciprocal in nature. (Mackeracher, 1996, p. 231)
Similarly, within the research inquiry process, I acknowledge participants as potential researchers and engaged them in a process that reflects equality, reciprocity and the co-creation of meaning.

"Holistic education is the art of cultivating meaningful human relationships. It is a dialogue between teacher and student within a community of learners" (Miller, 2000, p. 196). Humans are complex and made up of many layers of meaning. Human development is both personal and universal, and as educators I believe we must address the spiritual, social, and cultural identities that make up the realities we inhabit. Since the collective realities within a learning community vary as much as our own unique selves, a holistic approach to education cannot be reduced to any single technique. Through our relationship with others, our self is shaped and given meaning.

My desire to connect with others and my belief that they wish to connect with me comes from a place of love, not romantic love, but a love of connecting in community. To be guided by love is to live in a community with all life. However, a culture of domination, like ours does not strive to teach us how to live in community. As a consequence, learning to live in community must be a core practice for all of us who desire spirituality in education. (hooks, 2003, p. 163)

*Meaning and Reality Are Socially Constructed*

In dialectical learning environments, learners discover, explore, and create personal meanings and values, a process also known as "social constructivism" and attributed to Lev Vygotsky. Vygotskian constructivism situates the learner within a social context and the teacher as collaborator or coconstructor of knowledge.
Good teachers join self and subject and students in the fabric of life. Good teachers possess a capacity for connectedness. They are able to weave a complex web of connections among themselves, their subjects, and their students so that students can learn to weave a world for themselves. (Palmer, 1998, p. 11)

As we journey together in the pursuit of understanding, discovery of meaning occurs. In life and in the pursuit of knowledge, discovery of meaning is not usually accomplished in the moment but is revealed through the act of reflection on past experience. Without a willingness to share self, most opportunities for true learning are lost. I believe that the relationship between teachers and learners is essential in the consideration of the educational environment. I also believe that the relationship between researcher and participant is essential to the research inquiry process and that as a researcher I must become “autobiographically conscious” of my reactions to the research. Narrative inquiry always considers the tensions central to the boundary between narrative research and formalistic inquiry, “the place of theory, the balance of theory, people, and the place of the researcher” (Clandinin & Connelly, 2000, p. 46).

Teaching and learning are critical to our individual and collective survival and the quality of our lives. The pace of change has us snarled in complexities, confusions, and conflicts that will diminish us, or do us in, if we do not enlarge our capacity to teach and to learn. (Palmer, 1998, p. 3)

The pace at which educational technologies have become available for use by teachers and students is astounding. Educational technologies are complex and confusing, and arguments among educators about their educational use are fraught with conflict. Through the dialogue of teaching experience in this research inquiry, some insight might
be gained into the meaning of creativity, authenticity, and reflection in teaching and learning communities that utilize educational technologies.

**Relevance of Inquiry**

The following sections outline the relevance of the research inquiry to teaching practice, to the importance of reflexivity in teaching and research, and to advances in educational technologies. The use of educational technologies is described as a creative teaching tool that can be utilized by teachers to facilitate heightened critical reflection and a demeanour of authenticity in the classroom and in online learning environments. An increased knowledge of teachers' experiences in teaching and learning communities that utilize educational technologies might inspire and assist educators in their quest to make better use of available technological tools and to be more aware of their creativity and more reflective of their teaching in the process.

*To Teaching Practice*

The dialectical nature of teaching and learning and of research about teaching and learning highlights the role of conflicting paradigms. I believe that the heightened interest in technology in education over the past several years is in part because of an interest in progress, in making things "better" or "more "efficient." When viewed as a creative process, the use of educational technologies in the learning community takes on a very different role in education, one that can be seen as completely opposite to progressive efficiency. Bringing these two paradigms together creates a paradox, a creative tension. It can be argued (Palmer, 1998) that this creative tension strengthens the teaching and learning process.
“Good teaching cannot be reduced to technique; good teaching comes from the identity and integrity of the teacher” (Palmer, 1998, p. 10). My identity and integrity come from a feeling of authenticity as a person and as a teacher when I recognize my strong belief in the need to honour “community.” My metaphor for teaching has expanded as my teaching experiences have increased, but the metaphor of community has been consistent in my teaching narratives. My teaching narratives and the teaching narratives of participants may provide an impetus for other teachers to construct their own narratives and to search out their teaching metaphors. The search for community in all teaching and learning environments, including those that utilize educational technologies, has helped me to critically reflect on my teaching practices.

*Importance of Reflexivity in Teaching*

Reflexivity is the process of engaging in critically reflective practice. When teachers make a conscious effort to stand outside of the teaching and learning environment and thoughtfully consider their actions, they gain insights that are rooted in the personal but that might also be considered as relevant to other teachers once the role of culture and identity have been clearly identified.

Reflective practice has its roots in the Enlightenment idea that we can stand outside of ourselves and come to a clearer understanding of what we do and who we are by freeing ourselves of distorted ways of reasoning and acting. There are also elements of constructivist phenomenology in here, in the understanding that identity and experience are culturally and personally sculpted rather than existing in some kind of objectively discoverable limbo. (Brookfield, 1995, pp. 214-215)
Schön's (1983) work on the reflective practitioner highlights the many ways a practitioner reflects on practice and highlights the importance of context, personal theories, and feelings in the reflective process.

When a practitioner reflects in and on his practice, the possible objects of his reflection are as varied as the kinds of phenomena before him and the systems of knowing-in-practice which he brings to them. He may reflect on the tacit norms and appreciations which underlie a judgment, or on the strategies and theories implicit in a pattern of behaviour. He may reflect on the feeling for a situation which has led him to adopt a particular course of action, on the way in which he has framed the problem he is trying to solve, or on the role he has constructed for himself within a larger institutional context. (p. 62)

More specifically, reflexive inquiry is connected to the assumption that teaching and teacher development are rooted in the “personal” and inquiry, is situated in the context of personal histories in order to understand personal influences as they impact on professional practice. Reflexive inquiry, unlike some forms of reflective inquiry, is always rooted in a critical perspective, and according to Cole and Knowles (2000) is “characterized by interrogation of status quo norms and practices, especially with respect to issues of power and control” (p. 2). Brookfield (1995) highlights the importance of reflection to a considered rationale for teaching practices.

Critically reflective teachers have their practice grounded in a clearly understood rationale. They can call on this rationale when they need to justify to themselves, and to others, why they’re doing what they’re doing in the way that they’re doing it. This rationale is based on assumptions that have been investigated and on awareness that
their practice can be interpreted in different ways. It is tied to the possibility of realizing democratic processes and on furthering justice and compassion. As such, it provides a touchstone for how such teachers make decisions about their practice. When judging directions and choices for action, they are not acting in a haphazard or arbitrary way. If asked why they prefer one possibility over another, they can give reasons that spring from an examined rationale. (p. 266)

Cole and Knowles (2000) stress that teaching itself is a process of inquiry. Our experiences and our practices as teachers leads to reflections and analysis which informs our future actions. “Engaging in research on one’s own teaching and being reflexive about one’s professional practice are one and the same when the inquiry begins with and returns to the teaching self” (p. 94).

I engaged in critically reflective practice by using a reflexive inquiry research approach and by recognizing the process and importance of teacher reflection, mine and that of the research participants. My heightened understanding of my “teaching self” and my reflections of the “teaching selves” of participants might help to enlighten or inform the “teaching selves” of others who find themselves in similar teaching and learning communities.

Advances in Educational Technologies to Enhance Learning

The use of educational technologies in teaching and learning environments in my experience is often viewed as a positive or negative phenomenon, a pedagogically sound or unsound practice. I believe that teachers argue the pedagogical value of teaching with technology and within technological environments in part because so little is known about teachers’ experiences.
If we stopped lobbing pedagogical points at each other and spoke about who we are as teachers, a remarkable thing might happen: identity and integrity might grow within us and among us, instead of hardening as they do when we defend our fixed positions from the foxholes of the pedagogy wars. (Palmer, 1998, p. 13)

A strong sense of identity and feelings of integrity are more tangible interpersonal states when teachers feel confident within their teaching landscape. It seems to be part of human nature to stand back and criticize that with which we are unfamiliar. By communicating my own and research participants’ stories of their experiences with educational technologies, my hope is that other educators will gain a higher level of comfort with pedagogical positions that are more malleable and open to experimentation with innovative teaching tools.

Joy (2004) observed that there has been little research conducted on instructors’ experiences of teaching in online environments with respect to authenticity. She argues that such research is needed because these individuals are best suited to act as guides for teachers going through the transition from in-class to online, and they are most likely to develop a foundation for success. My hope is that my personal narrative of teaching in technological environments will join the stories of the experiences of the participants in this research inquiry and add to the growing body of knowledge concerning authenticity in teaching in online environments and in face to face classrooms where educational technologies are utilized. This knowledge, conveyed through narrative, might provide a clearer path for some teachers in the technologically enhanced teaching and learning landscape.
Assumptions and Limitations

Any attempt to answer or address questions of teacher practice and knowledge reflects a set of underlying assumptions. As a researcher I am aware that I have unique perspectives and points of view. The construct of a perspective or point of view is termed a critical lens in the world of art. Works of art, for example, can be viewed from the perspective of a formalist who utilizes a heightened focus on the visual result of the artwork or a conceptualist who would focus on the idea or concept of the piece.

Teaching with educational technologies can be viewed in a similar way, where scrutiny is focused on the educational tool as a final product or as the idea or concept the educational tool embodies.

A further critical lens is one that is sociocultural. I believe that educational environments have a community culture, evident in social relationships, the distribution of power, and gender dynamics. As a feminist, my critical lens is focused on the importance of situated knowledge, specifically knowledge that reflects the particular perspectives of the research participants.

[Teachers] accord respect to and allow time for the knowledge that emerges from first hand experience; if instead of imposing their own expectations and arbitrary requirements, they encourage students to evolve their own patterns of work based on the problems they are pursuing. (Belenky, Clinchy, Goldberger, Tarule, 1986, p. 229)

The last critical lens is one of pragmatism. Pragmatists such as John Dewey and George Mead, approach individuality as socially based. Dewey focused on differentiation of individuals within organic wholes. George Mead argued that our selves are formed in interaction with others. I believe that individual selves are a part of a collective whole and
that the more we reflect on the self, specifically as teachers, the more we impact other selves, in this case the students we teach, and in turn the more we realize the self.

“When we are doing something, we are unaware of what is going on until we see our doings reflected back to us; that reflection back gives us ourselves as an object, a ‘me’” (Sampson, 1993, p. 105). The research of Lev Vygotsky (1962, 1978) holds that social relations are fundamental to the formation of self, as personality is developed through encounters with the physical world and through interactions with others, mediated by language.

*Of Exploration of Self*

Barabara Myerhoff provides a beautiful definition of self and highlights the importance of community and universal stories to our lives.

A self is made not given. It is a creative and active process of attending a life that must be heard, shaped, seen, said aloud into the world, finally enacted and woven into the lives of others. Then a life attended is not an act of narcissism or disregard for others, on the contrary, it is searching through the treasures and debris of ordinary existence for the clear points of intensity that do not erode, do not separate us, that are most intensely our own, yet other people’s too. The best lives and stories are made up of minute particulars that somehow are also universal and of use to others as well as oneself. (Myerhoff, 1992)

Much of my research inquiry focused on self-exploration, the telling of my teaching stories and my reflections on the teaching stories of others. Narrative inquiry is a methodology that provides findings that are authentic and resonant. A limitation of this approach is the recognition that knowledge is tentative and variable in nature of and
therefore findings might result in more questions than they do answers. My assumption lies in the belief that my own experience is of some value to the research inquiry and that subjectivity is a welcome and accepted outcome of the process of uncovering meanings and implications. “None of us are to be found in sets of tasks or lists of attributes; we can be known only in the unfolding of our unique stories within the context of everyday events” (Gussin-Paley, 1990, p. xii).

Britzman (2000) discusses the dilemma in current teacher education regarding not only what knowledge is but what knowledge in fact matters.

Self-knowledge is not a feature of the experience but a residue of the self’s desire to keep the experience as her or his own, to feel again one’s affective ties, to remind the self that ideas one knew before can matter. (p. 204)

One limitation in studies that focus on an exploration of the self is to whom does the knowledge matter beyond those involved in the research inquiry itself? It is possible that uncovered meanings and implications may not be easily generalized or transferred to other teachers and other teaching environments.

*Stories and Narratives Are Ways of Thinking, Knowing, and Representing Knowledge*

“Narrative is the study of how humans make meaning of experience by endlessly telling and retelling stories about themselves that both refigure the past and create purpose in the future” (Connelly & Clandinin, 1988, p. 24). A narrative framework focuses on perspectives and views of individuals, and through telling and listening to stories the research process aims to understand deeper meanings of individual’s experiences and how these experiences are articulated through dialogue. Those who
engage in dialogue come to it with a relational rather than technical perspective (Dixon, 1996).

My assumption in choosing a narrative inquiry framework is that it is essential for humans to tell stories and this is the way that they think, know, and represent their knowledge. Brookfield (1995) asserts that “feeling the power of one’s voice is fundamentally connected with developing one’s sense of agency. This is why talking about teaching is so important” (p. 46). A limitation of the narrative inquiry approach lies in the possibility that although teachers may be able to dialogue about their experience and knowledge, the ability to articulate their experiences does not mean that they demonstrate this knowledge in their teaching practices.

The outcome of narrative inquiry can be that it raises more questions in the process than it answers. “To dismiss the criticism that narrative inquiry is overly personal and interpersonal is to risk the dangers of narcissism and solipsism” (Clandinin & Connelly, 2000, p. 181). I can only hope to offer my teaching narrative accounts and my interpretations and reflections of the teaching narrative accounts of the participants in the research inquiry for others to consider and use to develop teaching practices that work for them.

Knowledge is a Cocreations of Understandings Within a Community

Implicit in the extraordinary revival of storytelling is the possibility that we need stories, that they are a fundamental unit of knowledge, the foundation of memory, essential to the way we make sense of our lives; the beginning, middle, and end of our personal and collective trajectories. (Buford, 1996, p. 12)
My assumption is that knowledge is socially constructed and that teachers and students make meaning of experience by telling stories in a reciprocal process. I believe that individuals are motivated to learn and that teachers and students learn how to construct relationships with each other as well as with the information they study. A limitation of holistic, humanistic approaches to education is that they are more applicable to small groups of students in environments where learning outcomes are flexible.

Qualitative Research Models

My research inquiry rests on the premise that as humans we are a part (self) of a greater whole (humanity). A belief in universality and a shared “human experience” is central to any uncovered meanings and implications in this inquiry. Qualitative research can only inform practice but cannot prescribe it. Inquiries within this framework are bound by values, contexts, time, place, and people. Objectivity is impossible, as the researcher is both the “knower” and the “known.”

Qualitative research is an interdisciplinary, transdisciplinary, and sometimes counterdisciplinary field. It crossects the humanities and the social and physical sciences. Its focus is multiparadigmatic and its practitioners are sensitive to the value of the multimethod approach. They are committed to the naturalistic perspective and to the interpretative understanding of human experience. (Denzin & Lincoln, 1994, pp. 3-4)

In Chapter Two I provide a literature review of research relevant to this thesis. Historical and current literature is used to critically examine my own theories and beliefs as they relate to authenticity and reflexivity in teaching and learning environments that utilize educational technologies.
In Chapter Three research methodologies and procedures used in my inquiry are described and related to relevant historical and current research texts. The use of a qualitative research model is further examined and the inquiry design rationale, selection of participants, and choice of research methods is discussed.
CHAPTER TWO: LITERATURE REVIEW

In Chapter One I used personal narrative to relate my own experiences of teacher authenticity and self-reflection in technological environments. The significance of my teaching stories was made clearer through connections to research focused on reflective practice, authentic teaching, learning communities, and social constructivism.

I struggled with Chapter Two for two reasons. My first struggle emerged as I read the literature review chapters of other theses in preparation for writing my own literature review. I finished the chapters with a clearer understanding of the historical significance of the inquiry, a grounding of related ideas and theories, and I had some sense of where the thesis fit into the literature. However, to be honest I did not often finish the readings, convinced that the authors had furthered their dialogue with the reader but felt more like they had interrupted that dialogue for the space of one chapter only to pick it up again in the next chapter.

My second struggle was because of the nature of the narrative research framework I used in my inquiry. Narrative inquirers frequently write theses without a specific literature review chapter but instead weave the literature throughout the text. Formalistic research traditions demand a literature review to provide a structuring framework. A literature review within a narrative inquiry framework creates a conversation between theory and the stories of teaching and learning lives found within the inquiry (Clandinin & Connelly, 2000). My hope in this chapter is to offer a dialogue between my beliefs and theories as they are presented in Chapter One and my ever-growing understanding of where they are situated in related historical and current literature.
In the following pages I have used passages from Chapter One (all are in block quotations and italicized) of my thesis to situate my thoughts and understandings within relevant literature.

