

What Is the Nature of My Influence as an Educator and How Can I Influence Teachers to
Use Assistive Technology in Daily Practice?

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Abstract

This action research study, in the form of a living educational theory, examined my transition from school-based learning resource teacher to system learning resource teacher for Special Education. The study explored the particular educational context of a peer coach assisting teachers in implementing assistive technology into classroom practice. The living educational theory methodology of self-study with social validation from participants allowed for an “unearthing” of my personal values and an awareness of the nature of my influence as an educator. The fruits of the inquiry have been a deeper understanding of the notion of collegiality and the creation of a living educational theory of professional care.

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Dedication

To my mother, Ruby Vansickle, my first and finest teacher.

All things bright and beautiful,

All creatures great and small,

All things wise and wonderful,

The Lord God made them all.

(Cecil F. Alexander, Hymns for Little Children, 1848)

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CHAPTER ONE: BACKGROUND—IDENTITY, VALUES, AND INFLUENCES

Greatness in teaching, (too), requires a serious encounter with autobiography:

Who are you? How did you come to take on your views and outlooks? What forces helped to shape you? What was it like for you to be ten? What have you made of yourself? Where are you heading? An encounter with these kinds of questions is critical to outstanding teaching because teachers, whatever else they teach, teach themselves. Of all the knowledge teachers need to draw on, self-knowledge is most important (and least attended to). (Ayers, 2001, p. 124)

In September of 2006, I began a new role in education. I left a school position where I had worked as a learning resource teacher for over 7 years and I began a system role as a primary system learning resource teacher for Special Education. In the summer of 2007, I entered the Brock University/Grand Erie District School Board Master's of Education Cohort. These new adventures in my educational life have been some of the most rewarding yet by far the most challenging in my 20 years as an educator. The environmental changes that the new system role involved and the theoretical challenges that the new studies involved have caused me to reflect very seriously on my own autobiography and to ponder deeply my identity, values, and influences as an educator.

In this chapter, I will begin with situating my new job position of primary system learning resource teacher for Special Education in its political and organizational context within my school district. I will then describe the personal and cultural context of change that this new job position represented by exploring the changes and challenges to my professional identity. After I have exposed the challenges faced with the job change, I then explore the values and influences in my personal and professional life that I believe

are the standards that guide my learning and teaching as an educator. At the end of this chapter, I summarize the values I hold as standards of practice and restate the research question: What is the nature of my influence as an educator?

Identity: The Political and Organizational Context of Change

Four teachers were hired to begin a new position: one for each area of our school district. We each have approximately 16 schools to serve. The description of this new role stated that the system learning resource teacher for Special Education would be assisting classroom teachers to differentiate program for primary students with unique learning needs.

This system learning resource teacher for the Special Education position had not previously existed in our school board. It represented a political “hot potato” because three primary self-contained classes called Primary Assessment Classes (PACs), which had existed for close to 20 years, had been closed and these four system positions were created to replace them. The PACs had been designed to support very young students, aged 4 to 6, who displayed moderate to severe language and learning deficits. The students were referred to the PAC class from their home school. Students spent 1 or 2 years in the PAC class where they received individualized programming delivered by a Special Education teacher and one or two educational assistants and close monitoring and assessments by various support staff including speech and language pathologists, psycho-educational consultants, behaviour counselors, and social workers. After 1 or 2 years in the PAC, most students returned to a regular classroom setting in their home school. Most students were not identified with any specific exceptionality; however, there were

specific recommendations for programming included in the reports written by the support staff that had monitored the students during their time in the PAC class.

The new position of primary system learning resource teacher for Special Education represented significant change at a political level in our school board. Many people were angry about the closure of the primary self contained classes. In the first 2 years after the PACs were closed, I often heard comments from principals and school based learning resource teachers referring to the “good old days when we had those Primary Assessment Classes.” They would often lament that “these students would have been better served in the PAC class and that they would have had an assessment done by now.”

These new system positions for Special Education were developed to be more in line with current thought of inclusion and differentiated instruction for students with special needs. There was belief that primary children should be kept in regular classroom placements because research was showing that that was where they learned best: surrounded by their peers who modeled age-appropriate communication, learning, and behaviour. There was significant pressure from the Ontario Ministry of Education (OME) that classrooms should be providing differentiated instruction to all students and that each child should be learning at his/her instructional level (Ontario Ministry of Education [OME], 2005).

The new system role represented another significant change in the teacher-support model as well because it was developed based on a “coaching” model approach. Toll (2005) defines the coach as:

one who helps teachers to recognize what they know and can do, assists teachers as they strengthen their ability to make more effective use of what they know and do, and supports teachers as they learn more and do more. (p. 4)

In our school district the coaching model had been used for several years in the elementary program panel as a support for implementing “best practice” literacy instruction for classroom teachers. The principal leader for Special Education encouraged the new primary system learning resource teachers to adopt the coaching model in our work with classroom teachers as well.

Using a coaching model represented significant change for special education services because for many years learning resource teachers often withdrew students to remediate their weaknesses in learning, in hopes that the skills they acquired in the resource room would transfer back into the classroom. The coaching model operates quite differently. The coach supports the teacher as he/she learns to understand the child’s unique learning needs and the coach supports the teacher in providing differentiated instruction for the student. A more in-depth exploration into coaching research and benefits will be addressed in chapter 2.