*Technologically enhanced educational environments might seem like a contradictory environment to examine reflection and authenticity as these qualities require human interaction.*

In recent years educators, researchers, and policymakers have advocated for "learner-centred" and "community" models in contrast to the more traditional "teacher-centred" approaches to education. Unfortunately there are few criteria for distinguishing between a community of learners and a group of students learning collaboratively (Barab & Duffy, 2000; Grossman, Wineburg, & Woolworth, 2000). As well, little is known about the educational value of employing a community model for supporting learning (Barab, 2003). Special challenges exist in virtual communities where typing in a password admits a person to the status of "member" (Grossman et al.).

According to Barab, Makinser, and Scheckler (2004), an online community is "a persistent, sustained [sociotechnical] network of individuals who share and develop an overlapping knowledge base, set of beliefs, values, history and experiences focused on a common practice and/or mutual enterprise" (p. 23). Barab (2003) also asserts that "building online communities in the service of learning is a major accomplishment about which we have much to learn" (p. 198). Schwen and Hara (2003) challenge the oversimplistic assumptions surrounding the idea that communities can be "built." Further, they suggest that researchers and educators are at the beginning stages of understanding technological communities and that rather than advancing theories we are better served
by offering descriptive accounts from which the field can begin to learn and then
generalize to their own work.

*Even in technological environments, an education setting based on the philosophical
underpinnings of social constructivism and reflective practice can be established.*

Learning from a social constructivist perspective and the significance of web-based
and distance teaching and learning is discussed at length in the literature review of
shift from a teaching environment to a learning environment and outline the potential of
technology to provide new environments for education where co-operative learning, the
accommodation of different learning styles, and collaborative efforts are encouraged and
rewarded. Owston (1997) discusses the advantages of learning with the World Wide Web
and the opportunity it offers to appeal to students’ preferred modes and tools for learning
and for tapping into their social contexts for exploring the world. Jonassen and Reves
(1996) assert that learners learn from opportunities to construct their own knowledge but
recognize that the traditional, teacher-centred knowledge transmission model still
dominates technologically enhanced environments.

Zhao and Rop (2000) conducted an extensive literature review of studies that examine
technologies used for teacher professional development that emphasize “reflective
discourse communities”. They found that many studies made claims or assumptions
about community and that the terms “reflective” and “community” were used without
clear definitions of the concepts being examined. P. Taylor and Maor (2000) and Maor
(2003) in qualitative research studies described the personal accounts and “reflective
stories” of students and facilitator in an asynchronous, on-line postgraduate unit and
concluded that "constructivism can provide the theoretical basis for unique and exciting distance learning environments, in which the teacher and the learners collaborate to create a community of learners" (p. 215). Again, no clear criteria were used to confirm the existence of community or of a social constructivist learning environment.

Brent (2005) argues that the nature of new technologies is unstable as it is profoundly affected by the struggle between two views of knowledge: knowledge as "performance" and knowledge as a "thing." He concludes his examination of new technologies with the conviction that the future development and utilization of technology will be most influenced by the social group that wins the struggle over the meaning of technology. Brent asserts that when teaching is valued as performance, the promotion of social engagement and interaction is of key importance (cornerstones of social constructivism), and when teaching is valued as text, technology will be utilized to establish elaborate online texts that place students in the role of an audience rather than a participant (a practice not in tune with social constructivism). An argument can be made that when teaching in technologically enhance learning environments is valued as performance rather than as a thing, only then can the principles of social constructivism be realized.

The importance of reflection and its role in articulating our developing teaching theories, and perspectives on practitioner research is central to the work of Schön (1982, 1987) and McNiff and Whitehead (2002). Research becomes practice as practitioners engage in the processes of thinking, evaluating and acting. "The outcomes can be seen as new forms of theory grounded in the experienced reality of practitioners' lives. They emerge in practice as personal forms of acting and knowing" (McNiff & Whitehead, p. 22). The study of teachers who "act" and "know" within the constructs of social
constructivism and critical reflection might reveal a “living theory” of this practice that can then be shared collaboratively with like minded practitioners.

*I believe that in the classroom, as a teacher, I allow choice, the freedom to make mistakes, the time needed to construct knowledge, the time and space required to reflect and finally to become authentically human.*

Democratic teaching and learning communities are central to the ideals of social constructivism and ideally give space for each student to reflect and respond authentically. “To deny the importance of subjectivity in the process of transforming the world and history is naïve and simplistic. It is to admit the impossible...a world without people” (Freire, 1993, p. 66). Freire (1970, 1993) reminds educators of the importance of freedom and “learning democracies” where education must be set within the conditions of the world today and in the multiple perspectives of class, race, gender, and other group affiliations. Honouring the “many selves” in teaching and learning communities and making efforts to create conditions under which all voices can speak and be heard (including our own), and in which educational processes are seen to be open to genuine negotiation is central to the idea of authenticity.

Herman and Mandell (2000) describe the tensions present in education between “freedom and control, authenticity and acquiescence” (para. 15). Distances of space, time, and culture are obstacles in virtual environments but can be viewed paradoxically as “relief from inauthenticity.” Cranton (2001) defines authenticity as the expression of a genuine self in the community and facilitates a process where teachers come to know themselves in the context of their work. By extension, students who express themselves
as "genuine selves" in the teaching and learning community might also experience a heightened level of self-knowledge in the context of their learning.

Herman and Mandell (2000) highlight the malleability of virtual reality. Everything can be manipulated to suit the teacher; words, images and sounds can be altered. Postman (1985, 1992) describes technology as a mere machine but cautions that it is also a medium when it creates a social environment and insinuates itself into economic and political contexts. Postman (1995) compares technology to a language in its ability to predispose the user to favor and value certain perspectives and accomplishments and to subordinate others.

Every technology has a philosophy, which is given expression in how the technology makes people use their minds, in what it makes us do with our bodies, in how it codifies the world, in which of our senses it amplifies, in which of our emotional and intellectual tendencies it disregards. (p. 192)

Technology offers teachers the tools and the choice to "not be authentically present at all" (Herman & Mandell, 2000, para. 12). However, the same tools exist for teachers and learners to communicate, interact in a genuine fashion, and engage in mutual inquiry. The paradox presented by the use of technology in teaching and learning environments extends to the existence or nonexistence of creativity, reflection and authenticity depending on the willingness of teachers and students to honestly present themselves and their understandings.

*A creative, excited, charged learning community, one that experiences a heightened sense of creative tension, becomes authentic in the interaction of many individual self-identities, causing individuals to think and reflect in a continual cycle.*
Freire (1970) describes the act of knowing as a dialectical movement which goes from action to reflection and from reflection upon action to new action (p. 13). Dewey (1916, 1938) establishes a grounding philosophy for reflection in his belief that we learn from experience and reflection on experience and that one learns about education from thinking about life and one learns about life from thinking about education.


The complex and often contradictory meanings of reflection have been investigated to reveal significant impacts on varying research practices (Ecclestone, 1996; Fendler, 2003). Definitions of reflection and the varied use of terms (reflection, reflexivity, critical reflection) reveal differing theoretical orientations about reflection. The result is confusion about the meaning and uses of the practice of reflection. A lack of any common definition has resulted in the use of reflection and critical reflection interchangeably, a practice that results in contradiction of different ideologies, as reflection by itself is not necessarily critical. Fendler further highlights the complicated, complex, and often contradictory meanings of reflection and finds that “the arguments for reflection are so widespread and divergent that they often contradict each other” (p. 17).
One problem highlighted in the literature that is critical of teacher reflection is the very real possibility that reflective practices meant to challenge assumptions may in fact reinforce existing beliefs. As noted by Loughran (2002), "rationalization may masquerade as reflection" (p. 35). In a comparative study by Korthagen and Kessels (1995), insights suggested that there was "no indication of a link between reflectivity and inclination towards innovation" (p. 69). A further confusion is the major points of departure between the historical significance of Dewey's scientific reflection and Schön's artistic reflection resulting in tensions between "Schön's notion of practitioner-based intuition, on the one hand, and Dewey's notion of rational and scientific thinking, on the other hand" (Fendler, 2003, p. 19).

Cultural feminist research in education takes the position that established research methods utilize "masculinist" ways of thinking (Gmelch, 1998) and promotes alternative modes of knowledge production allowing "women's voices" to be heard (Belenky, et al., 1986). Richert (1992) and Noddings (1986) see one's "own intelligence" and "centre of knowing" as sources of empowerment found through claiming, experiencing, and honouring one's "voice." In these approaches reflection is constructed as a way of finding an authentic inner self in the form of an inner voice.

Cranton (2001) defined authenticity as the expression of the genuine self in the community. Cranton and Carusetta (2004) describe authenticity as a multifaceted concept that includes "being genuine, showing consistency between values and actions, relating to others in such a way as to encourage their authenticity, and living a critical life" (p. 7). Brookfield (1990, 1995) proposes that being an authentic teacher includes making sure
our behaviours and words are congruent, and Palmer (2000) discusses authenticity in terms of knowing our limitations as educators.

Cranton and Carusetta (2004) utilized a grounded theory methodology to explore authenticity in teaching by working with faculty from three university campuses in the Maritimes. Classes observed during the study were mostly face-to-face settings, with one exception that utilized audio conferencing. The interpretive analysis of field texts or “a tentative hypothesis” of the study suggests that “a sense of self is integral to authenticity,” as is “relationships with students.” Further insights support Cranton’s (2001) earlier work that “teaching is a social process that takes place in a context” (p. 21) and that the process of critical reflection is central to and in tune with both transformative learning and at least some conceptualizations of authenticity (Cranton & Carusetta).

Cranton (2001) suggests that teaching is a social process that takes place in a context. Palmer (2000) discusses context in terms of the limitations that can inhibit our authenticity as they are imposed by people and political forces that dictate prescribed procedures and methods. Barab, Squire, and Dueber (2000) in a collaborative study of university teachers and practicing K-12 teachers recognized that although authenticity appears to be central to constructivist theories, issues of what is authentic are not necessarily agreed upon. The study shared experiences of the use of emerging technologies to create an authentic learning context, and the authors assert that authenticity cannot be placed “in the individual, the task, or in the community, but [finds its] place in the meaningful relations that connect all three” (p. 59).

note that students and teachers can make good use of technology to create opportunities for genuine interaction and mutual inquiry but again highlight the paradox that this possible power can also hold students and teachers within its control. They further stress the importance of integrity, trust, and respect and highlight the ironic possibilities of a virtual reality that promises control but authentically offers us the choice to be free and vulnerable together in a world in which teaching and learning are acts of love.

*I believe that to understand in a human dimension is to understand a narrative or a story.*

Bruner (1986) explains that we construct ourselves through narrative and make sense of our lives by telling stories of our lives. Carter (1993) states “in creating stories, we are able, therefore, to impose order and coherence on the stream of experience and work out the meaning of incidents and events in the real world” (p. 7). Clandinin and Connelly (2000) cite that the “contribution of narrative inquiry is more often intended to be the creation of a new sense of meaning and significance with respect to the research topic than it is to yield a set of knowledge claims that might incrementally add to knowledge in the field” (p. 42). Clandinin and Connelly (2000) assert that narrative inquirers create texts that offer readers ways to imagine their own teaching and learning applications rather than describing general applications and uses.

A large body of literature on teacher education is based on narrative inquiry (Beattie, 1997, 2000; Clandinin and Connelly, 1995, 1996, 2000; Connelly and Clandinin, 1986; 1994; Knowles and Cole, 1994; Cole and Knowles, 2000). Narrative and story is a process of knowledge-making that provides a framework for the construction of
professional knowledge in teaching (Clandinin & Connelly, 1990). Beattie (2000) states that

stories become the frameworks within which experience is reflected upon, shared and reconstructed in the light of new insights, perspectives, experiences and understandings. When it is understood that personal, familial, social, cultural and organizational stories are temporal arrangements of the way things are, and that these taken-for-granted stories can be re-scripted, there is the potential for change and transformation in personal lives, classroom situations and social and organizational settings. (p. 4)

Learning and teaching are transformative.

The theory of transformative learning has been developed by Mezirow with the central themes of experience, critical reflection, and rational discourse. Mezirow (1997) describes transformative learning as a process where individuals learn to make their own interpretations by critically reflecting on their assumptions, beliefs, and judgements and then think autonomously to bring about new ways of defining their worlds. Differing views of transformative learning and varied examples of how it occurs in practice suggest that no single mode of transformative learning exists (Cranton, 1994; E.W. Taylor, 1998). As discussed earlier, similar discrepancies exist in the literature regarding reflection and critical reflection.

Osborne and Brady (2000) write about the stories of their work teaching art and science to practice teachers and small children. They describe children as mysterious and transformative and explore the qualities of teaching that cause joy. "Joy, the emotional, spiritual, transformative state, is found through experiences in which multiple ways of
knowing/ways of experiencing occur. It is achieved through both a consciously and unconsciously chosen limiting of our control of the environment” (para. 3).

Osborne and Brady (2000) emphasize that the process of teaching and learning found in the stories we tell involves not just our intellect but our whole person. When they reflected on their experiences they felt that pursuing this way of knowing drove their research and their teaching and perhaps made a statement about a basic drive of the human condition. The researchers recognized a paradox in their transformation of a passive need to let go of control combined with an active one to create conditions under which joy (transformation) occurs.

*When viewed as a creative process, the use of information technology in the learning community takes on a very different role in education, one that can be seen as completely opposite to progressive efficiency.*

The processes of reflection, narrative inquiry, and qualitative research share a common purpose. Each process offers the researcher the opportunity to become conscious of assumptions and practice so that this knowledge can be used to further their understandings of their field. Schön (1987) asserts that practitioners need to study their own practice and generate their own personal theories out of that practice. Palmer (1998) states that reality is a web of communal relationships, and we can know reality only by being in community with it. Reality can be compared to the development of theory.

Richardson (2000) uses the metaphor of a spider web to understand the idea of a theory. The structure of a spider web is intricate and when one part is touched, the whole web vibrates. Similarly, theory attempts to illuminate one part or aspect of an idea but it
can be interpreted any number of ways depending on where the theory is scrutinized. Like a spider web a whole theory can be ruined with a very minute touch.

Connelly and Clandinin (1994) describe experience and experiential research as messy. Relating and making connections between and around varied experience is difficult. Stories can be extremely hard to follow, and it is also very difficult to put all the storied individuals on one page.

The model of community as described by Palmer (1998) seeks to embrace, guide, and refine the mission of knowing, teaching, and learning: the mission of education. For Palmer, the development of community happens in a space where truth is practiced. When teachers and students share teaching and learning stories, models of community, trust, and authenticity are presented. Stories are offered so that others in teaching and learning communities are invited to begin their own stories and develop their own theories. Teachers who research collaboratively and in community, like spiders who weave a web together, can build a more intricate web, imagine a richer theory, and enrich a shared field.

The literature review reveals that learner-centred, community models to support learning are advocated for and supported by educators, researchers, and policymakers, but little is known about their educational value. A large body of research exists to support a social constructivist approach to learning through educational technologies, but evidence indicates that a more traditional, teacher-centred approach dominates technologically enhanced learning environments. Further research has indicated that claims and assumptions are made about community, reflection, and constructivism, but the terms and concepts are not clearly defined. The term reflection has many complex
and contradictory meanings in research literature, and the result is confusion not only about the meaning of the term but about its use in educational practice. Further research indicates that the meaning of technology itself is unclear and that as a tool it offers educators the freedom to choose to be authentic or not to be authentically present at all.

The methodology of this research study as described in Chapter Three represents an attempt to convey the "living theory" of 3 practitioners. Research participants engaged in a social constructivist process and through critical reflection on their practice created a theory of teaching and learning with educational technologies. When these teaching stories are considered and reflected upon by like-minded practitioners, their future practice, within similar constructs and environments, may be significantly informed.
CHAPTER THREE: METHODOLOGY AND PROCEDURES

In Chapter One I began a narrative journey of teacher authenticity and self-reflection in technological environments by sharing some of my own experiences that served to highlight a personal history of critically reflective practice in teaching and learning communities. The significance of these teaching stories to my praxis was highlighted by the support of research grounded in reflective practice, authentic teaching within a community, social constructivism in learning environments, and holistic and transformative pedagogies.

Chapter Two is a literature review where themes and research texts relevant to this thesis are classified and discussed to make clear the nature and parameter of my inquiry. The focus of chapter two is to delineate within related current and historical literature principal questions being asked; theoretical assumptions and biases; agreements and disagreements within the literature; and current research studies and the conclusions being drawn from them as they relate to my research focus.

In Chapter Three I describe the research methodology and procedures used in my inquiry, the study design rationale, the selection of participants, and the choice of research methods. The role of the researcher is outlined along with a discussion of field text analysis and collection, ethical considerations, and the use of a qualitative research model.

Behind and within each of these phases stands the biographically situated researcher. This individual enters the research process from inside an interpretive community. This community has its own historical research traditions, which constitute a distinct point of view. This perspective leads the researcher to adopt particular views of the "other" who is studied. (2005, p. 30)

Phase 1: The Researcher

As humans we all come to the research inquiry process with views, attitudes, and unique ways of thinking about the teaching and learning process and about inquiry itself. In using narrative as a method of inquiry, my intent was to guide participants in the telling of their stories and to encourage reflection without restricting their narrative focus. Participants in a narrative inquiry must be given an opportunity to tell their story in their own words, and as a researcher I must establish an environment of cocollaboration and trust so that their voices can be heard as well as mine. Behind every researcher stands a "personal biography" that impacts the researcher's voice. Every researcher "speaks from a particular class, gender, racial, cultural, and ethnic community perspective" (Denzin & Lincoln, 2003, p. 29).

As a feminist I believe in a holistic concept of self and community and honour the role of humanistic socially constructed relationships in the coconstruction of knowledge within the framework of narratives and stories. My beliefs have a particularly strong influence on the way I "speak" and are evident in my "research voice." Mary Beattie (2000) describes a strong narrative construct in relation to curriculum. Similar temporal arrangements are present in narrative, reflexive research inquiries.
In a narrative, holistic conception of a curriculum for teacher education, narratives and stories become the frameworks within which experience is reflected upon, shared and reconstructed in the light of new insights, perspectives, experiences and understandings. When it is understood that personal, familial, social, cultural and organizational stories are temporal arrangements of the way things are, and that these taken-for-granted stories can be re-scripted, there is the potential for change and transformation in personal lives, classroom situations and social and organizational settings. (p. 4)

**Phase 2: Interpretive Paradigms**

Interpretive paradigms are characterized by a belief in a subjectively based, socially and culturally constructed reality. For the purpose of this study both a constructivist and feminist paradigm were utilized.

*Constructivist Paradigm*

This narrative, reflexive inquiry utilizes a constructivist framework and embodies the perspective that self-identity and experience are culturally and personally constructed and cannot exist in a separate objective zone. “The constructivist paradigm assumes a relativist ontology (there are multiple realities), a subjectivist epistemology (knower and respondent co-create understandings), and a naturalistic (in the natural world) set of methodological procedures” (Denzin & Lincoln, 2005, p. 24).

Narrative inquiry work shares aspects of ethnographic and phenomenological approaches to research and narrative inquiries are strongly autobiographical. According to Clandinin and Connelly (2000), researchers “keep in the foreground of [their] writing a narrative view of experience, with the participants’ and researchers’ narratives of
experience situated and lived out on storied landscapes as [their] theoretical methodological frame” (p. 128). The methodology of this inquiry was naturalistic and interpretive, and emphasis was placed on accessing the lived experience of participants through the use of loosely structured interview conversations and my own narrative and research reflections, gathered in a research journal, to support the gathering of field texts. During the narrative inquiry process transcriptions of the interviews and my research journal were used as field texts. These field texts were then used to further construct research texts. “Field texts have a recording quality to them, whether auditory or visual. Research texts are at a distance from field texts and grow out of the repeated asking of questions concerning meaning and significance” (Clandinin & Connelly, 2000, p. 132). The process of inquiry was a collaborative endeavour in this qualitative investigation, as the “researcher” and the “subjects” had direct experience of the phenomenon under consideration, and through the sharing of experience, perceptions, and realities, pedagogical issues and insights might be gained, leading to informed and improved teaching practice. The process of inquiring into the teaching experiences of the participants within a narrative framework fostered the emergence of insights, deeper meanings and understandings of their lived experiences. At times, while conversing during the interview process, both participants seemed to have moments of heightened realization of their teaching insights. One participant spoke fervently and eloquently of her strong belief that educational technologies utilized in the classroom couldn’t help but increase authenticity, because they are “so authentically you [the teacher] and the students.” But, almost as quickly, after a brief moment of reflection, she stated just as emphatically, her
belief that they also give teachers the power to present themselves as something they are not.

Feminist Paradigm

A further paradigm utilized in the inquiry is one that is feminist. “In feminist research approaches, the goals are to establish collaborative and nonexploitative relationships, to place the researcher within the study so as to avoid objectification, and to conduct research that is transformative” (Creswell, 1998, p. 3). During the interviews I attempted to foster authenticity through a demeanour of genuineness, active listening techniques, and a transparent sharing of my own preconceptions, values, and beliefs. The research inquiry is collaborative in nature, and the work of interpreting field texts involved me as the inquirer and the participants within a coconstructivist environment. Participants took an active role in the validation of my interpretations through elicited input of their reflections and insights.

Phase 3: Research Strategies

The following three sections describe the design of the inquiry as well as the narrative and reflexive frameworks that were utilized.

Design of Inquiry

The purpose of this narrative inquiry was to discover the essence of experience of 3 women who utilized educational technologies in their teaching and learning communities in an Early Childhood Education program at an Ontario College located in a large urban centre. The educational technologies highlighted in the inquiry were digital videos of children and the audible teacher voice in online Early Childhood Education courses. Common experiences found within participants’ teaching stories gave meaning and
insight to inform my own practice and may serve to inform the practice of other teachers who seek authentic, reflective practice in educational environments that utilize educational technologies. The central research focus can be defined as a narrative inquiry of reflection and an authentic presentation of self in the utilization of educational technologies in teaching and learning environments.

The research motive of narrative inquiry is not to develop universal principles and theories but to uncover through a process of sensitive, responsive inquiry within a relational stance, commonalities of experience among teachers who utilize educational technologies in their practice. Understandings and insights gained during the investigation might inform teaching praxis and lead to sound pedagogy/andragogy in teaching and learning communities enhanced by educational technologies.

Narrative Inquiry

The contribution of narrative inquiry is more often intended to be the creation of a new sense of meaning and significance with respect to the research topic than it is to yield a set of knowledge claims that might incrementally add to knowledge in the field. (Clandinin & Connelly, 2000, p. 42)

The narrative inquiry approach to research was utilized as an analytical framework to illuminate the stories of participants and to suggest a set of understandings. The task as a narrative inquirer was to become aware of the many narratives within the inquiry space, imagine connections among these narratives and anticipate the emergence of new threads of narrative during the process of inquiry.

The research framework is based on Clandinin and Connelly’s (2000) three-dimensional narrative inquiry space and derives from Dewey’s view of experience,
specifically the constructs of situation, continuity, and interaction. The construct of interaction was utilized to examine participants' personal narratives of teaching and their social engagement in the process of participating in teaching and learning communities enhanced by educational technologies. The construct of continuity was examined as participants' lived experience was examined on the continuum of past reflections, present experience, and future possibilities for teaching practice. The construct of situation was examined in terms of the significance of place: teaching within a college, in virtual time, and within a particular political educational environment.

*Reflexive Inquiry*

Reflexive inquiry (Cole & Knowles, 2000) shares many similarities with critical reflective inquiry (Brookfield, 1995; Schön, 1983), as both are concerned with the examination and refinement of teaching practices and both challenge the assumptions behind all practice and then subject them to questioning. Reflexive inquiry assumes that "teaching and teacher development are rooted in the personal" and "situated within the context of personal histories in order to make connections between personal lives and professional careers" (Cole & Knowles, p. 2). I believe that the heightened focus on reflexive inquiry helps readers to situate themselves within the text and to relate themes and insights to their own teaching environments and their own practice.

Reflective inquiry sometimes utilizes an autobiographical lens as a basis to become critically reflective about teaching, whereas reflexive inquiry is always autobiographical and takes into account the personal history, contextual understanding, and the foundational place of experience in the formulations of practice. Further, reflexive inquiry is rooted in a critical perspective characterized by interrogation of status quo
norms and practices, especially with respect to issues of power and control (Cole & Knowles, 2000).

Teaching is, among other things, relational and practical. Understanding teaching requires an understanding not only of oneself as teacher but also of the relationships that define teaching life...and the actual practices in which one engages in everyday classroom activity. (Cole & Knowles, 2000, p. 95)

The process of teaching is a very individualistic endeavour and involves a process that is very complex and contextual in nature. “Teaching is inquiry, and understanding and improving teaching comes through ongoing reflexivity- that is, turning one’s teaching and all that embodies it back on itself for examination and insight” (Cole & Knowles, 2000, p. 87).

I believe that the best way to understand teaching is to listen and talk with colleagues in an empathic and focused way. Engaging in research conversations, a less formal approach than structured interviews, provides invaluable information to the research inquiry and establishes a framework that allows participants to restory teaching and learning experiences and thereby enhance the reflexive process.

**Phase 4: Methods of Collection and Interpretation**

Selection of participants and ethical considerations are discussed in the next section along with a description of the interview questions and structure, the development of narrative accounts from the interviews with participants, and the use of a research journal as a further field text.
Selection of Participants

My own teaching stories were told as well as the stories of 2 other participants. The participants were purposively selected because they have experienced the phenomenon of teaching with educational technologies. The educational technologies highlighted in the collection of field texts were digital video of children and the importance of an audible teacher voice in online courses. All participants are middle aged, middle income women teaching in a postsecondary institute in a large urban area, and all have designed and taught online courses in Early Childhood Education. One participant has taught at the college for several decades and the other two have been in the faculty for over a decade each. All participants in the study were asked to engage in a two-part interview process that involved active self-reflection and self-disclosure about their experiences with educational technologies in teaching and learning communities. The participants were contacted in person and given a letter of invitation.

Ethical Considerations

Ethical approval was obtained for the research from all educational institutions encompassing the teaching and learning communities involved in the inquiry (see Appendix A). The confidentiality of research participants was maintained through careful consideration of the protection of personal identities. Each participant signed an informed consent to voluntary participation and consent to audio tape. Participants were assured confidentiality and given a detailed description of the nature of the inquiry. The names of participants were kept confidential through the use of pseudonyms.
Field Texts

Within a narrative inquiry framework field texts, according to Clandinin and Connelly (2000), are anything that constitutes the data in the inquiry. For the purpose of this inquiry the field texts include interviews, narrative accounts, and a research journal.

Unstructured Interviews

Unstructured interviews were one of the primary strategies for the collection of field texts in this research inquiry. The interviews were informal and conversational in nature. The unstructured format of the interviews was aimed at understanding complex teaching behaviour and reflections without imposing categories or limiting the field of inquiry. The primary focus of the interviews was to elicit participants’ stories of their experience with educational technologies in teaching and learning communities and to encourage deep levels of reflection without directing, limiting, or restricting their focus.

By using an unstructured interview approach I hoped to coconstruct participants’ experience in the form of reflective narrative accounts. My intent was to put my assumptions and categorizations in the background and to bring the experiences of the participants and their own conceptions to the foreground of the inquiry.

Three broadly focused questions were asked of each participant in the first interview (see Appendix B). The questions were designed to encourage story telling as a form of narrative inquiry and to establish an unstructured, open-ended interview process. The interviews were audiotaped. A second set of interview questions were developed (see Appendix C) after the first interviews were transcribed and listened to several times. These second interviews were also audiotaped. Each participant was interviewed twice
over a period of two months. The interviews were held at the postsecondary institute where the participants work, and each lasted approximately one hour.

Narrative Accounts

The first interviews with the 2 participants were audio taped. After each interview I transcribed the contents in full. Each line of the interview was numbered, and I created a column on the left-hand side of the transcripts to record my field notes. I listened to each audiotape recording at least four times using the Listening Guide as described by Miriam B. Raider-Roth (2005). The first time I listened to the interviews I focused on the stories and emerging narratives of participants. I focused on themes that arose and any possible issues with respect to teaching and learning environments and educational technologies as a tool. I also paid close attention to my own responses, questions, and insights that I wanted to ask about in the second interview. As the stories of participants caused me to reflect on my own narratives, I recorded these in my research journal.

During the second listening of the interviews I concentrated on how participants described their knowledge, philosophy, and work. Sentences that started with “I statements” were highlighted and then compared to the “we statements” in their narratives. I also listened for internal struggles, tensions, and challenges. Finally during the third and fourth listenings I focused on the emerging themes in the narrative and any tensions or contradictions within these themes.

The themes of creativity and challenge, authenticity, reflection, and relationships were examined within the personal narratives to gain further insight into the essence of participants’ experience. The themes were examined and notes made of the segments of the interviews related to the stated themes.
Using the constructs of "language of educational practice" as described by Connelly and Clandinin (1988), and based on the theory of "understanding practical and personal knowledge" as described by Elbaz (1981, 1983), narrative accounts were written for each participant. The language of educational practice "is a language of educational experience and thus is temporal, located in our past, present, and future" (Connelly & Clandinin, p. 60). The language constructs as defined by Connelly and Clandinin include: image, rules, practical principles, relating images, rules and principles, personal philosophy, metaphor, and narrative unity. Each narrative account was constructed in sections, each of which referred to one of the constructs.

**Image** is the first term in Connelly and Clandinin’s (1988) language of practice. Image is an embodied experience that a practitioner expresses or enacts in their practice or action. "Images as they are embodied in us entail emotion, morality, and aesthetics" (p. 60). My commitment to the creation and maintenance of community in teaching and learning environments is an example of image. The second term in Clandinin and Connelly’s constructs is **rules**. Rules are any number of separate practices that a teacher follows regularly and systematically in her teaching. These rules often begin with "I always..." or "I never..." In my own practice I have observed that “I never interrupt a student when they are speaking.”

A **practical principle** is a "more inclusive and less explicit formulation in which the teacher’s purposes, implied in the statement of a rule, are clearly evident" (Elbaz, 1983, p. 132). Practical principles are deliberate and emerge from a reflective process. I believe that an integral part of building community is to foster mutual respect. After reflecting on
classroom interactions I discovered that my students feel respected when they are given an opportunity to speak and are listened to in a way that is thoughtful.

Relating images, rules, and principles in the language of practice creates an embodied language (Connelly & Clandinin, 1988). “The terms interrelate at the level of words and symbols, but they also are part of the experience, the embodied action, of a teacher in the classroom” (p. 65). My image of a teaching and learning environment as a community governs my rule of giving students uninterrupted opportunities to speak, which has resulted in the practical principle of mutual respect.

Personal philosophy gives insight into teaching practices, beliefs, and values. “Personal philosophy is what we respond with when someone asks us as teachers what we believe about [students], about teaching and learning, or about curriculum...it is our beliefs and values contextualized in our experience” (Connelly & Clandinin, 1988, p. 70). Personal philosophy is often expressed in the form of a narrative of experience. When I reflected on my practice and teaching experiences, my belief in the importance of opportunities to share stories in teaching and learning communities was contextualized with my realization that learning with educational technologies can lead to the loss of these crucial stories if our focus is on the tool alone. The loss of story places the community at risk, and without community there is no respect.

Metaphors are a way to understand the actions and practices of teachers, and they structure a range of curriculum practices (Connelly & Clandinin, 1988). As I stated in Chapter One, I believe educational experiences are very much like gardening. My personal metaphor for teaching as it relates to empowerment and democracy is likened to
the way I might nurture fledgling plants. My commitment to supporting community can be likened to the care needed to ensure a garden grows.

Connelly and Clandinin (1988) invite us to understand narrative unity as “a thread or theme that runs through the narrative of experience and that provides a way to see how the rules, principles, images, and metaphors relate one to the other as they are called out by the practical situations in which we find ourselves” (p. 75). Regardless of the teaching environment I find myself in, the themes of community, reflective practice, authenticity, and creativity continually surface. Rereading my personal narrative as it has been conveyed in this thesis, I realized that none of these themes can be overlooked or excluded in my teaching practice and that I actively seek out opportunities to honour all of these themes. “Ongoing life experience creates the narrative unity out of which images are crystallized and formed when called on by practical situations” (Connelly & Clandinin, 1988, p. 75).

Connelly and Clandinin (1998) caution that “narratives are too complex to summarize neatly” (p. 77), but the use of a “language of practice” allows for the construction of a narrative account. Using the constructs of “language of practice,” I hope to have told my teaching story and the teaching stories of the participants with new insights and a heightened vision.

A Second Interview

After the first narrative accounts were constructed, I shared them with the research participants to check for accuracy and to ensure that the story reflected each individual’s critical lens as it relates to philosophy and pedagogy. I made every attempt to check with participants that they “hear their own narrative voice.”
Based on the initial conversations with participants and the examination of themes and narrative accounts, a second set of questions was developed to use as a springboard to elicit further details regarding the meaning of experience to the participants, specifically as they related to the presence of creativity and challenge, authenticity, and reflexivity. The questions were developed after the first interview (see Appendix C).

My own narrative account was constructed from my research journal. As I engaged in conversations and unstructured interviews with participants, I kept a research journal of reflections on the inquiry process. The narrative accounts of participants served as a further springboard for me to construct my own teaching and learning stories and to reflect on the tensions, consistencies, inconsistencies, and varied perspectives of our narrative accounts.

The second interview was audiotaped and transcribed in full shortly after the conversation. Again, I listened to the interviews at least four times, made notes in the left column, and wrote my reflections and my own narrative accounts in my research journal.

A second narrative account was written, using themes that had emerged during the first interview as constructs, specifically creativity and challenge, authenticity, reflexivity, and a further unexpected theme of relationships.

*Research Journal*

My own reflections and perceptions were an essential part of the collection of field texts. During my research I maintained a research journal to record my thoughts and insights. This form of field text is important in the process of constructing knowledge during the research inquiry. “Field texts slide back and forth between records of the experience under study and records of oneself as researcher experiencing the experience”
(Clandinin & Connelly, 2000, p. 87). During the research inquiry I attempted to make note of all the relational circumstances, temporally, spatially, and in terms of the personal and the social, both of my past experiences with educational technologies and my reflections on my experiences while conducting the interviews.

The field texts created may be more or less collaboratively constructed, may be more or less interpretive, and may be more or less researcher influenced. It depends.