Identity: The Personal and Cultural Context of Change

This new role continues to represent a significant struggle for me with respect to the change from school-based role to system role. The following is a personal reflection paper I wrote for Dr. Nancy Fenton during the Master’s cohort course entitled Effecting Change in Educational Organizations, during July 2008. In this paper I reflected upon the personal and cultural changes to my educational life that this new position presented to me. I include it here as a way of exposing the struggles I was experiencing and as

proof of the need to explore the influences in my personal and professional life and the need to assess the values that I felt were being challenged in my new work environment.

Response to Change—Riding the Wave

In September of 2006 I jumped into new educational waters as I made a career change from elementary school learning resource teacher to system level learning resource teacher for special education. Over the past 2 years I have experienced multiple waves of response to this self-initiated change in my professional life. As I reread and reviewed personal journals and writings from the last 2 years, I remarked that these responses to change displayed themselves in emotion, attitude, and behaviour.

The emotions I documented in my journals run quite a gamut from “feeling excited and confident about the change in environment and people” to “feeling like a misplaced person; a little out of my element; disconnected and insecure about certain aspects of the job” (McDougald, journal entry, September 29, 2006). My response behaviours included “hiding out at the office; avoiding difficult schools and teachers; communicating less with colleagues; retreating into myself.” My attitudinal responses displayed a “me against them” perspective: “they aren’t very welcoming; they still don’t seem to understand what I do; they don’t return my emails; their commitment continues to be slow to nonexistent; they focus more on behaviour than on learning” (McDougald, journal entry, November 5, 2006).

The feelings, attitudes and behaviours that I have experienced over the past 2 years have left me feeling confused and unclear. Why was I responding to this self-initiated change in this manner? I certainly hadn’t anticipated being buffeted by such a

range and depth of feelings. This career change was a jump into much deeper waters than I realized.

Literature on response to change, resistance to change, and change management has offered me a “life jacket” to stay afloat as I investigate my response to a self-initiated change. Bridges (2003) enlightened me when he explained that “it isn’t the changes that do you in, it’s the transitions” (p. 3). Bridges explains that the emotions that people feel when change occurs are similar to those of grieving because what people are grappling with is not what is new about the change but rather what they have lost, what they have had to let go of in order to adapt to the new changes. This first phase of transition is an ending (not a beginning, as we so often view change) and it involves “letting go of the old ways and the old identity people had” (p. 4). Bridges’s perspective on change was fundamental for me in understanding what I was going through during the first 2 years of my educational career change. I realize now that I was struggling (and still am struggling to a degree) with letting go of the professional identity that I knew and all of the integral factors that made up that identity.

Even changes that are self-initiated and sought after can cause people to feel strong feelings of doubt and uncertainty. Conner’s (1993) model of the Stages of Emotional Response to a Positively Perceived Change also provided me with a reference to better understand my response to my personal change event. Conner’s model helped me to realize that my initial optimism for my new job was normal and, as I began to become more informed about what my new job was really like, that I had developed a sense of pessimism and doubt. These emotions were also quite normal as I was feeling overwhelmed with my loss of identity and certainty in my capabilities. Conner explained

that it is during this second stage that people often feel like they want to “check out” and I certainly have gone through those feelings. All these stages are part of transition; according to Bridges (2003): “Even in these good changes, there are transitions that begin with endings, where you have to let go of something. . . . The failure to identify and get ready for endings and losses is the largest difficulty for people in transition” (p. 8). Had I been more aware of change theory and the losses that should be anticipated, I probably would have accepted the wave of emotions, attitudes, and behaviour as normal and maybe would have gone a little easier on myself. Maybe I would have had less doubt and would have been able to console myself that what I was going through was normal and just part of the transition process.

So if all change involves loss, then just what specifically was I losing with this career change? From what contexts was the loss being swept away with the new tides of change? Toll (2005) states that “change [is] situated—meaning that it depends on myriad shifting factors (p. 30). It would make sense then that response to change is situated as well and it is situated in the personal and social context in which the change is experienced. That is why two people can experience the “same” change in remarkably different ways. So what were the specific contexts to which I was responding? I think it is important to know this because it helps me to understand myself better as an educator and possibly helps me to prepare myself for future career changes that will inevitably occur.

Bridges (2003) highlighted that change was identity-altering. Contexts that influence a person’s identity are social, economic, and political. As I investigated my own loss of identity during this career change I began to see that I was grieving the loss

of particular social and political situations. In my former role as an elementary school learning resource teacher, I had built strong relationships with the teachers who I worked with. They respected the work that I did and they believed in my abilities. The following performance appraisal provides some insight to the professional relationships I had built in my former role as a learning resource teacher:

She modifies programs effectively and teaches other teachers to do so in order to respond to needs of exceptional students. ...She effectively trains students and staff to use technology to support student learning and achievement. ...Mrs. McDougald learns with and from colleagues. ...She shares with colleagues learning acquired through participation in system-wide and provincial initiatives. She serves as a resource to co-workers in use of technology, assessment strategies, and parallel programming. (G. Main, teacher performance appraisal, summative report form, February 28, 2006)

As I began to work with so many new teachers in 17 schools as a system learning resource teacher, I was grieving the loss of relationships and communication skills that had been built with a group of people that had developed a social and cultural understanding—a way of working together and appreciating each other. In my former role, the relationships that I had built and the respect that I had achieved allowed me a certain political acumen and influence. People were willing to listen to my ideas and try new strategies because they trusted me. In my first action research project, seven of the teachers in my school participated in a study of the benefits of word prediction software. In my conclusion I wrote:

The third and perhaps most important process [contributing to the success of the project] was the creation of trust and collaboration amongst myself, educational assistants, and the teachers. The teachers knew that there was always support available to help them and their students through technical difficulties; support to problem solve through self-esteem and motivational issues, and support to celebrate the weekly successes of children for whom writing has been an arduous task. (McDougald, 2006, p. 105)

As I began my new role, I had none of this political influence over the people I was meeting. This made the job very difficult and I was definitely grieving the loss of that political influence. This “drifting” space made me question my professional identity. Just who was I in this new role? The social and political factors that had helped me build a strong identity in my former role were no longer there and I was adrift in unknown waters.