Researchers need to be attentive to this and need to write journal entries that portray the relational circumstances of the situation represented in the field text. (Clandinin & Connelly, 2000, p. 95)

The notes I maintained in the sidebar of the transcribed interviews were critical to the later writings of the narrative accounts, as they highlighted my thoughts and insights as I listened to the interviews.

*Field Text Interpretation*

Field text collection and interpretation took place simultaneously in this research inquiry, as critical reflection and the coconstruction of meaning took place during the participant interviews and during the construction of the narrative accounts. After the interpretation of the first interviews and the construction of the first narrative accounts, the second interview questions were developed to further explore emerging themes and constructs. The construction of the second narrative accounts was compared to the first narrative accounts, and insights and reflections were recorded in my research journal. Themes of reflection, authenticity, creativity, and relationships were examined within both narratives, critically reflected upon and then communicated in the final chapter.
Phase 5: The Art, Practices, and Politics of Interpretation and Evaluation

Qualitative research does not capture objective reality. We can only hope to know of something through its representation; through stories, reflections and insights of personal and coconstructed knowledge. "The interpretive practice of making sense of one's findings is both artistic and political. There is no single interpretive truth. There are multiple interpretive communities, each with its own criteria for evaluating an interpretation" (Denzin & Lincoln, 2003, p. 37).

Interpretation Within a Qualitative Research Design

Qualitative research methodologies are naturalistic and contend that multiple realities exist and must be recognized by giving attention to group and individual constructions and perceptions of reality. A qualitative research inquiry was appropriate for this investigation as it uses a naturalistic approach that seeks to understand a phenomenon in a context-specific setting. As a framework for inquiry in the teaching and learning community, qualitative research is fitting as it accepts the complex and dynamic quality of the social world.

Subjects, or individuals, are seldom able to give full explanations of their actions or intentions; all they can offer are accounts, or stories, about what they did and why. No single method can grasp all of the subtle variations in ongoing human experience. Consequently, qualitative researchers deploy a wide range of interconnected interpretive methods, always seeking better ways to make more understandable the worlds of experience they have studied. (Denzin & Lincoln, 2003, p. 31)

One of the challenges of utilizing a qualitative, narrative approach is the necessity to provide a rich description of participants' experience in order to enable the reader to
sense what participants have experienced and in turn to relate it to their own practice. A further challenge is the task of interpreting field texts in a way that conveys the critical lens of the researcher but also honours the critical lens of the participants. As much as possible, participants “voices” must be heard within the research text in a manner that is as authentic as possible.

Much of the research design emerged as the research unfolded. Constructs were used to guide interview questions, but the need to encourage authenticity and reflection necessitated an unstructured approach to the inquiry, which may have resulted in a weakened focus on the phenomenon being studied. As well, I was both a researcher and a participant. Filtering my beliefs and my critical lens from the stories of other participants was a challenge.

Participants in the research inquiry contributed to the interpretation of the field texts by reading their narrative accounts to insure accuracy and authenticity before the second set of research questions were developed. Neither participant suggested any revisions to the narrative accounts. All narrative accounts were interpreted using the same two sets of constructs. Because of the unstructured nature of the field text collection, at times the chosen constructs were not as evident in the interviews.

Criteria for Judging Adequacy

Quality and trustworthiness, credibility, transferability, and confirmability were the criteria used in this research inquiry to ensure adequacy while recognizing that multiple interpretations are possible and likely in qualitative research designs.
Quality and Trustworthiness

Bullough and Pinnegar (2001) outline several guidelines for quality in naturalistic inquiry methods that rely heavily on biographical field texts.

Articles need to be readable and engaging, themes should be evident and identifiable across the conversation represented or the narrative presented, the connection between autobiography and history must be apparent, the issues attended to need to be central to teaching and teacher education, and sufficient evidence must be garnered that readers will have no difficulty recognizing the authority of the scholarly voice, not just its authenticity. (p. 20)

Every effort was made to honour these guidelines and to ensure a measure of quality. I remained conscious in the interpretation of field texts of the need to “provok[e], challenge, and illumina[te] rather than confirm and settle” (Bullough & Pinnegar, 2001, p. 20).

Credibility

Research within a naturalistic framework assumes the presence of multiple realities. When credible, these multiple realities are represented adequately and authentically. Credibility depends less on sample size than on the richness of the information gathered and on the interpretation abilities of the researcher (Patton, 1990, 2001). Credibility will be enhanced by triangulation, as the phenomenon will be explored through the stories and critical lens of several participants.

Triangulation is the process of corroborating evidence from different individuals, types of data [field texts], or methods of data collection [gathering of field texts]...This ensures that the study will be accurate because the information is not drawn from a single source, individual or process of data collection [gathering of field texts]. In this way, it
encourages the researcher to develop a report that is both accurate and credible” (Creswell, 2002, p. 280).

The field texts in this research inquiry are triangulated over time (the space of 2 months during the interviews as well as the many years participants have utilized educational technologies), space (both the classroom face-to-face space as well as the online or virtual space is explored), several different teaching and learning communities (each participant has several classes of new students each semester, and participants teach that different campuses), and persons (3 unique individuals).

Triangulation is an attempt to secure an in-depth understanding of the phenomenon being studied in a research inquiry. “Triangulation is not a tool or a strategy of validation, but an alternative to validation” (Flick, 1998, p. 230). Richardson (2000) disputes the concept of triangulation, asserting that the central image for qualitative inquiry is a crystal. Crystals reflect and refract within themselves in many different directions and in the “crystallization process” of research inquiry, the writer tells the same tale from different points of view.

Viewed as a crystalline form, as a montage, or as a creative performance around a central theme, triangulation as a form of, or alternative to, validity thus can be extended. Triangulation is the display of multiple, refracted realities simultaneously. Each of the metaphors “works” to create simultaneity rather than the sequential or linear. Readers and audiences are then invited to explore competing visions of the context, to become immersed in and merge with new realities to comprehend. (Denzin & Lincoln, 2005, p. 8)
Multiple realities were represented in this research inquiry through the narratives of 3 teachers, and these realities were refracted as participants storied and reflected in the research inquiry process. Narrative accounts that reflect the varied voices of participants were unveiled simultaneously and illustrated multiple realities, like the many reflections and refractions of the crystal. Readers of the research inquiry might reflect, develop their own contextual understanding, and develop their own emerging reality as it relates to the text.

Transferability

"In the naturalistic paradigm, the transferability of a working hypothesis to other situations depends on the degree of similarity between the original situation and the situation to which it is transferred" (Hoepfl, 1997. p. 13). I endeavoured to provide sufficient detail in each teacher's narrative account for the reader to determine the extent to which the insights, reflections, and knowledge conveyed are applicable to their own unique teaching and learning communities.

Confirmability

Every attempt was made to demonstrate the neutrality of the research interpretations while recognizing that qualitative research inquiries by nature are value-bound and subjective. The research inquiry was conducted within a nonjudgmental, balanced stance. All attempts were made to strive for "empathic neutrality" (Patton, 1990, p. 55), a concept proposed by Patton (1990, 2001) that takes two apparently contradictory words and pairs them in an approach where "empathy is a stance toward the people one encounters, while neutrality is a stance toward the findings" (2001, p.58). Research interpretations were shared with participants to ensure that participants heard their voice
in the field texts. Narrative accounts were given to each participant after they were written to check for accuracy and authenticity.

**Conclusion**

“We are in a new age where messy, uncertain, multivoiced texts, cultural criticism, and new experimental works will become more common, as will more reflexive forms of fieldwork, analysis, and intertextual representation.” (Denzin & Lincoln, 2003, p. 38).

My hope during this research inquiry is to order some of the mess, suggest the possibility of some certainty, at least with respect to my own beliefs and practice, to give voice to a few texts and teachers, honour culture, contribute new work, model reflection, and produce trustworthy, quality fieldwork and analysis.
CHAPTER FOUR: INTERPRETIVE ANALYSIS OF FIELD TEXTS

The purpose of this narrative inquiry is to communicate the teaching stories of 3 teachers who have experienced educational technologies and to discover the essence of their experience. All participants are women with degrees in education and all teach in an Early Childhood Education program at an Ontario College located in a large urban centre. One participant has taught at the college for several decades, while I and the other participant have been teaching there for over 10 years. We are all middle aged women, born, raised and educated in Canada, and would be considered middle income.

Unstructured interviews were carried out over a 2-month period with 2 participants who discussed their experiences of teaching in environments that utilized educational technologies. During this time I kept a research journal to record reflections on my own teaching stories that emerged as I listened to and considered the narratives of the inquiry participants.

My own narrative accounts and those of the 2 teacher participants were used to highlight major themes that emerged from the interviews and my research journal. The field texts from the first interview will be communicated in a narrative format using the constructs of the language of educational practice according to Connelly and Clandinin (1988). The field texts from the second interview are also relayed in a narrative format, using the emerging themes from the first interviews as constructs. The themes are challenge and creativity, reflection, authenticity, and relationships. Every effort was made to bring together my understandings and interpretations in a way that is coherent and that honours the stories of participants as well. My final thoughts and conclusions will be included in Chapter Five.
The interviews were transcribed in full shortly after they were conducted. Each line of the interview was numbered, and as I listened to the interviews I made notes of my thoughts, reflections, and the emerging themes in a sidebar. Each interview was then listened to at least four times using the Listening Guide as described by Miriam B. Raider-Roth (2005). The first time I listened to the interviews I focused on the stories told by participants, concentrating on issues and themes that arose. At this time I also paid close attention to my own responses, questions, and confusions. As the stories of participants caused me to reflect on my own narratives, I recorded these in my research journal.

During the second listening of the interviews I paid close attention to how participants described their knowledge, philosophy, and work. Sentences that started with "I statements" were highlighted and then compared to the "we statements" in their narratives to make clear internal struggles, tensions, and challenges. Finally, the third and fourth listens focused on the prevailing themes in the narrative and any contradictions and more specifically tensions within these themes.

**Narrative Accounts: First Interview**

I began the first interview with both participants by asking them what motivated them to teach using educational technologies, followed by an inquiry about how they came to be involved in teaching environments that utilized educational technologies, and then invited them to talk about some of their experiences. The contents of the first interviews are constructed below, starting with a brief summary of participants' first thoughts and then followed by headings using the constructs of rules, practical principles, relating images, rules and principles, personal philosophy, metaphor, and narrative unity as
described by Connelly and Clandinin (1988). The constructs according to Connelly and Clandinin represent the language of educational practice, they are part of our teaching and learning experience, and they may be used to help tell narratives.

*First Thoughts*

For Joy, the motivation to teach using educational technologies was "a challenge." During the interview she says, "I’m a risk taker, I’m a person that doesn’t like to stay and stagnate in one place, I’m always looking for continuous improvement in my practice." Joy’s involvement in teaching environments that utilized educational technologies came to her as an invitation from a colleague. As Joy describes her early experiences, the theme of challenge emerges again. "To be honest, at the time it was something I really hadn’t thought of on my own; it was somebody else at the college who was exploring this and sort of said ‘do you want to go along for the ride?’ and I did. So I saw it as a challenge and, well, if they’re so excited about it and they think this is the new direction and where we go and they’re saying come along and work on this with me, I said sure."

When Joy tells me about some of her experiences of teaching and using educational technologies, she always speaks passionately about her students. "I couldn’t do it if I didn’t have those students that call me up at home, asking me for advice 2 years after they graduate, that’s to me, it’s that relationship." The theme of relationships was strongly conveyed in my first interview with Joy. Joy rarely spoke of teaching without some reference to her students and described how her acceptance of challenge impacted her students as well. "It helped me to recognize the need for my students to take on challenges and not to stagnate."
For Hope, the original motivation to utilize educational technologies was to investigate them as a medium that would allow her to explore the implications of her ability to communicate as a teacher. She explains her motivation as if the process were an inquiry into possibilities. “I thought that obviously there’s changes occurring in our capacities to communicate as an overall society, and I thought, well, I wonder how that implicates my ability to communicate as a teacher.” Later in the interview, Hope also speaks of the need for challenge. She says, “I like the element of the unknown” and “I see somewhere to go and something to explore...that’s usually it, and it’s also related to boredom.”

As Hope describes her experiences with educational technologies she speaks excitedly about the possibilities inherent in the medium. “I just thought this technology could be basically a new methodology for teaching in our field. And I’m really excited to be in a department where there are other people who are excited by this. Because it’s a big idea and now it’s more ubiquitous...it’s, you know, now it’s more a part of our culture.”

Most of the references to educational technologies in both of my interviews with Joy and Hope centred on the use of educational technologies to provide students with the opportunity to view video, both in the classroom and in online courses. Some discussion evolved about the use of discussion boards and how their use could help to connect the class outside of the classroom and build a sense of community. Hope also noted that discussion boards could be used to lessen face-to-face contact with students and perhaps make us poorer communicators in our teaching roles.

Joy’s first thoughts remind me of my need for challenge in my work. The development and use of educational technologies have given me many opportunities to
experience creative and artistic challenges. Like Hope, I am excited to explore the potential inherent in the use of educational technologies in teaching and learning communities and recognize that this medium has become a very significant part of our students’ cultures and may have a tremendous impact on the way we teach.

Images

“By image we mean something within our experience, embodied in us as persons and expressed and enacted in our practices and actions [italics added]” (Connelly & Clandinin, 1988, p. 60).

For Joy, the prominent image in our discussions during the first interview was one of community. Joy rarely spoke of teaching without some reference to the importance of building community with her students. “I tell them I’m trying to help build a community here, which is what Reggio is all about, so it’s very similar to what we’re learning about, so I want us to build a community of learners.” Joy goes on to explain her belief that learning needs to take place in an environment that honours the principles of social constructivism. “I tell my students that we must get out of this competitive mode. Our North American society is pluralistic, it’s competitive, and it’s individualistic, whereas Italians in the Reggio Emilia approach, it’s much more collaborative, it’s a social constructivist environment, and it’s a supportive environment.”

The most prevalent image in my first interview with Hope was one of visual information. Near the beginning of the interview Hope describes her interest in visual information as her “research rider.” Hope is very interested in conducting formal research on the impact of educational technologies on education when they are studied as another language of learning. Hope explains. “I have an art background, so I tend to think of
visual information as, well, I look for meaning, because there are all kinds of visual information that comes our way that doesn’t necessarily resonate or have meaning.” Hope goes on to explain, “My intent is not only to explore technology, but it’s also to explore what I’ve learned from my background in visual art, working at the art gallery, you know, and touring different art galleries and communicating with people through visual language. I think the visual language component of what we do with this technology is also highly significant. It’s not just using the technology it’s almost getting scientific about it. Like, what is a significant bit of visual information?”

Later in the interview, Hope goes on to explain her vision of the potential inherent in educational technologies and, as before, her images are filled with art terminology. “Technological capacity is bringing that visual story to the viewer in synchronous time.” Hope makes many references to educational technologies in terms of their visual component, using terms like “visual story,” “visual medium,” “visual information,” and “visual language.”

Like Joy, a prominent image for me is one of community in the teaching and learning environment. Joy discussed her frustrations about teaching a class for the first time during our interview. “I’m frustrated this semester. In the past I’ve had a couple of really good semesters of discussion forums, but I’m trying to think back why. Because I had them in third semester, and then I had them again in fourth semester! So it’s not a brand new, and I think they see the value of it because they go on and they say that really was helpful and that’s what I’m trying to do in my fourth semester curriculum class, and I tell them I’m trying to help build a community here.”
I reflected on my use of discussion boards in my classes and remembered similar experiences. My third semester curriculum class had been with me since first semester, and they used the discussion board to continue discussions outside of class, to ask questions, and to support and challenge each other’s teaching philosophies. A true sense of community had developed in this class and was fostered further through the discussion forum. Having taught the same course again to a new group of third semester students, a group I had just met for the first time, I was excited to utilize the discussion board once again. One particular evening the class engaged in a rather heated debate about the impact of personal temperament on our choice of behaviour guidance strategies as teachers. The debate continued as the class came to a close and no one seemed to notice the time. I invited the class to continue the debate on the discussion forum, which I opened that night as soon as I got home. To my disappointment, few students logged on, and after a few weeks, many postings appeared, but they were not particularly interactive and certainly did nothing to build the feeling of community in the class.

I am not certain if the lack of participation in the discussion forum was because of the lack of an established relationship between me and the students, unfamiliarity with the tool (the students shared with me that they had never used the discussion forum before), or my failure to participate in the forum to any great extent. Joy theorizes about the factors that impact discussion forum use in our discussion and indicates that faculty participation is crucial. “But you really have to know how to use these discussion forums and it’s not just, it’s just like you have to post the right question. You have to support it in such a way, if you have a discussion forum and you as a teacher never goes on [pause]. If there’s a new posting I’ll see it and I’ll say something, and if I miss it, they’ll say ‘Oh I
posted something and you didn’t say anything, was it wrong, was it right?” Joy expresses the importance of the teacher’s role in making the discussion forum an integral part of the teaching and learning community. By treating students’ responses in the forum with the same respect that she would if they spoke in class, Joy fosters and supports an online community.

Hope’s image of educational technologies as a visual language resonated with me as well. While participating in the development of online courses I felt compelled to view each web page and every video with an artistic, critical lens. I spent many hours arguing with the production team about the importance of images and the huge “visual message” they conveyed. I fought actively against having images viewed as a way to “fill up white space” and advocated that they be seen as an educational medium whose value exceeded that of the written text.