Thinking about my losses through the lens of social and political factors helped me to understand certain emotions and behaviours that I was exhibiting; however, I knew that there were deeper, more ideological issues that I was struggling with. In her research, Evans (2000) discovered “that individuals’ attitudinal responses to change are determined by the extent of compatibility between their own ideologies, values and beliefs and those reflected in the changes they encountered” (p. 185). This explains the “me against them” comments I uncovered as I reviewed my personal journal entries:

Teacher contact and commitment continues to be slow to non-existent....E.A’s are receptive to my ideas—this helps the kids but doesn’t change teacher practice or beliefs....LRTs/Teachers occupy their energy and time with behaviour

management. Not sure they are focused on learning objectives. (McDougald, journal entry, November 5, 2006)

These attitudes that I was expressing in my personal journal were an ideological response to situations that were clearly counter to my values and beliefs. This new role as system learning resource teacher had swept me into environments where values and beliefs about how we should educate special needs students were markedly different from my own.

I was swimming in unfriendly waters. I was hoping to influence the teachers that particular resources and programming would allow the students to achieve some success and these teachers were focused on getting the students out of their classroom and having someone else “fix” their problems and “bring ‘em back ready to learn.” I found myself during these times longing for my former school where most of us believed in the inherent goodness of all our students and celebrated together the small successes our students with special needs were making. I was grieving the loss of a community of educators with deeply rooted values and beliefs.

The following excerpts from my teacher performance appraisal give some insight into the kind of understanding environment in which I was used to working:

Mrs. McDougald applies knowledge effectively about how students develop and learn physically, socially, and cognitively....recognizes student difficulties and effectively motivates staff and students to improve student learning....seeks and effectively applies approaches for helping students cognitive, affective and social development and provides responsive and thoughtful feedback on assignments....uses student work to diagnose learning difficulties and provides

appropriate remediation....considers individual needs of students, the learning environment and teacher skills when selecting resources. (G. Main, teacher performance appraisal, summative report form, February 28, 2006)

I was coming from an environment where teachers and educational assistants believed that all students were capable of learning, that all students had strengths and talents to share, and that it was the job of the educators to work together to provide a program that highlighted those strengths and allowed the child to feel included, respected, and successful.

Reading Corbett, Firestone, and Rossman (1987) opened up further understanding of my struggles with my self-initiated change. Citing Wilson, the authors note that, “Culture is socially shared and transmitted knowledge of what is, and what ought to be, symbolized in act and artifact” (p. 37). Entering into a system level job meant that I was leaving “the school teacher” culture behind. However, the culture from my former school is still deeply embedded in my psyche. It told me who I was and how I should behave. It also told other people who I was and they clearly understood what I did for a living. I have found that over the last 2 years I have dealt with many bouts of guilt. I am working each day in schools where the educators treasure their sacred preparation time and worry about the looming report card time. These are events which bind the cultural identity of teachers and they are events in which I no longer participate. In schools, teachers take pride in the clubs and sports events they organize for students. These are events in which I no longer am a part. Until I read Corbett et al., I did not appreciate the depth and breadth of the cultural loss I was feeling in my new role. Exasperating this loss is the fact that a new cultural identity has been slow to form in the new role. Although I

have formed strong relationships with the other three system learning resource teachers and we have begun to develop an “office” culture at our work place, I continue to grapple with feelings of guilt because the so-called office culture differs so greatly from the former school culture I am having difficulty letting go.

Analysis of my responses to a self-initiated change event has been beneficial on many levels. As I have analyzed the factors and contexts that affected my responses I have come to a deeper understanding of myself as a professional. Before the analysis I would have stated that I did not operate in political context with people. I realize now that I did engage in political influence over other people because of the relationships and trust that I had built and that I used that political influence to affect change in people’s attitudes and practice as it pertained to special needs students. Rereading my teacher performance appraisal revealed this to me:

Theresa McDougald is a leader and facilitator in our school in the role of the learning resource teacher....She continues to increase our effectiveness using a whole-school approach to student support. She understands that continual professional development is necessary and is diligent in supporting the PD of all in the school. (G. Main, teacher performance appraisal, summative report form, February 28, 2006)

I realize that political influence is built over time, is earned, and cannot be easily transferred to new settings or groups of people. I am confident, however, that I can build new influences in the schools where I now work but it will take time and care.

This analysis has made me acutely aware that I hold very deeply rooted and passionate values about the kind of programming and care special needs students should

have. These values put me at odds with some of the environments in which I must work. I realize that as a system learning resource teacher I need to provide pressure and support in order to create environments that are more inclusive for students with special needs. I need to work on building relationships and trust with the teachers I encounter so that they will respect me and be open to my ideas and strategies. I need to be present in those “difficult” schools and classrooms rather than retreating to the office to dream about the “good old days.”

As I grapple with my own loss that this career change has evoked, I realize that as a representative of change in Special Education in my school district, my presence represents change to others. When I suggest the use of resources, assistive technology, or instructional strategies to a teacher, I may be poking at ideologies, values, and beliefs that he/she holds sacred. I may be a stimulus that causes ripples or waves in the cultural waters in which the teacher is accustomed to swimming. I understand now that a teacher’s response to a suggestion I make is rooted in her or his own transitional journey of change and is not a response directed at me, personally. Now that I understand the myriad factors that affect a person’s response to change events, perhaps I can assist teachers with their own transition. As I see how long my transition has taken to a new beginning in my system role, I hope that I can better appreciate that some of the strategies I suggest represent significant change for some teachers and that letting go of old strategies and adopting new ones is going to be a lengthy process—one that I need to respect as natural and normal for them. I need to focus on how teachers are experiencing the change and in what contexts they are feeling loss so I can better support their transition.

This analysis has helped me to develop a framework for professional reflection. Now as I grapple with responses to environments and to people, I have a lens through which I can analyze my emotions, attitudes, and behaviours and I can see which factors are affecting my responses. I also feel that this analysis has helped me to shape and mold a new professional identity. I began this journey in uncharted and choppy waters. I was swimming on my back, looking back at the shore that I had left, longing for the way things used to be. With time, support from colleagues, and the nurturing care that comes with personal reflection, I am swimming forward. My strokes are getting stronger and I can see the lighthouse in the distance, guiding my journey. I am riding the wave and I am learning to surf!

Values and Influences: Unearthing Established Values to Support the Reshaping of a Professional Identity

As I find myself treading water in the new “system” sea, I find a need to go back, way back. Who am I at my core? Who and what influenced me? What are my core values? Where did they come from? What are my personal and professional values? These values will become my life preserver as I venture forth in my educational life.

This next segment will explore childhood influences and values as well as professional experiences that solidified beliefs and values as they pertain to children with special needs and my interpersonal working relationships with my colleagues.

Early Influences That Formed Values and Shaped Identity

My mother raised four children on her own. I was the youngest. My father was very infrequently involved in our lives—neither physically nor financially. What kind of effect did this familial context have on the formation of my values as a person and as an

educator? What kind of effect did this childhood situation have on my sense of personal and professional identity? To answer these questions I will attempt to describe to you the most influential teacher in my life—my mother.

Although I grew up in what would have been considered poverty, I never knew it. By financial definition we were poor: we lived in rental properties, moved when the rent got too expensive (I had 7 childhood homes), and we didn't own a car. My mother worked every day but brought home income below the poverty line. I didn't know any of this though because my mother did not display an attitude of poverty. Never did I hear her lament about money or express bitterness about her situation. She possessed excellent domestic skills: sewing clothes and making inexpensive, nutritional meals. We had all we needed but not a lot of extras, as far as possessions were concerned.

My mother's most beautiful possession, however, was her attitude toward life and people. My mother could always find the beauty in the simplest of things—for her, the glass was always half full. My fondest memories of my childhood are working with my mother in the kitchen and garden, listening to country-and-western music albums on our turntable, and seasonal walks in the neighborhood. My mother instilled in me the importance of togetherness—that tasks, when shared with another, were always more enjoyable and less like work. This importance of togetherness was coupled with a sense of duty and service to family and job. It is only now as a working mother and wife that I can truly appreciate the sacrifices my mother made to ensure that her children were fed and clothed and loved. My husband and I share the household and parenting duties. It could not have been easy for my mother to maintain a sense of stability, security, and

predictability while doing it alone and when finances were so tight. Yet she did and all the while creating an environment that was positive and joyful.

As I consider the values which form the foundation for my practice as an educator, I see more clearly than ever my mother's influence. I attempt to create positive attitudes and joyful working environments because I believe that in doing so we discover the beauty in our world and in each other. I value collaboration and togetherness with my colleagues because I believe working together lightens everyone's load and increases everyone's educational understanding. Most importantly, I feel a strong sense of duty and service to the children and educators with whom I work and study because it is through service to them that I let them know they are educationally cared for and valued.

One of the consequences of being the child of a single parent is the expectation that you must do things on your own. I grew up watching my mother make her own decisions and not rely on any one but herself to get things done. She rarely put herself in a position where she relied on another person. This level of independence was expected of me as well. This expectation of independence was symbolized in the house key I was given to carry with me at all times. I was a "latchkey kid." At lunch time I was expected to come home on my own, make my lunch, and get myself back to school on time. After school, it was expected that I would be independent in getting my homework done and supper started.

This idea of independence is an integral part of my personal and professional identity. Although this fierce independence has allowed me to persevere through difficult tasks and helped me to succeed in many endeavors, it has also had some unfortunate side-effects. To a fault, I do not always seek assistance or help when I probably should. My

first instinct in difficult situations is to think that I shouldn't need anyone's help and that I must solve this on my own.

Another consequence of being the child of a single parent was the persistent feeling of being different from my friends. Growing up, I was the only one of my friends who came from a divorced family. I was aware from an early age that my family dynamic and culture was different from most of the kids I knew. I remember, very painfully, the last few weeks in June in elementary school when we would make father's day crafts in class. To whom was I to give that lovely paper tie? Who would read that little poem on the inside?

Because our financial situation caused us to change households, neighborhoods, and schools, I was the "new kid in class" on four different occasions before I entered high school. Each move got progressively more difficult and the sense of "being different" got even stronger. In order to cope with these continual changes in living and learning environments, I believe I developed a behaviour of adaptability to change. On the surface I can seemingly enter into new physical environments and group situations with ease, adopting new norms and becoming part of the new culture. However, I have realized that what I don't do is form deep-rooted attachments to places or people.