**Rules**

“A rule of practice, according to Elbaz, is ‘simply what the term suggests – a brief, clearly formulated statement of what to do or how to do it in a particular situation frequently encountered in practice’ [italics added]” (Connelly & Clandinin, 1988, p. 63).

Joy speaks frequently in the first interview about the importance of not becoming a “talking head” or someone who lectures to students. She says, “We shouldn’t be lecturing in the classroom, we shouldn’t be lecturing online.” When discussing the development of online courses Joy states with emphasis, “it was all about creating a nontalking head, non-text-based course.” Later in the interview Joy describes her high level of comfort with course materials and content after many years of teaching and expresses that “I
know so much now about that particular subject I just could go on and on and on.” But Joy cautions that that technique would not be good because “it would just be me talking.”

Interestingly, Hope also refers more than once to the “talking head” image. As she describes her motivation for using educational technologies she says, “I got very tired of feeling like a talking head in the classroom.” Later in the interview Hope describes her feelings about teaching as she states, “I always thought that I shouldn’t be someone who was just imparting knowledge.” In relation to students, Hope describes her frustration with teaching. “I’ve always felt frustrated as a teacher in this field because I don’t think I get, had enough opportunity to teach from real circumstances with children, with the students, and I resisted in my own mind basically being a talking head.”

I don’t think I have ever felt like a “talking head” in any teaching or learning environment. My *rule* concerned the practice of ensuring that I honour the voice of students in my classroom and in any online environments I have had a part in developing by paying particular attention to discussion board opportunities. Ironically, the recorded “teacher insights” in the two online courses I coauthored are recorded in my voice. I must admit that at times when I hear these recordings I do feel like a “headless talker.” In class I find that very short videos are of greater value than the long 60-minute pieces I used to use in class. Short segments allow for greater student involvement in thoughtful and reflective discussions after the vignette ends.

*Practical Principles*

“A *practical principle embodies purposes in a deliberate and reflective way. The statement of a principle contains a rationale that emerges at the end of a process of deliberation on a problem* [italics added]” *(Connelly & Clandinin, 1988, pp. 64-65).*
Joy spoke of the importance of active learning many times in the first interview, a concept that seems to have become essential in her practice when juxtaposed to the idea of the “talking head.” At the beginning of the interview Joy discussed the use of video and the ability to stop the capture and elicit student input. When asked why she felt student input was important, she laughed and said,

Otherwise it’s just like watching TV. It’s just, you have to have it interactive. It helps to see but if it’s a passive learning situation by stopping it and getting the students involved and getting them interacting with each other and with me about what’s happening in the video, that they’re seeing makes it an active learning experience rather than a passive learning experience. It’s what we used to do, just show a video in the classroom and there, O.K., we covered such and such ‘cause we saw a video on it. To me, that never worked, just showing videos in a classroom, I have to make it interactive. I have to make it an active learning experience somehow.

Hope speaks frequently of the need for discovery in her teaching and learning environments. When discussing her motivation for teaching using educational technologies she says, “I thought that perhaps this new technology would allow me to basically change my position as a teacher in the classroom in that I could be someone who observes behaviour with students and invite them to discover what was going on.” Hope goes on to say, “it was just always part of my practice and my own training, you know, not to lecture but to discover.”

Hope goes on to describe one of her first experiences with video where a group of teachers examined the block play of young children. Hope reflects on the first time she shared this same video with students and says, “Then we started looking at the video and
again this is what video allowed me to do, as a teacher to discover, as well as the students.” Hope goes on to say, “I just think we should try and make as much of the learning here as student discovery as opposed to a student laid on or adapted bits of information.”

I believe in the importance of discovery and active learning but when I reflect on my classroom environments the importance of mutual respect and allowing student voices as well as my own voice comes to mind. I have always felt to some degree as if I was learning in tandem with students as we shared thoughts, ideas, and viewpoints. The use of video has heightened these opportunities in my classes.

I remember one video in particular that I shared with a class taking a foundational child development class. The video featured two young children experiencing separation anxiety, and it was extremely illustrative of the concept but also difficult to watch as one child in particular was so distraught. I spoke to the class about the added level of difficulty for this child as he spoke English as a second language. Shyly, one of my students put up her hand and told the class that the child was speaking Mandarin and she could translate what he was saying. There were few dry eyes in the class as she shared with us his pleading with the teacher to please tell him where his mother went, where he was, what was happening, how long he was staying, and was his mother ever coming back. The importance of separation anxiety to development reached a new level of understanding for me and the class with this unique video opportunity and very special student insight.

Like me, Joy speaks passionately about the importance of mutual respect when asked, “What’s essential in the teaching and learning community?”
I have to build a climate of respect and I have to do that in that I have to show respect for my students, and by doing that I earn respect. But it's also a respectful, reciprocal community where I don't have to know everything and I don't have to have all the answers but I really respect their input and ideas and respect that they're human beings with their own set of problems and their own set of circumstances and recognizing that what each brings to the classroom, and if I didn't have that, I couldn't do it, I couldn't do it.

Relating Images, Rules, and Principles

*These different terms in the language of practice, rule, principle, and image are terms in an embodied language. The terms interrelate at the level of words and symbols, but they also are part of the experience, the embodied action, of a teacher in the classroom* [italics added]. (Connelly & Clandinin, 1988, p. 65)

Joy's embodied actions seem to centre on her need to foster and facilitate environments that could be characterized as being social constructivist in nature. Joy goes on to explain her actions in the classroom when she says, "I know I learn better in a group situation, and I need to provide those same experiences for my students in an active way." Joy seems to compare her needs to those of students and make the assumption that they are the same. Hope, in contrast to Joy, reflects on the importance of discovery to herself and students and says, "Maybe I'm taking myself and thinking of students being like me, which is probably quite incorrect, but I just think we should try and make as much of the learning here as student discovery as possible." Hope shares her dreams of exploring the potential and possibilities for students inherent in the use of educational technologies in the first interview. She stresses the importance of discovery once again.
and then says, "so that's what I want to experiment with, what I hope our department can experiment with is how do we build authentic analyzers or authentic responders as opposed to going through in a certain sense the interface of me as a communicator? I would like to move or shift the role of myself as a teacher to being a viewer for the first time as well."

I asked Hope how educational technologies could change her relationship with students from what she described earlier as the "talking head," and she answered,

It would change my relationship because the students would still have to trust me, the students would still have to know that yes, this person does have a higher level, or a high level of interpretive capacity in relation to theirs because they would still have to trust what I say, but what I would want to happen first is to have them discover what is happening or what the developmental issues are or the curriculum issues or whatever. I want them to discover that because I think then, in that sense, they have authored it, they own it, and there's buy-in. And then I think once they're there and they feel empowered, they feel like I can do this, I'm really sharp, I can look at a group of kids and I can figure out what's going on and I can come up with an idea of how I might respond or whatever. So, it's really about empowerment of our students.

During my interview with Hope we had an interesting discussion about the use of video in a philosophy class that I had taught. While listening to the interview I reflected on this particular use of educational technology. I adapted an assignment that had been developed by another faculty member where students were required to go to culturally diverse areas of the city and reflect on their experiences. I changed the assignment from a verbal and written presentation to the optional use of video. Most of the students in my
class took the opportunity to record their trip on video and then showed and shared their experiences with the class. The added use of video greatly increased the class's involvement in the presentation. The student presenters displayed a higher level of reflection as they were asked more questions by the class and had to contemplate the experience to a greater degree. The students' demeanour indicated a high level of empowerment as they eagerly shared and participated in experiences that all were able to "see" and discover anew as we watched the video together.

**Personal Philosophy**

"*Personal philosophy is a way one thinks about oneself in teaching situations. Personal philosophy has within it a notion of beliefs and values* [italics added]"

*(Connelly & Clandinin, 1988, p. 66).*

When asked why she feels active learning experiences are essential to her to teaching and learning, Joy laughs and responds, "Well, it's my philosophy." When I invite Joy to tell me about her philosophy; her demeanour becomes more serious, and she says,

It's my philosophy. I believe very passionately about teaching in a social constructivist way, because I teach social constructivism, so how can I teach something and not model it? So, I believe that adults and children learn better in a social constructivist environment and particularly adult women and...which is Belenky's work in *Women's Ways of Knowing*. It works better, and I find it's more authentic to who I am because I know, I've tested myself over and over again with Gardner's Multiple Intelligences, and I always come out interpersonal.

Joy discusses her experiences during the development of two online courses, and the themes of authenticity and community surface again. "We moved into online
development, and that was a whole other kettle of fish, because again, who am I as a teacher, who am I as a learner, who are my students as learners, and how do you set up an environment that all can learn from, so that was very challenging, and I thought we did a really good job doing that, just having videos and interactives and text plus audio, there was so much.” Joy goes on to discuss how she taught the online course but still had the opportunity to see her students at an orientation and in their field placement. She says, “If I never got to see them I don’t know if I could do that, if that’s authentic to who I am, and I don’t know if I believe in doing it that way, ’cause I thought a lot about online courses, and I think there has to be some sort of element of community and building that community.”

Hope also speaks about authenticity, and when I asked her about her earlier use of the terms “authentic analyzers” and “authentic responders” in reference to students using educational technologies, much of her personal philosophy of teaching and learning became evident. Hope replied, “Well, I guess if I think about that, what I’m meaning is that the student; it’s personal, it’s looking and it’s thinking and it’s discussing, and it’s personal perception as opposed to information coming externally that is simply supposed to be memorized or internalized, it’s more invented.” Hope sat and thought for a few moments and then continued, “When I think of authentic I think of it as original, I think of it as meaningful, honest, as opposed to sort of performing for. As a teacher it relates for me too because, you know, slap it down in front of some students, right and that to me, that’s not authentic. I guess I have a deep belief in discovery in whatever I do.”

Joy discusses the use of presentation software (Powerpoint slides) in her classroom in relation to teaching authentically. Joy says, “It’s like when I used to make fancy
overheads with coloured pictures, Powerpoints are the same thing. I find I spend way too
much time trying to make a fancy Powerpoint, and if I just go through the Powerpoint,
and not add to it, it doesn’t feel right anymore, it doesn’t feel authentic. So I don’t know
if I even like Powerpoints anymore.” Joy goes on to say that she thinks perhaps she is
becoming a Luddite. (A Luddite is someone who rejects the need for and the use of
technology). She says about technology, “If it went, it wouldn’t bother me; if I lost it all
at this point.”

At the time of the interview I thought a lot about Joy’s comment and the idea of losing
all technology. I wondered how much I would be bothered if all the capacities inherent in
educational technology were lost. Ironically only 2 days later the computer was down in
my wired classroom and I was unable to access the Powerpoint, links, and videos that I
had placed online. I sat on a desk, something I rarely do, put all my notes aside, and
talked to the class for 3 hours. We shared a feeling of openness and an intimacy that, to
be honest, I had not felt for some time with this group I knew so well. I was humbly
reminded of the potential of technology to create distance in the class and felt grateful for
the opportunity to be reminded of the importance of connections and relationships in the
classroom.

Hope speaks passionately about the importance of human connection in online
courses. “There’s all kinds of ideas of what an online course might be, but when I was
thinking about that online course, I think that voice is important, and so I didn’t want
them to see this as some sort of digital construction that wasn’t associated with a
teacher’s brain or a teacher’s authentic view of things. So, in the course I thought well,
I’d like to have a human voice in the course, because I thought that in an electronic world a voice makes it seem more grounded, more connected to people rather than machines.”

Hope’s articulate description of the importance of a human voice caused me to reflect on one of the online courses I had developed. The course focused on child development, and I had a vision of making the students’ experiences as connected to real people as possible. As a result I used my own pregnancy journal, images of my children, and videos showing their growth. By the end of the course, my hope was that students would feel a connection to me as a teacher through the many teacher insights but that, as in my face-to-face classes, they might also feel a connection to my most important career as a mother of two children.

Metaphor

“We view metaphors as important parts of our personal practical knowledge and as a central form in our language of practice. We understand teachers’ actions and practices as embodied expressions of their metaphors of teaching and of living [italics added]”

(Connelly & Clandinin, 1988, p. 71).

Joy does not speak directly of her own metaphor in the first interview but does talk at length of the importance of metaphors for student teachers. Joy describes the use of the discussion board to encourage students to talk about their metaphors. “I will say tell me about your metaphor for teaching and learning, and we’ll have a discussion forum just on metaphors. I had one student go on and she had a fabulous metaphor about the eye being the window of the soul as her metaphor of working with children, and she goes, it’s really bizarre. I’m not sure I’m going to use it. And then other students go on and say what are you talking about, it’s a lovely metaphor, or have you thought about it this way and this
way, so you’ve got them actually supporting each other.” I respond, “They’re scaffolding.” Joy grins and says, “Exactly!”

Joy does frequently uses the term “scaffold.” and when her images, rules, and principles are considered, it could be one of her metaphors of teaching. Referring once again to her use of the discussion forums Joy says, “The discussion forum works well sometimes, and it really is about constantly checking the discussion forums and being able to provide the statement or the question to scaffold the learning, and that becomes a real challenge and that’s really exciting too.” When describing her philosophy of teaching Joy states, “I know I cannot grow to the level I aspire to if I’m not scaffolded by somebody else.” The concept of a scaffold as defined by Vygotsky (1962, 1978), is closely tied to the philosophy of social constructivism, a term Joy also uses frequently and that is central to her personal philosophy of teaching and learning.

Hope speaks frequently of the idea of “communication” in relation to educational technologies. She refers to technological capacities as creating a “communication swimming pool,” and as a result she questions our capacity to “build a culture of teaching around it.” At the beginning of the interview Hope recognizes that advances in educational technologies have changed our “capacities to communicate as an overall society” and identified her motivation for being involved with educational technologies in part as taking advantage of “different capacities that we had to communicate.”

Hope also speaks of the importance of viewing educational technologies as “visual communication” and “digital communication” when she discusses her teaching experiences. Hope also shares her concern about a lack of understanding of educational technologies as a visual medium when she says, “But one thing I don’t think the
education field has really clicked into, and I actually find it quite disturbing, because it's like the education field does not understand that they are dealing with a visual medium and they have not connected with what the art world knows and what the design world knows about visual communication.” Hope also expresses her desire to explore the use of video as a means to “help us [early childhood educators] to develop a vocabulary, a shared vocabulary around what we’re seeing” because she recognizes that students do not have a “complex vocabulary” around children.

As I thought about my metaphors for teaching and learning, several came to mind. Now that I live permanently on a beach, I think more often of my metaphor of a rock thrown in the water. I think as a teacher we often toss out an idea, a thought, an inspiration, or a support, like a rock thrown into the water. That one rock will create endless circles of ripples in the water until they touch the nearest shore, and then the ripples return back toward the rock. I think the ripples are like the students touched by the spark or idea of the teacher, and when the students have their own thought, response, or reflection (the moment the ripples hit the shore), the thoughts, ideas, and reflections of the students return back in ripples to the teacher. This metaphor for me reminds me of the endless circle of teaching and learning where student and teacher each toss out rocks and then learn from and teach one another. It also reminds me that one small thought or idea can have a huge impact on the teaching and learning community. Advances in educational technologies give teachers greater opportunity to expand those ripples of teaching and learning and, as Hope said, “As a teacher my worldview is changed. Should I be teaching for 25 people or should I be doing it for any number of people?”
Narrative Unity

Narrative unity is a continuum within a person’s experience and renders life experiences meaningful through the unity they achieve for the person. It is a meaning-giving account, an interpretation, of our history and, as such, provides a way of understanding our experiential knowledge [italics added]. (Connelly & Clandinin, 1988, pp. 74-75)

When asked how she came to be involved in teaching using educational technologies, Joy spoke at length about challenge. I asked Joy what that challenge offered her as a teacher, and she responded,

Basically I found myself in a place of cognitive dissonance [here she laughs] where you have the new information colliding with old. This is the way my practice is going, and now I’ve got something, someone saying, “wait a minute” and that whole disequilibrium, that tension, the uncomfortable feeling, and I have to deal with it. So, how do I deal with it? Well, I’m not one to say, block it away, go away, so I have to accept those feelings with the challenge. So, that produces the tensions and that produces the stress and it produces, and then it’s just the use of technology.

Joy seems to have attained a high level of comfort with educational technologies, although she admits that she does not use all of the technological capacities available to her, focusing mostly on discussion forums, email, and external links. At this point in her teaching career, with reference to educational technologies, Joy says about teaching, “its building those relationships and I could do that without technology, so now, I could give it up, I could give it all up.” When I asked Joy if the use of educational technologies had helped her to get to this point in her teaching in any way she replied, “I think when you
look at the whole journey I've had and gotten to this point. I don't think I could get to this point feeling like I do had I not had the experience with the technology."

At the end of the first interview I asked Joy if there was anything else she wanted to share. In her response Joy came back to the idea that she no longer felt the need for educational technologies in her teaching, but recognized the role that these technologies had played in her teaching journey. Joy replied,

This whole journey that I've been on, because when you look at it as a journey, when I first started and what I've learned, the extent of involvement I've had and large gaps of not doing anything, then getting involved in Black Board and to come full circle. I think that's what I've done. I've come full circle, and now I don't need it.