As an educator I believe that these aspects of my childhood have created in me an empathy and compassion for children who may also have a sense of "being different" from their classmates and also those children who move from school to school. I am sensitive to how their situations can have negative impacts on their learning and their ability to form good friendships.

A childhood can have a very powerful influence on values and identity, and yet our adult experiences are also influential. In the next section I discuss the professional experiences that I feel were seminal in developing the values I hold dearly as an educator.

Professional Influences That Shaped My Values

I have been an educator for 20 years now. I am not the same educator I was when I began teaching. The colleagues whom I have worked with, the students whom I have been blessed to teach, and the professional development that I have been exposed to have all helped to mold me into the educator I am today. In this segment I explore the professional experiences I have had and the people whom I have worked and lived with who have had an important influence upon me. I believe that these people and experiences have shaped my identity as an educator and have exposed me to beliefs and values that I use to guide me in my work with teachers and students with special needs.

We Are All Good People

Just what are the values that make up the foundation of my personal and professional life? Jean McNiff (2007) states that “in action research reports, the content is about accounting for oneself through a process of showing the validity of the work as it links...with realizing the researcher’s guiding values” (p. 319). I believe my most predominant guiding principle is “we are all good people.” My husband coined this phrase. This principle helps me to remember that all people, children and adults alike, are striving for goodness; are striving to make sense of the world around them; are striving for their best way, their right way, their “truth.” It reminds me that although people have differing opinions and perspectives, all people are inherently good. It

reminds me that although people may not see my perspective or share my passion, they are acting with good intention.

I am not exactly sure when my love affair with students with special needs began but I know that the principle that “we are all good people” is what drew me to them. From my very first days of teaching I was always observing and asking questions about the ones who were not “getting it”; the ones who were not succeeding. Although they were not good students (as it pertains to being able to meet curriculum expectations), I knew in my heart that they were good people and that there had to be more to teaching than separating those who can from those who can not. I strove to see the goodness in all my students regardless of their academic ability and I made it my goal that each child would know that I believed in him/her and that he/she was valued as a person. I made it my goal to stand in front of a classroom of children and see people first and students second.

In the early 1990s, I became aware of the work of Howard Gardner (1993) and his notion of Multiple Intelligences. As Smith (2002) observes, “Gardner viewed intelligence as the capacity to solve problems or to fashion products that are valued in one or more cultural settings” (p. 3). Using biological as well as cultural research, Gardner developed a list of seven intelligences. Traditional views of intelligence recognized only two intelligences: verbal and computational (Brualdi, 1996, p. 1). Gardner’s work began to expand my thinking about why some students were not successful in their learning at school. It reinforced my belief that we are all good people and that we are thinking and learning in different ways that require different methods of instruction and varying ways of expressing our knowledge and understanding. Perhaps

children were experiencing difficulty at school because they possessed an intelligence that didn't mesh with the instructional practice of the classroom. Affected by Gardner's work, I began to offer my students varying ways of showing and expressing their learning.

In the late 1990s I was introduced to the work of Richard Lavoie (2008) while taking an additional qualification's course for teachers in Special Education. Lavoie had done extensive work with students with learning disabilities and was advocating for accommodations for these students to remove the barriers and challenges that their learning disability cause them. Students with learning disabilities are often judged as lazy, unmotivated, and even stupid. Lavoie talked about making learning fair for these students and that fairness did not mean sameness. Lavoie is best known for the following statement: "Fairness does not mean that everyone gets the same thing. Fairness means that everyone gets what they need" (2008; see References list for complete YouTube URL). Lavoie's notion of fairness versus sameness reinforced once again that my students were all good people who simply required different methods and tools to be successful at school. The accommodations that can be provided to students with learning challenges allow their goodness to come out.

In the summer of 2004, I had the opportunity to participate in some incredible professional development offered by my school board. The 1-week course was called "Schools Attuned" and the course is offered through the All Kinds of Minds institute (All Kinds of Minds, 2008). The course is based on brain research and development and it teaches the neurodevelopmental functions of the brain that are required to complete

school tasks. In his book, *Educational Care* (2002), Dr. Levine, a pediatrician and former researcher with the All Kinds of Minds institute, states:

Needless suffering occurs whenever children grow up disappointing themselves and the adults who care about them. Often they do so because they perform inadequately in school. Unfortunately, these children come to question their own worthiness, as they gaze about and compare themselves to others. Often they conceal profound concerns about their minds, believing that somehow they are defective or inferior. We are describing the sad plight of children who have difficulty performing certain highly age-specific roles that are needed to keep pace with the demands imposed in school. These young students often create confusion in their parents and their teachers. (p. 1)

Reading Dr. Levine's book and participating in the Schools Attuned professional development course made me realize that this principle of "we are all good people" was one that I not only had to aspire to myself but that I also had to teach to my students. It was my job as an educator to teach my students to believe that they were worthy, good people and to teach them to see their fellow students in the same light.

The Schools Attuned program is based on nine guiding principles which encourage educators to appreciate the diversity in all their students. The principles encourage educators to achieve a high level of specificity in our understanding of children's strengths and weaknesses; to label observable phenomena rather than children; to help learners learn about learning; and to infuse optimism for kids with all kinds of minds. As I completed the Schools Attuned practicum portion of the program in March 2005, I felt assured that my own guiding principle was completely in line with those of

the program. I also realized that as a Special Education leader in my school I needed to teach other educators to view the special needs students in our school as diverse people worthy of respect and understanding. It was at this point in my educational career that I realized that part of my job was to use my influence, passion, and principles to help educators to see special needs students through a different lens.