Hope spoke frequently in the first interview of the many opportunities she had as a student and later in her career to learn through the observation of children. Speaking of her years as at student she said, "Observation was part of our everyday practice. Every class we were in our first discipline was to observe that age group of children and to come [to a place of learning] having investigated for characteristics or attributes of a given age." Hope discusses her motivation for developing educational technologies as a desire to "have the capacity to have video brought into other remote classrooms so those students could again learn through observation." Hope goes on to explain, "because it always bothered me that in our field that we don't have the real opportunity for our students that I had as a student."

Hope told a story of her excitement as a student having had the opportunity to watch children from an observation booth and being able to see their development as it happened. Hope would like to provide this same opportunity for her students through
video. With enthusiasm, Hope shared her thoughts. “When we think we are seeing something for the first time with a group of other people it inspires us to think and connect and reflect, and you want to build that skill and that excitement and that enthusiasm of looking.” At the end of the interview Hope compares student teachers’ need to observe through video to dancers’ need to practice their dance. “If you want to be a dancer you’ve got to practice. And I think this looking at children; children’s behaviour is the essence of our practice.”

As I reflected on Joy’s insistence that her practice no longer needed to include educational technologies and Hope’s excitement about the potential of educational technologies to provide students with more frequent and enhanced opportunities to observe children, I had some cognitive dissonance myself and wrote about it in my research journal. I do find myself at times using educational technologies to distance myself from students, and on those days I make a concerted effort to turn the computer off. Teaching is a demanding profession that requires a high level of performance and engagement. On those days when I feel less inclined to connect with my students, I need to be cognitively aware of the temptation to “speak through the Powerpoint.”

On the other hand, I do use a wide variety of videos, mostly of children in our college laboratory school as they play and learn in the child care centre, to capture students’ interest and to elicit insights and conversation. However since these videos are captured footage, they become boring to me after a few years. I think Hope’s dream of bringing live video capture directly into the classroom would heighten opportunities to create those sparks, to make those ripples in the water.
Narrative Accounts: Second interview

Inspired by Joy’s discussion of challenge in the first interview, I began the second interview by asking participants if they thought that the use of educational technologies could induce a challenge or creativity in the learning community. Hope discussed the potential of video to “inspire people to think and connect and reflect” in the first interview, and so I asked about the impact of educational technologies on reflection. Both Joy and Hope spoke of authenticity in the first interview, and so my final inquiry concerned their perceptions of the impact of educational technologies on authenticity. The narratives of the second interview were developed using the themes of creativity and challenge, reflection, and authenticity. The theme of the importance of relationship was prevalent in the second interviews, and so it was added as a fourth frame for participant narratives. Once again, as I listened to and reflected on participants’ stories, I recorded my own stories in my research journal, and they are also conveyed in narrative under each of the four constructs.

Creativity and Challenge

I started the second interview by asking Joy if she thought that the use of educational technologies could induce challenge or creativity in the learning community. Once again, Joy spoke passionately and in great detail about the paradox of challenge and its relationship to cognitive dissonance and creativity. Joy responded,

I think it produces challenge before it produces creativity, but it’s like any new information, it produces cognitive dissonance. That’s the challenge, you’re confronted with new ways of doing things and new possibilities, but it collides with the old way and some people are ready to take on that challenge as something that’s going to lead
to creative potential and other people resist it, so that’s the biggest challenge. So I think the challenge has to come first, but if it’s accepted and looked upon as inevitable, I mean, who knows what the possibilities are? The possibilities are endless with this new technology.

Hope spoke about challenge during the second interview in terms of her desire to make connections where they might not normally be made. In reference to the development of learning opportunities using educational technologies Hope said, “I like the challenge of it. I like trying to go outside of the envelope. I like going out and finding out about things I don’t know about. I like trying to connect with parts that don’t normally connect.”

Hope spoke in more detail about creativity than Joy and referred often to her background in art and to her belief that teaching was very much like “behavioural sculpture.” When I asked Hope if the use of educational technologies might induce challenge or creativity, she spoke immediately of the use of video and the importance of the observation of children. Hope described her beliefs about the importance of “giving students more of an opportunity to learn from the real thing and less of an opportunity to have me as some sort of mediator” and stated that through the use of video observation we “might be doing better teaching at the end of the day.” Hope stated that she was willing to “try to be creative or push the envelope” to create video observation opportunities for students and that she was motivated to “creatively trying to solve that problem” in reference to a lack of observation opportunities for students.

Interestingly, as Hope continued to reflect and speak her thoughts on creativity in relation to educational technologies, she stressed that the potential in the medium was
more about learning for students than it was about teaching. Hope described her thoughts about educational technologies as a learning mechanism that has changed how she sees herself as a teacher.

You know, I guess it has changed how I see my role really. At this point in my career I’m actually not so interested in the act of teaching. But I’m more interested in trying to create a mechanism where my field, as it were, can, you know that all of us can use this technology to hopefully offer better learning opportunities to students. It doesn’t make us better teachers. It’s not about us being better teachers; it’s about giving them a better opportunity to learn.

Joy also refers to the importance of video to students’ learning. Joy says, “I would love to see every early childhood educator have a video camera. I would love to see every early childhood education student have the opportunity to have that experience so that it won’t be as scary when they’re actually working.” Joy continues to discuss the power of visual images and says, “Images have such potential I think in our field. I think there is so much potential to looking at images and video images and imbedding that into our practice.”

Like Joy, Hope also speaks of the potential of video for her field. Hope spoke of her current interest in using live video in the classroom to “create an architecture that we can use to basically revolutionize how we teach in our field.” Hope refers much more frequently to the act of creating rather than teaching. As Hope discussed some of her earlier work in the art gallery, she laughed and said, “I don’t even think of myself as a teacher, I’ve never liked education that much.” Hope went on to say, “That’s why I think I’ve always created things. Everything I’ve done I’ve always created. I had to be
creating.” After I questioned Hope about the connection she made between education and creativity she responded, “It is really about creating a window, it’s about creating a window, that’s what I’m doing, creating a window.” I responded “a window into....” And Hope replied,

A window into childhood, a window into development. I feel like I’m creating a sculpture. In some ways this is a work of art for me. So, creative at teaching I don’t know. Is teaching passing on what you know, or is teaching taking a high level of knowledge and creating a context that people walk into? It’s like behavioural sculpture, and for me it’s actually always been behavioural sculpture; it’s creating some form of sculpture.

I thought a lot about Joy’s definition of challenge and the possibility of creative potential. I believe I accepted the challenge of developing two online courses because I was excited by the creative possibilities. I was not particularly interested in teaching the courses at the time, but I remember feeling a great deal of excitement about the opportunity to experience something new and the challenge inherent in creating a course that was engaging, interactive, and that felt authentic in terms of students feeling some connection to a real teacher and to one another through discussion forums. Having always had an interest in art, I was attracted by its creative potential and by the feeling that I was creating a potential piece of “sculpture,” to borrow Hope’s term.

I have always thought of teaching as a creative process, and so I found Hope’s comments about not thinking of herself as a teacher and needing to create things instead surprising. Certainly the development of the online courses offered a huge potential to exercise creativity within teaching, but even within the classroom I think that there are
ample opportunities to be creative. In all of my classes I combine my interests in art with students’ learning opportunities by including hands-on opportunities, drawing, painting, and work with images. A recent series of workshops that I developed and delivered with a colleague included weekly opportunities for participants to represent their thoughts and theories in art forms such as sculpture, pencil drawings, and illustrations for children’s stories. Students stated that the process of representing their ideas in a more abstract format freed them to articulate their thoughts verbally. I like to think that teachers and artists are very closely aligned.

Reflection

When I asked Joy if she thought that the use of educational technologies can impact reflection she responded, “Yes! Absolutely, absolutely, absolutely, because it’s like an instant replay. It’s huge for reflection.” Joy goes on to relay a story about a project where students working in the college’s laboratory child care centre were videotaped, followed by a meeting between a faculty member and the student to discuss the video. The students were required to write a report, and all said that the experience “absolutely aided in reflection.” Joy thinks for a moment and then responds regarding the use of video observation,

It’s a huge tool for reflective practice. Its probably one of the best tools I think for reflective practice, because it’s not a solitary tool, like journaling is solitary. It’s a community tool, and of course as a Vygotsky advocate I think we learn better as a community. So the potential of videotaping a student and coming back and viewing those videotapes as a group and discussing it is the learning for the students, but the learning for everybody I just think is huge.
Hope, when asked if educational technologies helped people to be better at reflection, replied, “I think absolutely.” Hope thought for a moment and then made a further comment on video when she said, “But again, I mean, you can have someone watching video who isn’t actively engaged in developing vocabulary or concepts or interpretive capacities or reflective capacities, and it’s just video.” Hope refers again to her concept of “behavioural sculpture” with respect to reflection. Hope says, “What’s the ingredient that’s actually motivating the reflection? Is it a teacher or is it someone who actually becomes very, very interested in their own right in something that the teacher never even would have noticed?”

I remembered using a video segment of a group of children playing on a climber at a child care centre to help students observe different aspects of physical development. One of the students in my class pointed and yelled excitedly, “That’s a scaffold. That child there is holding their hands together for the other child who can’t quite reach the next rung on the ladder. That’s a scaffold!” The student revelation was an amazing moment on so many levels. One of the many challenges of teaching development is the necessity to teach different areas of development in a way that is discrete, with the intent that students will come away with a clear understanding of each developmental domain. Another challenge is the task of helping students to see the connections and intricacies between the areas of development. This moment of video capture accomplished both tasks; the student saw the physical development and then made a connection to cognitive development by pointing out the concept of a scaffold. Further, she was able to provide a valuable scaffold for the class by highlighting an illustrative point in the observational video, and she engaged in the teaching and learning ripple effect by throwing a spark out
to the class. As Hope pointed out, this instance of reflection was motivated by the student's interest and had gone unnoticed by me. Thinking back on this incident, I became very excited about the potential of live video to regularly create these moments of discovery and scaffolded learning in class.

_Authenticity_

When I asked Joy if she thought that the use of educational technologies has an impact on authenticity, she replied quickly, "I think so because there's no hiding. You can't hide behind someone else's work." But then Joy thought a moment and relayed a story of a faculty person who insinuated that her teaching practice of using videos of children with her class was innovative. Joy stated angrily, "So I don't think there's authenticity there, putting herself out there as being an innovator."

Joy discussed the importance of a body of knowledge to our field when I inquired about the impact of educational technologies on authenticity. "We need to recognize authenticity, that this is not a new idea. It's important to pay tribute and to recognize what has come before you." Joy went on to explain the importance of a community of learners and of paying tribute to "people in this department who have been doing this for years." Joy went on to say,

So I think that we have to recognize to be authentic you have to recognize where we've, what we've come from, and to be authentic you also have to recognize that you don't do this in isolation. There is a whole body, a field of work, and people who have explored this and looked at this. So I think to be authentic you have to be well versed in this and understanding that this is not just, you know, just showing a videotape of
kids in your classroom, that’s not the big picture, its like the minutia, there is so much more.

Joy takes a moment and appears to collect her thoughts and then says, “If you use it creatively and individually, then it has to be authentic because it’s you and it’s your students.”

Joy also discussed the lack of authenticity of lesson plans that teachers seem to pull out every year with regard to college teaching and teaching in the field of early childhood education. “And it’s not authentic because it’s coming from a book, it’s coming from a plan that I did last year with a different set of kids of the year before, and the idea is something that’s coming from the dominant culture.” Joy continues, “So that’s not authentic, but if every time you embed video that your students take, video that you take, and you take in the context, so it’s stories of your students, it’s stories of you, the potential to be authentic is huge.”

Joy thinks a moment and then says, “But, it’s also because of technology, and how you can just copy at the snap of your fingers, that the potential to put yourself out there as something you’re not is also huge.” I respond, “Right, and that’s the paradox.” Joy smiles and responds, “Yes, it’s a huge paradox. But education is full of paradoxes.”

Hope questions the availability of educational technologies as a convenience rather than a means to augment effective teaching. Hope cautions about the use of the college’s learning management system when she says, “But as soon as you get into using it as a teaching interface you get into trouble, unless you happen to think that teaching and text are synonymous. So what happens when you want to use this as an extension of your own thinking. an added experience for students?” Hope goes on to stress the importance of
video opportunities for students and wonders how frequently these opportunities are being used by faculty. Hope then questions her own practice when she says, "So at the end of the day, as a teacher, as authentic teacher voices, as authentic individualized brains has this technology, I wonder if it has lessened the interactions that I have with students."

I reflected on Joy’s comments about reproducing the same course content year after year and Hope’s thoughts about the possibility of using educational technologies to lessen contact with students, and I must admit I found myself as a teacher in both of those practices. The college’s “learning management system” allows me as a teacher to transfer content from one semester to the next, and I have utilized this capability. In my heart I feel that I should start fresh each semester, but the realities of time constraints and many courses to teach make the temptation to “replicate a course at the push of a button” very appealing. As a teacher I must remind myself that each group of students is unique and I owe them a thoughtful consideration with respect to their needs, learning abilities, and information offered through a new lens.

I am a fan of email and have never really enjoyed telephone conversations. As a result I rely heavily on email communication with my students. Email offers huge advantages, as there is no need to leave messages and the information conveyed is available as soon as the student is ready to receive it. However, as my utilization of email increases, I do find that my face-to-face contact with students decreases. My steadfast belief in the importance of relationships with students serves as a reminder that I must not replace human contact with digital contact.
Relationships

At the beginning of the second interview Joy stresses that the potentials for educational technologies are endless. When I ask her if she can see what these possibilities might be, she immediately goes back to the idea of a community of learners and social constructivism. She says, “I can see an online community of learners. I can see the opportunity to scaffold learning that goes well beyond class.” Joy says on more than one occasion that she believes people learn better in “a community” and emphasizes the ideal of “support.”

When Joy talks enthusiastically about the potential of educational technologies in teaching she also stresses the need for support. Joy says, “But you need support. The biggest challenge I think is support, because it’s like unchartered territory and you need a guide to take you through these paths that we haven’t been down before, more of an IT guide.” Joy thinks for a moment and then says, “To go hand in hand through this unchartered territory, knowing that there is a technical person holding you’re hand but you’re exploring the pedagogical aspects of it takes the fear away.”

Hope also addresses the desire for relationship development as part of the exploration of the potentials of educational technologies in teaching and learning. Hope likens the need for many players in the development of educational technologies to a ballet. She feels that it is important to include people from the art world, people from the technical world, and educators in developing technologically-enhanced environments. Hope says, “So it’s kind of creating a little bit of a ballet here of players, and the outcome is unknown, but I have a little wager here going on in my own mind which is if we can get the right combination of people that we really might be able to do something quite
significant in terms of how we are able to offer students better, more meaningful learning.”

Later in the interview Hope remembers teaching without educational technologies and says, “I mean, when I used to teach we didn’t even have overheads. The relationship was the dialogue with you and the students.” Hope says of the new educational technologies available to her, “I think it’s making me a worse teacher because, I don’t know, the students don’t even have to come to me anymore.” In relation to teaching online courses, Hope stressed the importance of human interaction and agreed that teaching in a mixed mode (partly online and partly in person) was essential. “I don’t know if I could do a fully online course unless I had some way of pacing myself with where the student was in the course.”

As in the first interview, the story of the observation booth is a powerful one for Hope. Hope says, “There’s a theme to what interests me, and it’s always going back to the observation booth.” Hope goes on to explain how she imagined the observation booth as she developed an online course. “I mean, when you put it in an online course I always imagined a student looking at this like sitting in an observation booth, and that’s what I’m trying to create, and I’m also trying to get myself out of the situation so I’m not a talking head.” Earlier in the interview Hope also expressed a strong desire to create learning environments rather than to mediate them. Hope says, “I learned that the higher degree that I could be out of the situation having constructed the situation, the more I felt like someone who was supporting other people’s learning.” Later Hope goes on to say, “I would really like to free us as teachers actually. I would like to let us all out of the cage. You know, I’d like to be freed to be able to be learning parallel to my students.”
Hope stresses the importance of human interaction and reflects on the use of technology in society and in her own home. Hope thinks for a moment and then says, “I don’t know if this enhances our communication or lessens our capacity to communicate in a certain way, but this is more about seeing than communicating. I’m not interested in this so much as a communicative tool between people. I’m interested in it as a tool for seeing and a vehicle for spoken, for dialogue, real face-to-face.” Hope sighs and then says, “You know it might not be at the end of the day. Some of it might not be. It might be online.”

Hope’s last reflection of online courses again involved the theme of relationship. In the online courses I thought we needed a voice, the voice of the teacher. I only thought that because I thought it made it more animate, it made it more personal, because I think students do probably need to identify with a person because you know, at the end of the day, a course finishes and you think, “O.K. maybe I taught the content I was supposed to teach” but when you think about what the student walks away with, I think they walk away with your attitudes. I think they walk away with how you treat them; you know, how you model responsiveness. So there’s all kinds of intangibles that students are walking away from you with that weren’t on the course outline, and often those things are the most important, and that’s why I thought that there should be a voice or the sense of a voice in the online course.