Teaching Them to Fish

At the time that I completed my Schools Attuned training (2004–2005) I was a learning resource teacher at my school. In my role, I spent a good deal of my time trying to remediate reading and writing skills in students who were not meeting grade level expectations in the Language curriculum. I was amazed at how much effort these students would put into sounding out words, decoding words, spelling words, and getting proper sentences down on paper with often dismal results. I could see where the neurodevelopmental constructs of memory, language, and graphomotor skills that the Schools Attuned program spoke about were breaking down in these students. I was also struck by how dependent these students were on me, their classroom teacher, or educational assistant to complete school work. Because of their learning disability they were often dependent learners.

It was around this same time that I began to explore various computer software programs that had become available in my school. These programs were called assistive technology because they were designed to help bypass reading and writing difficulties that students might have. I specifically began to investigate text-to-speech software called Kurzweil and word prediction software called Co:Writer. As I trained students to use these assistive technologies, I was amazed at how quickly they learned to use them

and how the technology helped them to become more independent in their reading and writing. I saw this as a real-life testimony to what Richard Lavoie has spent his life advocating. These assistive technologies represented a fair yet different approach to reading and writing for these students with learning challenges.

I conducted my first action research project that year (2005–2006) entitled “How Can I Enable and Support Students and Teachers With Implementing Co:Writer Word Prediction Software in Their Regular Writing Program?” (McDougald, 2006). It was through that research that I became convinced that assistive technology could turn frustrated and dependent learners into motivated, independent learners. The teacher survey results from my study indicated that students displayed “increased written output, increased independent work, increased attitude and confidence to work and increased self-esteem” (2006, p. 104).

I remember thinking of the Chinese proverb, “Give a man a fish and you feed him for a day. Teach a man to fish and you feed him for life.” Instead of feeding my students a diet of flashcards, decoding exercises, and spelling drills to remediate weaknesses in language, memory, and graphomotor skills, the assistive technology was allowing the students to bypass these weaknesses and giving them the tools and skills they needed to become independent readers and writers. It was as if the students had been handed a fishing pole and a bucket of worms. They were learning to fish and nourish themselves academically.

My first action research project had another focus as well. I was convinced of the benefits of assistive technology for students, but were their teachers convinced? If they were convinced, were they able to include the use of assistive technology into their

regular practice? I wanted teachers to become independent in their use of the technology and to promote its benefits to their students. How was I going to inspire teachers to explore and trust the technology and to develop a desire to want to investigate the use of assistive technology in their classrooms? I wanted them to learn to fish in the assistive technology waters, not rely totally on me to provide all the instruction and support for assistive technology. Teachers needed modeling, coaching, and encouragement with learning how to use the technology. They needed to be shown what a difference it made in the students' school work and the teachers needed to be shown how it connected to what they were teaching in the classroom. The outcome of my first action research project was a new professional quest—an investigation into how I influence others to change their practice. How does one influence and inspire another?

Inculcate by Precept and Example

I have never been a person who likes to tell others what to do. I have never been a person who professed to know the best way of doing something. I always felt that one was better off to just live what you believed and the joy and happiness that oozed out of you was going to catch people's attention. I found that although there were always students in my classes who were not interested or motivated to learn what I may be teaching, I did a better job of reaching them through listening to them and encouraging them than I did by forcing them to do things they didn't want to do. I found that compromise and flexibility got me further ahead than did confrontation and force.

In 2007, I began to explore the characteristics of adult learning and constructivist learning theory when I became involved in an Instructional Leadership course offered by my school district and I also was learning coaching techniques and how they applied to

my new role as a system learning resource teacher. In 2008, I had the opportunity to train to become a facilitator for the Schools Attuned program. During my training as a facilitator, I read an article called “The Zen of Facilitation” by Joellen P. Killion and Lynn A. Simmons (1992). In the article, Killion and Simmons outline that facilitators model attitudes and behaviour. Group members’ attitudes and behaviours are strongly influenced by the facilitator’s attitudes and behaviours. When the facilitator models the productive behaviours of respectful listening, maintaining personal safety, honoring various perspectives, sharing, trusting, risk-taking, and disclosing, then group members will mirror these behaviours. Through this process, a nurturing environment emerges. (p. 5)

When I read this passage I was brought back to a phrase that I read in the *Education Act* of Ontario during my year at Teacher’s College—inculcating by precept and example; that we lead by modeling the attitudes and behaviours we would like to see in others (OME, 1986, Sec 235 c).

Killion and Simmons (1992) cite Heider in their article:

Remember that you are facilitating another person’s process. It is not your process. Do not intrude. Do not control. Do not force your own needs and insights into the foreground. If you do not trust a person’s process, that person will not trust you. (p. 3)

This quote struck me because my new teaching role required that I work collaboratively with classroom teachers to facilitate them in differentiating their instruction for their students with special learning needs. I was learning quickly that trust was of the utmost importance and that I couldn’t force ideas or strategies on a teacher but

I instead had to listen and ask good questions that allowed the classroom teacher to deepen his/her understanding of the student's needs and what might be needed to improve the student's learning. I realized that I had to lead by letting the teacher go first.

As I began my role as system learning resource teacher, I was asked to read *The Literacy Coach's Survival Guide* (2005) as an introduction to the notions of coaching and adult learning. In her book, Cathy Toll outlines the role of the "coach" in this way:

Coaching supports significant change because it provides a foundation for teacher reflection, action research, collaboration, and informed decision making, all of which can lead to significant educational change....Coaching is not about telling others what to do, but rather bringing out the best in others. (p. 6)

It seems that the literature and experiences I have been exposed to over the past 2 years are really highlighting my deeply grounded principle of leading by precept and example. Interestingly enough, I found leading by precept and example a much easier task with students than I am finding it with teachers. Somehow it was much easier and felt more natural to "let my beacon shine" with the students than it is with adults. It has been the most difficult challenge to live my principle of leading by example and trusting in the wisdom of the learner when that learner is an adult. I find myself continually questioning the depth and impact of my influence on the classroom teachers with whom I collaborate.

Summary

My action research study—answering the question: What is the nature of my influence as an educator and how can I use that influence to assist teachers in adopting Premier Assistive Technology into their daily practice and into use for provincial

assessments in Grade 3 and Grade 6—attempts to investigate a particular aspect of my teaching practice and attempts to assess whether I have honestly embedded the aforementioned values and principles into my practice. It is my hope that through this investigation I will come to a deeper understanding of how my principles allow me to influence and inspire fellow educators in their learning.

Taking Ayers's (2001) advice, I have spent the last 2 years engaging in a "serious encounter with autobiography" (p. 124). I have explored the forces that shaped me both personally and professionally. This has not been an easy task for me. I hope and believe that I have been living and working in ways that were value-guided but clarifying and articulating just what those values were and what or who influenced them was extremely challenging for me. Having done so, however, I feel I have a much more secure sense of self as an educator. I believe myself to be a person with the following values:

1. I value a positive attitude,
2. I value a joyful working environment,
3. I value collaboration and togetherness,
4. I value my sense of duty and service to others,
5. I believe in the intrinsic goodness of others,
6. I believe it is important to build independence in others, and
7. I believe the one should model the attitudes and behaviours that one wants to see in others.

For the past 3 years I have found myself in an environment which has challenged my values and beliefs and which has shaken my confidence in my professional identity. The focus of my educational influence has been directed more toward the teacher and less

toward the student. I have had to shift my attitudinal and behavioural “ways of doing things” and I question whether I have been able to hold firm to the values I claim to possess. Do I truly understand what it means to coach and collaborate with teachers? What is the nature of my influence as an educator of educators?

In the next chapter I attempt to expose the educational climate of assistive technology and professional collaboration by reviewing pertinent literature and my two previous action research projects in the area of assistive technology. It is my hope that through reading the literature review the reader will have a clearer picture of the important issues that exist around the topic of implementation of assistive technology into classroom practice and the importance of professional development for educators in that assistive technology implementation.

CHAPTER TWO: THE EDUCATIONAL CLIMATE OF ASSISTIVE TECHNOLOGY AND PROFESSIONAL COLLABORATION

My research question focuses on two main areas: assistive technology and the nature of influence. This chapter will attempt to describe the educational climate of assistive technology and the educator-to-educator relationship by highlighting current research-based literature in the areas of assistive technology and professional growth and development through the coaching model. I have prepared the following vignette which I hope will give the reader a view into the present educational climate of teaching, learning, and collaboration as it pertains to assistive technology and its use in the classroom as a tool for reading and writing:

Mr. Jones, a grade 4 teacher, is sitting at his desk. His students have headed for home and he is reflecting on the day. He is thinking in particular about three of his students who have learning disabilities. “They didn’t produce much work today—two or three sentences at most on their writing assignments. They really struggled with the reading passage we worked on today.”

Mr. Jones stares at the classroom computer at the back of his classroom. He knows that there are computer programs available that can assist his learning disabled students with reading and writing. He attended an hour-long workshop last spring on assistive technology that explained the scientifically researched benefits of these programs for students with learning disabilities and he learned a little about how the program works but that was just an introduction to the technology. He doesn’t feel anywhere close to being an expert and he really isn’t sure how you are supposed to make computer programs work in a literacy

program. Mr. Jones feels like he is letting his most needy students down. He is feeling overwhelmed and frustrated. He wonders, “Who can help me figure this out?”

This vignette exposes some of the present issues of implementation of assistive technology into classroom practice:

In many school districts new technology is purchased and teachers are expected to quickly begin using it with their students. Training sessions are offered but even after the sessions many teachers still don’t know where to begin or how the program “fits” with their teaching and classroom. (Grant, 2008, p. 28)

Mr. Jones is struggling to understand just what assistive technology is and how it will benefit his students. Secondly, he is struggling to figure out how he can take the theory of assistive technology and make it “fit” into his literacy program; thirdly, Mr. Jones knows that he needs assistance from a support person to help make the transition to this new way of teaching and learning for him and his students. This chapter will explore these three main issues.

What Is Assistive Technology?

There are approximately 29,000 assistive technology devices that exist for individuals with disabilities (Wolfe Poel, 2007). For the purpose of this paper, I am referring to three particular types of assistive technology that are used to support reading and writing for students with learning challenges. These challenges impede their ability to access and produce print at their intellectual-ability level. The three technologies are as follows:

OCR (Optical Character Recognition). This software is used in conjunction with a scanner. Print material is scanned into a computer and the OCR software “separates the text from any pictures in the text and converts text information into a text format” (OME, 2005, p. 130).

Speech synthesis (screen readers or read-back software). This software is used to read aloud text that is displayed on a computer monitor. Many recent speech synthesizers highlight each word as it is read aloud, allowing the students to track visually the words they are hearing read to them.