Hope’s final comments resonated with me the most. I remember how strongly I felt about the importance of the “teacher’s voice” in the online courses. I thought that having this audible voice would give the students some sense of connection in being able to hear that there was a person behind what they were seeing. I wanted the students to realize that
a person had thought of these ideas, that they were not alone at their computer, and that
they were interacting with something far greater than a piece of technology. I wanted all
of the students to feel like part of a community connected to a real person, a real teacher.

The many themes and connections that evolved from my interviews with Hope and
Joy have given me a heightened sense of insight and understanding of my own teaching
practices and a newfound excitement to further explore the teaching philosophies and
beliefs of other colleagues. In Chapter Five, my intent is to convey my final thoughts and
understandings of these themes, connections, and insights.
CHAPTER FIVE: FINAL THOUGHTS

I began this narrative journey of the investigation of teacher authenticity and reflexivity in order to discover the essence of experience of other college educators and myself in the context of teaching and learning communities where educational technologies were utilized. The purpose of the inquiry was to identify common experiences amongst me and the teacher participants that might inform the practice of other educators who seek authentic and reflective practice in learning environments where educational technologies are used.

Summary of Inquiry

While conducting the research for this qualitative inquiry I was cognizant of my stance as a feminist who believes strongly in the power of narratives to the acquisition of knowledge as it is coconstructed in a community environment. My research was driven by the desire to further explore my discovery that my utilization of educational technologies in teaching and learning environments had heightened a sense of creativity for me which in turn seemed to increase reflective practice and authenticity in my teaching.

Emphasis in the inquiry was focused on accessing the lived experience of participants through the use of two loosely structured interviews with each teacher and my own research journal, constructed by writing reflections during the interview process. The research design was collaborative in nature, and field texts were analyzed in a coconstructivist environment where participants took an active role in interpretation and validation of the interpretive analysis of field texts through the sharing of reflections and insights with me. The research design was also reflexive in nature, as an autobiographical
lens was used as the basis to critically reflect on teaching stories where personal history, contextual understanding, and experiences were regarded as central components to the understanding of the formulation of teaching practice.

After conducting two research conversations with each participant, I transcribed the contents of the interviews in full. Each of the four interviews was listened to at least four times. During each listening period I focused on a different “voice” in the narrative, using the listening guide as outlined by Raider-Roth (2005). While relistening to the stories of the participants I made notes in my research journal to critically reflect on my understandings, insights, and questions and to record emerging themes and my own teaching stories.

Narrative accounts of the first interview were written using the constructs of “language of educational practice” as outlined by Connelly and Clandinin (1988). After the initial conversation, themes were examined within the narrative accounts, and a second set of questions was asked of participants to further explore the emerging themes of authenticity, reflexivity, creativity and challenge, and relationships. A second narrative account of each interview was written using the themes as constructs. During the construction of narrative accounts I continued to reflect and to write in my research journal, and from these writings I then constructed my own narrative accounts.

Throughout both interviews with Joy and Hope, discussions about educational technologies focused most frequently on the use of video, specifically to give students the opportunity to observe children and to reflect on their student teaching practice. Both participants also discussed the use of discussion forums and PowerPoint presentations
and also spoke of the use of the learning management system at the college where they teach.

The need for challenge and the opportunity to explore the creative potential of educational technologies were motivating factors for both Joy and Hope when they relayed their teaching stories. When Joy describes her teaching experiences she consistently speaks with passion of her relationships with her students. Even Joy’s need for challenge is equated to her understanding of students’ needs and an underlying assumption that, like her, students also require challenge in their learning environments.

Hope discusses her motivation to utilize educational technologies in terms of investigating or inquiring into the possibilities inherent in the medium. Although Hope discusses the need for challenge, she speaks more excitedly about discovering new methodologies for teaching in her field and the impact educational technologies might have on her ability to communicate as a teacher. Hope frequently refers to educational technologies as a type of visual language necessitating a specific vocabulary in her field and believes in the power of technology to change the capacity of society as a whole to communicate.

Joy stresses that although she has utilized educational technologies and recognizes that they can be an important aid in furthering the development of community and a sense of support with students, she no longer needs the technology and would be satisfied to teach without it. Hope identifies similar sentiments in her criticism of the college’s learning management system and her queries about the possibility that educational technologies have reduced her contact with students and have had a negative impact on her communication with them. Hope, however, unlike Joy, recognizes that educational
technologies have the potential to improve relationships with students and increase opportunities for face-to-face dialogue.

I too engaged in the process of developing online courses because it was challenging and exciting and I felt that I was able to utilize my artistic skills and interests. Like Hope, I am excited by the potential I see in educational technologies to transform our teaching and to enrich and expand the communication process between teacher and student as well as between students. I aspire to the building of community in teaching and learning environments both in class and online and also think that educational technologies can aid in this process.

Both Hope and Joy use the term “talking head” as a cautionary phrase: a reminder that lecturing in the classroom and using excessive amounts of text in online environments is not tantamount to good or effective teaching. Hope stresses her desire to be more than just someone who imparts knowledge in the classroom, and Joy consistently emphasizes the importance of engaging students in hands-on and active learning environments. Although I cannot identify with the talking head metaphor, I am consciously aware of the importance of allowing space for students’ voices to be heard in learning communities. A concerted effort to foster and encourage student participation does ensure that my voice is not the only voice, or the dominant voice in the room, or in the virtual learning space.

Both Hope and Joy stress the value of educational technologies as a teaching tool that can increase the opportunity for students to engage in active learning and discovery. Joy discusses the value of video as a learning tool as long as it is used to elicit student insights; otherwise it becomes a passive experience akin to watching television. Hope
describes in more detail the potential of video to increase opportunities for students to engage in discovery and visualizes it as a medium that gives her the freedom to change her position as a teacher in the classroom to someone who can discover along with the students.

I believe strongly in the importance of active learning and discovery and, like Hope, have felt extremely frustrated at the lack of opportunity for students to learn from real-life observation and experience and as a result have used video extensively to fill this void. However, I have never felt that my position as a teacher separated me from students in the pursuit of knowledge. Like Joy, my strong beliefs in social constructivism have always made me feel that I learn in community with my students.

Hope speaks passionately about the role of authenticity and empowerment in relation to the role of students and their learning in the classroom. Hope describes the importance of changing her position in the classroom as the communication interface the students must go through and replacing this scenario with live video. Hope feels that this shift would make students feel empowered about their role as authentic analyzers and authentic responders of real-life moments of children's learning and development.

Hope expands on her definition of authenticity in the second interview. Hope describes the importance of the “personal” in terms of thinking, discussing, and perception. Hope describes learning environments that are authentic as being original, meaningful, and honest and invented with a high level of discovery. The alternative, in Hope's description is a situation where information comes in externally to students, is memorized and internalized, and the teacher becomes the performer for her class.
Joy discusses the role of authenticity as if it is an inventory or checklist she uses when faced with a new teaching opportunity or tool. In reference to the two online courses she codeveloped, Joy asks herself, “Who am I as a teacher, who am I as a learner, who are my students as learners, and how do you set up an environment that all can learn from?” Again Joy comes back to her belief that adults and children learn best in a social constructivist environment and stresses that teaching in this way is more authentic to who she is. Joy also relates authenticity to the recognition of “giants in our field” and recognizes that educational technologies encourage an honest portrayal of self when they are used individually and creatively, but notes that the same educational technologies give educators the power to represent themselves as something they are not.

Both Hope and Joy speak of the importance of human connection, specifically in online courses. Hope discusses the essential inclusion of an audible human voice in the online course she developed to make it more grounded and connected and associated with an authentic teacher’s view. I too felt that the audible human voice was essential in the subsequent two online courses that were developed. I wanted students to feel a connection to me as a person, whether they shared a classroom with me or a connection through a computer.

Joy stresses the value of educational technologies as a tool for reflection, particularly the use of video. Joy sees the viewing and discussion of video segments as a community tool of reflection rather than a solitary tool and emphasizes once again the importance of providing students with opportunities to learn as a community. Hope also stated that educational technologies help people to be better at reflection but cautioned that examining the motivation for reflection is an important consideration. Hope stressed that
if viewers are not actively engaged in developing vocabulary, concepts, or interpretive capacities, “it’s just video.”

Both Hope and Joy discuss the importance of relationships in the consideration of educational technologies and their impact on the teaching and learning environment. Joy consistently focused on the idea of fostering a community of learners and the ideals of social constructivism. Joy also recognized that relationships of support needed to be built within the college where she teaches to help teachers navigate new and unfamiliar territory in the land of technology. Hope visualized connections made between artists, educators, and people from the technical world in a type of supportive and collaborative ballet.

When all of the narrative accounts are compared, the narrative unity comes through in the themes of an educator’s need to feel challenged and to be creative, a recognition that educational technologies have great potential to enhance reflexivity and authenticity but paradoxically can also be used to foster learning environments absent of reflection and lacking authenticity if a teacher hides behind the tools. Finally the overriding theme of relationships is present in both of the participants’ narratives: relationships between teachers and students, students and students, and the relationships necessary within the educational institution to make the journey of teaching and learning with educational technologies a successful reality.

Discussion of Six Paradoxical Tensions

As noted in Chapter One, Palmer’s (1998) six paradoxical tensions in the teaching space can be used to critically examine the use of educational technologies in teaching and learning environments. The tensions are used below to frame inquiry insights in a
way that is critically reflective and that illuminates the presence of paradox. The tensions are also used as constructs to situate the narrative accounts in relation to the work of other authors, knowledge in the field of educational technologies, and to highlight points of illumination in the inquiry in relation to the original research questions.

*The space should be bounded and open*

*The boundaries around a teaching and learning space are created by using a question, a text, or a body of data that keeps us focused on the subject at hand. Within those boundaries, students are free to speak, but their speaking is always guided toward the topic, not only by the teacher but also by the materials at hand* [italics added]. (Palmer, 1998, p. 74)

Hope articulately describes the importance of boundaries as she explains her conceptualization of video as a “visual language,” one that comes with the necessity to understand a shared, complex vocabulary around children. Joy stresses the importance of a body of data in her discussion of authenticity in the use of educational technologies with students. She talks about “the giants in our field” and the “whole body of work and people” who have come before us as teachers and explored the “big picture.” The use of the “teacher insight” and the “teacher voice” in the online courses brings students back to the rationale behind the observation of children and gives them a boundary within which to study children. I believe that the boundaries provided in the online courses help to give students a context within which to study children.

Postman (1985, 1992) also compares the medium of technology to a language and cautions that it can create a social environment where users become predisposed to favour or value certain perspectives over others. Virtual “reality” is malleable (Herman &
Mandell, 2000), and everything can be manipulated by the teacher, including words and images. Hope recognizes the importance of a shared language, but who decides what that language is, and to whom do we give the power to manipulate the language? The boundaries (language) provided by the teacher voice and the teacher insight in the online courses are chosen by the teacher. The teacher decides what knowledge is important to include or exclude without any dialogue with students. In a face-to-face classroom environment boundaries can be negotiated and cocreated, a process near to impossible in an online environment.

Barab et al. (2004) frame online communities as networks of individuals who share and develop a knowledge base focused on a common practice or enterprise. Joy’s description of a body of data and my example of the teacher’s voice establish and maintain a knowledge base and position students to engage in a mutual enterprise. The challenge would be to ensure that the enterprise and practice of establishing boundaries and language are negotiated with those who engage in the task of learning rather than being created based solely on the vision of the teacher.

"But for a space to be a space, it must be open as well as bounded-open to the many paths down which discovery may take us, to the surprises that always come with real learning [italics added]" (Palmer, 1998, p. 75).

Both Joy and Hope discuss the need for learning to be a coconstructed endeavour in the teaching and learning space. Hope aspires to free herself in the classroom so that she can discover along with students. Joy aims to make every learning experience socially constructed and full of scaffolds that are offered by teacher and student in a collaborative and supportive environment. All of my teaching narratives are filled with references to
community and a community of learners and coconstructed knowledge. All participants speak about the importance and value of open teaching spaces. The paradox lies in the ease with which teachers can use educational technologies to clearly define boundaries and create a knowledge base that is text based, rigid and determined by the teacher alone. Teachers who seek authenticity and a heightened level of reflection in their teaching and learning communities must have an awareness of the paradox of educational technologies and use this paradox as a challenge or springboard to make the teaching ideals of social constructivism, community, discovery, collaboration, and support, a reality.

Although it would appear that many attempts are made to utilize educational technologies in the pursuit of socially constructed and reflective learning environments where real learning can take place, claims about “community” and “reflection” lack clear definition or concepts (Maor, 2003; Taylor & Maor, 2000; Zhao & Rop, 2000). Boundaries are difficult to establish in teaching and learning communities when the principles that define these boundaries are unclear. The commitment of teachers to honour the principles of reflection, social constructivism, and community is a very important first step, but these terms need to be negotiated amongst professionals in the field, clearly defined and then translated into a working model in both live classrooms and online environments.

The space should be hospitable and charged

“A learning space must be hospitable-inviting as well as open, safe and trustworthy as well as free [italics added]” (Palmer, 1998, p. 75).

Hope discusses the importance of trust when explaining how educational technologies might change the relationship between teacher and student in her class. Hope states that
students would have to “trust me” and “trust what I say,” but only after they have discovered a significant learning moment themselves. In Hope’s description, empowerment of students comes after discovery and before any trust can be built. Joy speaks frequently of the importance of building community and an atmosphere of support both in class and in discussion forums.

Freire (1970, 1993) speaks of the importance of freedom and “learning democracies” and stresses that to deny subjectivity is naïve. Freedom is crucial to the ideals of community and discovery but, as noted by Herman and Mandell (2000), tensions exist in education between freedom and control, authenticity and compliance. Joy, Hope and me are bound to comply to the controls (rules, regulations, academic policies, and procedures) as mandated by the educational institution where we teach. The ideal of learning democracies is often embraced by a teacher but the ability to be free and authentic is often constrained by the requirements of teaching in a sometimes less than democratic institution.

Cranton (2001) defines authenticity as the expression of self in the community. I believe that the educational institutions where teachers teach would first have to be examined for the presence or absence of the ideals of community before a teacher is able to examine their ability to express their self, and thereby their ability to be authentic. Without opportunities for the examination of community in institutions, teachers’ are hampered in their efforts to explore authenticity in their practice. The ideals of democracy, community, and authenticity, as expressed by Joy, Hope and me, may remain as ideals unless educational institutions themselves are examined for the qualities needed to foster these principles.
It would seem that the balance between choice and control and individuality and compliance would need to be further examined by individual teachers in their practice as it relates to educational technologies. Perhaps Hope's dream of real-time observation available to students at any time both in the classroom and online would epitomize the ideals of freedom and authenticity for teacher and student. Hope's ideal of real-time observation is central to one of the paradoxes of educational technologies. The opportunity to observe children creates a hospitable, familiar environment to observe children but the challenge of live observation creates a charge that contributes to exciting, discovery-centred learning.

"If students are to learn at the deepest levels, they must not feel so safe that they fall asleep. We only need fence the space, fill it with topics of significance, and refuse to let anyone evade or trivialize them [italics added]" (Palmer, 1998, p. 75).

The use of educational technologies, particularly video observation and participation in discussion forums, surfaced as a consistent variable in my discussions with Joy and Hope. These two types of educational technologies seemed to be a useful "fence" for student teachers in our field. Both technologies also seemed fraught with paradox. Video observation was seen as valuable by both Joy and Hope as long as it included discussion, insights, and active student learning and discovery. As Joy said, otherwise it is just like "watching TV." I'm sure everyone can identify with how easy it is to fall asleep watching TV.

Similarly, discussion forums, when they are filled with topics of significance, provide a fence as long as students actually get involved. My discussion with Joy highlighted some of the important variables regarding student involvement in discussion boards and
included building relationships with students, a teacher response to each posting, and ensuring that students see the “value” in participation. Once this happens, Joy feels that students start to understand and support her goal of “building community.”

The challenge for a teacher, specifically in online environments, is to differentiate between a community of learners and a group of students learning collaboratively (Barab & Duffy, 2000; Grossman et al., 2000). As well, little investigation has taken place to confirm the link between a community model and its impact on the support of learning (Barab, 2003). Joy and other practitioners would benefit from an investigation into the criteria needed to establish a community and indications that this model does in fact support learning.

Both Joy and Hope clearly articulate the criteria they feel contributes to the establishment of a hospitable and trustworthy teaching and learning space. Joy speaks frequently of establishing community, and her story of students supporting each other through the development of their metaphors seems to illustrate her success in this endeavour. Hope clearly articulates the qualities conveyed by a teacher that go beyond the “course outline,” and a consistent reference to trust illustrates her knowledge of its tremendous importance to her teaching relationships with students. My heightened awareness of the need for respectful teaching and learning spaces also indicates an awareness of the importance of an inviting, safe, and trustworthy learning environment. The tension and challenge for all teachers in the inquiry lies in the task of discovering ways to create these identified qualities in online environments where physical human interaction is not present.
a way to help students “hear” all voices, even those in the discussion board, is a worthy goal toward improving the teaching and learning space.

“In a learning space not only do students learn about a subject, but they also learn to speak their own thoughts about that subject and to listen for an emergent collective wisdom that may influence their ideas and beliefs [italics added]” (Palmer, 1998, p. 76).

Joy speaks about the importance of context in relation to the use of video in the classroom and with regard to student’s being able to understand the context of each other’s practice teaching environments. Joy envisions the power of video to give students a window into each other’s teaching environments, the ability to see where they teach and what challenges they face. By allowing students to present the learning moments in class, Joy gives an opportunity for students to hear their own voice and to experience the voice of other students. When students are given the opportunity to see into each others’ student teaching practice, they are likely to also see an emerging collective wisdom that they may share as emerging teachers of young children.

Hope touches on the importance of context when she describes the use of a block video to study children’s learning. She spoke at length about the insights she and other colleagues and students gained while watching children play with blocks. Individual theories merged with newfound insights that arose from the ability to actually watch children play with blocks and the cognitive decisions they made about the use of space.

Hope talks about wanting to create a window, possibly an opening into the development of an emergent collective wisdom. Hope talks about creating “a window into childhood, a window into development” and then goes on to say, “I feel like I’m creating a sculpture.” I can’t help but wonder if Hope’s sculpture will emulate the
The space should invite the voice of the individual and the voice of the group

“If a space is to support learning, it must invite students to find their authentic voices, whether or not they speak in ways approved by others” (Palmer, 1998, p. 75).

Over the years reflection on my practice and my need to feel authentic in teaching and learning environments have led me to give students more time to communicate their thoughts and ideas. One student in particular had a difficult time having the class hear her voice. She would start to speak and almost immediately the class would start to become restless and chatter. I called on the student frequently when she indicated that she had a thought to share, and while she was talking I made an effort to observe the class.

When I mentally “stepped outside” the situation and tried to read the event from the perspective of the other students, I realized that their apparent rudeness toward this student, at least to some extent, came from a level of discomfort because the student spoke to me in a very confrontational manner. I believed that the student spoke this way in an attempt to have her voice heard and thought it would keep me from interrupting her or “shutting her down.” By consistently allowing this student to speak, and often paraphrasing her words so that the class “heard” her, I allowed her authentic voice to surface, and as time went on her voice had less of a confrontational tone and her ideas were considered by the class.

I have noticed a similar circumstance in discussion forums. Some students have mastered spell check (or they are naturally good spellers) and can change the colour and font of their posts. Other students post grammatically incorrect, colourless messages. Not surprisingly, the more visually appealing posts are more frequently responded to. Finding
observation booth story she speaks so passionately about. When students and teachers see observation videos together for the first time the boundaries between the teacher's voice and the students' voices become blurred. The excitement of seeing and discovering something together for the first time might free students to speak and give them the confidence to share their insights.

At the heart of my own narrative accounts and those of the two other participants is a strong "emergent collective wisdom" that observation opportunities through the use of video are central to the development of sound practice for our student teachers. I also feel that video observation offers extremely valuable professional development opportunities for teachers. To understand children and child development is to watch children, and each "watcher" brings a unique insight to the puzzle of children and their development.

The space should honour the "little" stories of the students and the "big" stories of the disciplines and tradition

"A learning space should not be filled with abstractions so bloated that no room remains for the small but soulful realities that grow in our students' lives [italics added]" (Palmer, 1998, p. 76).

Joy clearly relays the importance of considering the realities of students and their lives. Joy discussed the importance of mutual respect when I asked her what was essential in the teaching and learning community. Her last thoughts were about respecting students' input and ideas, and she finished by saying, "and [I] respect that they're human beings with their own set of problems and their own set of circumstances and recognizing what each brings to the classroom." Joy shares a similar perspective to my philosophy of
learning environments where learning involves the bringing together of unique individual selves.

The use of educational technologies lends itself to envisioning students as part of a "culture" or members of a "technological age." I believe caution is necessary when teachers attempt to honour one reality of students' lives so that we do not lump all students into one vision of a technologically savvy and literate generation of people but instead remember to continue to see each student as a unique individual.

"The big stories of the disciplines must also be told in the learning space- stories that are universal in scope and archetypal in depth, that frame our personal tales and help us understand what they mean [italics added]" (Palmer, 1998, p. 76).

Hope's story of the observation booth is archetypal and frames her personal tales, helping the reader to understand her motivation to utilize and develop educational technologies. Joy has a less clear story, but perhaps her recurring references to scaffolds help the reader to understand her passion about people learning in groups and learning from each other. Both of these stories are universal and are situated in a large body of research. Like Hope, I aspire to place my students on the "front line" when it comes to giving them opportunities to observe children. While watching video, scaffolding and supportive community learning invariably takes place. I believe that these stories are beginning to become the big stories of our discipline and, like Hope, feel that they will help us to offer better and more meaningful learning opportunities for students.

The space should support solitude and surround it with the resources of the community

"Learning demands solitude-not only in the sense that students need time alone to reflect and absorb but also in the deeper sense that the integrity of the student's inner self
must be respected, not violated, if we expect the student to learn [italics added]" (Palmer, 1998, p. 76).

The process of reflection is seen by many educators, including Joy, Hope, and me, as essential to the learning process and to the creation of a respectful learning environment for students. Joy sees the utilization of educational technologies, specifically video, as contributing to the process of reflection. Hope recognizes that although video observation can aid in reflection, the motivation for the reflection is essential to consider. I think Hope suggests that true student reflection happens only when students are interested and motivated to reflect. Teachers cannot enforce this process.

Often, opportunities for student reflection are mandated through assignments and compulsory participation in classroom discussions and online discussion forums. When and how reflection happens for a student cannot be determined, or required by a teacher. Teachers need to be cognizant of the need to allow students to think and reflect on their own and in their own time. Assignments and discussion forums are useful tools to encourage reflection and an exploration of a student's inner self, but the time constraints that often come with these class requirements might actually inhibit students from reflecting as opposed to encouraging this act.

"Learning also demands community—a dialogical exchange in which our ignorance can be aired, our ideas tested, our biases challenged, and our knowledge expanded, an exchange in which we are not simply left alone to think our own thought [italics added]" (Palmer, 1998, p. 76).

Joy's comparison between journaling as a means of solitary reflection versus dialoging around a video observation as a type of group reflection highlights the potential
of educational technologies to give students a means to reflect in community with other students. In addition to the contradictory meanings of reflection (Fendler, 2003), researchers have noted (Loughran, 2002) that reflective practices meant to challenge assumptions may in fact reinforce existing beliefs.

If students are not given the space to reflect alone, their developing insights and ideas might actually just represent group rationalization. This possibility highlights a caution to Joy’s support of “group reflection” and may serve as a caution to educators of the importance of some solitude, even in learning environments that adhere to the philosophy of community learning and social constructivism.

*The space should welcome both silence and speech*

“*Words are not the sole medium of exchange in teaching and learning – we educate with silence as well [italics added]”* (Palmer, 1998, p. 77).

At the end of the second interview, Hope speaks eloquently of the role of relationships in learning and outlines the “silent” actions of a teacher that are an important part of education. Hope identifies the difference between defining education as teaching “the content” versus considering what the student walks away with. Some of the “intangibles” that Hope identified when students “walk away” were “how you treat them [the student],” “your attitudes,” “how you model responsiveness,” and says that “those things are the most important.”

Joy speaks of the importance of respect, another potentially silent action of the teacher, in the teaching and learning environment. Joy talks of the qualities of mutual respect in a “reciprocal community” and identifies the importance of a teacher’s silence when she says, “I don’t know everything, and I don’t have to have all the answers.” My
belief in the importance of “student voice” is also a reminder to be silent myself. If I allow video to stand on its own, to wait until students have thought and are ready to offer their unique and valuable input, my silence aids tremendously in furthering the learning in class. Similarly I need to be patient when the discussion forum stays empty for a few days. Thoughtful, silent consideration of a topic is important and a prerequisite to enlightened insight.

“In authentic education, silence is treated as a trustworthy matrix for the inner work students must do: a medium for learning of the deepest sort [italics added]” (Palmer, 1998, p. 77).

Hope refers to the importance of giving students the space not only to discover but to become “authentic analyzers” and “authentic responders.” In class it is easier to recognize the need for space so that students can sit with information and ideas before they are required to respond in some way. In online environments it is much more difficult to decipher a student’s need to contemplate versus a student who is lost and might need help or support. An unanswered discussion forum offers little to go on as far as determining a student’s need for silence or perhaps a silent call for help.

Authenticity in education, including those educational environments that utilize educational technologies, relies on definitions that are not necessarily agreed upon (Barab et al., 2000). A sense of self and the development of relationships with students seem integral to a teacher’s authenticity (Cranton & Carusetta, 2004). Teachers face many challenges when trying to accomplish these goals in online environments and when they are distanced from students by a high dependence on learning management systems and technological aids such as PowerPoints. Paradoxically, as Joy mentioned in her
discussion of the impact of educational technologies on authenticity, the use of educational technologies can give teachers total control or offer them the choice to be free and vulnerable together with their students (Herman & Mandell, 2000).

**Implications**

One of the difficulties I experience with reflection is the speed at which it occurs. The more that I write, the more I find myself thinking about what I’m writing, and then my ideas change and formulate as I continue to work. I began this process of inquiry with the mindset that the use of an innovative teaching tool, in this case educational technologies, results in a heightened level of creativity, which in turn causes the teacher to be more reflective and authentic in the teaching and learning community. As I constructed the narrative accounts of other educators and then wrote each chapter I found myself reading passages of text with a new lens each time.

I still believe that the challenge of exploring a new teaching media, in this case educational technologies, is an invitation to heightened teacher reflection that can result in a more authentic learning environment. Engaging in the process of interviewing other teachers who share similar philosophies to my own, who have similar dreams, and who struggle to communicate the same body of knowledge to a group of student teachers was a creative challenge for me and gave me a new sense of meaning and relevance with respect to my work.

Our autobiographies as learners in childhood, adolescence, and young adulthood form our approach to teaching at the start of our careers, and they frequently exert an influence that lasts a lifetime. Additionally, the learning we undertake in adulthood provides a rich vein of experience that can be mined for insights into the power
dynamics of teaching. Learning something new and difficult and then reflecting on what this experience means for teaching is a visceral rather than an intellectual route into critical reflection. Of all the methods available for changing how we teach, putting ourselves regularly in the role of learner has the greatest long-term effects. (Brookfield, 1995, p. 50)

The themes of “challenge and creativity,” “reflection,” “authenticity,” and the importance of “relationships” were evident in all of the interviews I conducted with both participants. Both Hope and Joy seem able to envision the ideals of each of these themes in learning environments where educational technologies are used despite their equal ability to recognize the drawbacks and limitations inherent in the medium.

For every challenge to be authentic there is a seemingly equal opportunity for teachers to use educational technologies to represent their selves in any way they please, even if that presentation is dishonest. Similarly, educational technologies can be utilized to heighten reflection but can also be manipulated by educators to rationalize a set of knowledge claims or beliefs to further a nondemocratic educational agenda.

Relationships are essential to the learning process but, as identified by both Joy and Hope, the relationships needed to navigate the sometimes difficult journey of integrating educational technologies into learning environments are not always present. In online environments, building a community of learners is a difficult task and, in class, educational technologies, when used in place of an authentic teacher, might just distance the teacher from the learner. Both Joy and Hope shared cautionary tales of the overuse of PowerPoints and the convenience of learning management systems that lessened their contact with students.
Brent (2005) makes an interesting argument about the unstable nature of new
technologies and concludes that future development and utilization are dependent on the
definition of knowledge that is adopted: knowledge as “performance” or knowledge as a
“thing.” Hope questions the nature of technology in our second interview together and
asks, “What’s a technology?” She answers her own question with another; “Is it authentic
teacher voices, authentic individualized brains? Is technology a machine? Is technology
software?” According to Brent, social engagement and interaction will be of key
importance if technology is defined as performance. If the idea of knowledge as a thing
wins the struggle for the meaning of technology, elaborate texts will be put in place and
students will take the role of an audience rather than a participant.

Emerging Insights

Participants in the research study, like me, clearly recognized that educational
technologies are not in themselves “good or evil” but the end result, when the impact on
learning is considered, is “how you chose to use them”. Discussions about educational
technologies focused most frequently on the use of video to provide students in both face
to face classrooms and students in online environments with opportunities to see young
children as they played, learned and developed. Both participants discussed the use of
classroom management systems but they both seemed to find the most potential in live
video.

The power of the audible teacher voice came through as an essential component in
online learning environments to offer students a sense of humanness and connection with
the teacher. Relationships in both online and face to face classrooms emerged as a
necessary and central component to all teaching and learning communities. Teachers and
learners discovering together, reflecting together, and facing challenges together. particularly while engaged in the viewing of videos of children seemed to contribute to a sense of authenticity and synergy in the classroom.

An overhanging theme of all emerging insights was one of paradox. The use of educational technologies in my teaching has opened a door for me to creativity, more frequent reflections on my practice, and a heightened sense of authenticity in face to face classrooms and in online environments. Many of the stories told to me by the research participants resonated with my own and our experiences often pleasantly coincided and seeing ourselves in each other’s stories seemed to help each of us to construct a shared knowledge base were each filled in an integral piece of the puzzle.

**Next Steps**

Further research is needed to demonstrate the use of educational technologies in learning spaces that embrace the ideals of social constructivism and that are focused on the engagement of students and teachers in the coconstruction and discovery of knowledge rather than “imparting knowledge” in a text-based, “talking head” environment. Some of the research insights of this inquiry will be used as part of a literature review for a current initiative within my faculty to install, utilize and study the use of live video of children in classroom were students are being educated to become early childhood educators

**A Final Word**

As I started this chapter with a narrative of Wayne, a former student remembered, it seems fitting to end the chapter with a further memory of the same student. In each of my Philosophy of Early Childhood Education classes, I ask my students to choose a quote
that has personal meaning for them as a student teacher. Wayne selected a quote by Confucius:

If your plan is for one year, plant rice
If your plan is for 10 years, plant trees
If your plan is for a hundred years,
   Educate children.

The quote by Confucius was Wayne’s mantra for his goal of becoming a teacher of young children in the Caribbean. Fully half of the population of the Caribbean survives on the banana industry, one fraught with political battles known as the “banana wars.” A country of displaced people has learned to survive on an export that continues to be controlled by ancestors of the politicians who displaced them. Wayne recognized that living on rice (bananas) wasn’t working; his plan was for a hundred years.

The writings of Confucius and those of other Chinese philosophers are often seen as a variation of humanism. The tendency of the Western world is to think in polarities. The writings of Confucius highlight the importance of a focus on two poles to balance order and harmony and to foster communication between our humanity and the social context within which we live. According to Palmer (1998), when we embrace opposites and truth we discover authenticity in education.

People are resilient. It would seem that educational technologies have become entrenched in the college education system. Holding onto the ideals of creativity, authenticity, reflection on practice, and the importance of building and maintaining relationships honours the pole of humanity. Recognizing, reflecting on, and integrating educational technologies honours the social context of the technological age within which
we teach. Balancing these two poles just might make us better teachers “at the end of the
day.”
References


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Harvard University Press.


Appendix A
Ethics Approval

Brock University
Office of Research Services
Research Ethics Office
St. Catharines, Ontario, Canada L2S 3A1
T 905-688-5550, Ext. 3035/4876  F: 905-688-0748

DATE: February 5, 2007
FROM: Linda Rose-Krasnor, Chair
       Research Ethics Board (REB)
TO:   Katharine Janzen, Seneca College
       Louise Jupp
FILE: 06-204 JUPP
TITLE: A Narrative Journey of Teacher Reflexivity and Authenticity In Technological Environments

The Brock University Research Ethics Board has reviewed the above research proposal.

DEcision: Accepted; however, please note the Brock REB does not require data to be kept for five years and then destroyed.

This project has received ethics clearance for the period of February 5, 2007 to July 1, 2007 subject to full REB ratification at the Research Ethics Board’s next scheduled meeting. The clearance period may be extended upon request. The study may now proceed.

Please note that the Research Ethics Board (REB) requires that you adhere to the protocol as last reviewed and cleared by the REB. During the course of research no deviations from, or changes to, the protocol, recruitment, or consent form may be initiated without prior written clearance from the REB. The Board must provide clearance for any modifications before they can be implemented. If you wish to modify your research project, please refer to http://www.brocku.ca/researchservices/forms to complete the appropriate form Revision or Modification to an Ongoing Application.

Adverse or unexpected events must be reported to the REB as soon as possible with an indication of how these events affect, in the view of the Principal Investigator, the safety of the participants and the continuation of the protocol.

If research participants are in the care of a health facility, at a school, or other institution or community organization, it is the responsibility of the Principal Investigator to ensure that the ethical guidelines and clearance of those facilities or institutions are obtained and filed with the REB prior to the initiation of any research protocols.

The Tri-Council Policy Statement requires that ongoing research be monitored. A Final Report is required for all projects upon completion of the project. Researchers with projects lasting more than one year are required to submit a Continuing Review Report annually. The Office of Research Services will contact you when this form Continuing Review/Final Report is required.

Please quote your REB file number on all future correspondence.

LRK/bb
Appendix B

Interview One Questions

1. What motivated you to teach using educational technologies?

2. How did you come to be involved in teaching with educational technologies?

3. Tell me about your experiences teaching with educational technologies?
Appendix C

Interview Two Questions

1. Do you think that the use of educational technologies can induce challenge or creativity in the learning community, and how?

2. Do you think the use of educational technologies can impact reflection, and how?

3. Do you think the use of educational technologies has an impact on authenticity, and how?