Word prediction. This software works in conjunction with word processing software. The word prediction software begins to predict high frequency words that begin with the letter the student types. The students can click on a word to hear it read to them and double click to have the word put into their text.

In my school district there is a suite of software available to all students called Premier Assistive Technology. Premier Assistive offers OCR, Speech Synthesis, and Word Prediction technology and each has been used by the students and teachers in this study.

Does Assistive Technology Really Help?

The use of OCR and speech synthesizer technology allows for better comprehension of texts as the technology compensates for the poor decoding ability of certain students. These technologies have proven to be very effective for students who display no real difficulties with comprehending spoken language (OME, 2005, pp. 130-131). Word recognition and decoding skills may actually improve by using the technology regularly because students are experiencing the text bimodally (visually and

aurally). As each word is read it is highlighted. Students visually track the words as they hear them and this can help the student to pay attention and remember more (Silver-Pacuilla & Fleischman, 2006).

One study showed that the greater the severity of the reading disability, the more the technology elevated reading comprehension. However, the technology actually appeared to impede individuals who displayed only minor decoding problems. This research highlighted the importance that the technology must be matched carefully to the relative needs of the specific individual, task, and setting (Raskind, 2005).

Studies of the effectiveness of word prediction software have shown positive results for students with written output impairments due to severe spelling difficulties, poor handwriting, or spatial difficulties. Case studies show that word prediction can increase the quantity and quality of student work as well as improved spelling and legibility (Allen, 2008; OME, 2005).

My first action research project, which investigated the effectiveness of word prediction software, showed increased pride and motivation on the part of the students as they were able to produce legible, error-free texts: “I feel good about what I write with Co:Writer....I feel better about my writing.” All students in my study increased the quantity of their written output using the word prediction software than they normally wrote when using paper and pencil. My action research also showed increased ability on the student’s behalf to self-edit texts because of the text to speech component: “I like that it reads to me....spelling is better....It has its own dictionary and you can program your own words into the dictionary.” Students could have their written work read back to

them by the computer program and edit for any omitted words, misspelled words or grammatical mistakes (McDougald, 2006, p. 102).

Many studies report on the “affective” influence of assistive technology on the student. The use of assistive technology can increase engagement and motivation for academic tasks (OME, 2005; Silver-Pacuilla & Fleischman, 2006). From the teacher’s point of view, assistive technology can enhance the ability of the teacher to challenge the student and individual academic goals can be achieved at a more efficient rate (Allen, 2008). But perhaps most importantly, “assistive technology can mean the difference between a student actively participating in the classroom or being an outside observer” (Wolfe Poel, 2007, p. 66).

The research pertaining to the effectiveness and benefits of assistive technology for students with learning challenges has been so convincing that it has been imbedded into Special Education documents promoting its use as an instructional and learning tool. In the OME’s (2005) *Education for All, the Report of the Expert Panel on Literacy and Numeracy Instruction for Students with Special Education Needs, Kindergarten to Grade 6*, there is an entire chapter devoted to computer-based assistive technology. The document describes assistive technology as playing an “important role in the provision of instruction based on universal design” (p. 127). With the use of assistive technology in the classroom,

the teacher can support all students with equitable access to all aspects of the learning experience—equal access to the curriculum where this would otherwise be not possible or very difficult, and equal access to the tools needed to access the curriculum. (p. 127)

In the Elementary Teachers' Federation of Ontario's (2007) *Special Education Handbook*, the use of assistive technology as an instructional or assessment strategy appears frequently as a recommendation for various special needs including articulation, fine motor skills, low intellectual ability, memory, and processing speed.

The Theory-Implementation Gap

In the opening vignette, a significant issue was highlighted in the educational climate as it pertains to the implementation of assistive technology. Mr. Jones was struggling with the gap between the purported benefits of assistive technology and the actual implementation into teaching and learning practice. This gap has been the topic of several important studies in recent years.

Between 2001 and 2006, the National Assistive Technology Research Institute (NATRI), funded by the U. S. Department of Education, conducted various research studies to examine the planning, development, implementation, and evaluation of assistive technology (AT) services in American schools. One investigative study looked into the level of access that was offered in teacher graduate and undergraduate courses. The studies showed that just over half of undergraduates and just under half of graduates had limited to no access to AT devices during their program. It was reported that most AT skills are developed outside of institutions of higher learning and are often focused on specific devices and provided by specific AT vendors (NATRI, 2005). Another NATRI study reported that professionals providing AT services were not using a consistent, planned implementation of AT with their students. Fifty-two percent of the respondents stated that there was no AT plan in place, yet most districts reported having AT policies, guidelines, and technical assistance documents available in their districts. Seventy-nine

percent of teachers responded that they needed more AT training on general AT awareness (NATRI, 2005).

Hasselbring and Bausch (2005/2006) interpret the NATRI study results and report that students with severe disabilities used AT devices more often than students with learning disabilities and that AT was used more often in special education classrooms than in regular classrooms. They report that “regular education teachers appear to rely on specialists for information about AT, reporting that they know little about available AT or how such tools can be used” (p. 72). In a study completed by Linda Chmiliar (2007) from Athabasca University, it was reported that 70% of elementary and secondary teachers from Alberta, Canada had not had an opportunity to be trained in AT; the majority of the teachers reported needing support in the area of AT; and the most significant barriers to the use of AT were listed as funding, time, lack of equipment ,and classroom support.

Dr. Donald Deshler (2005) explains the reason for this gap between research and policy on one hand, and classroom practice and implementation on the other, in *Intervention Research and Bridging the Gap Between Research and Practice*. Deshler states that promising research findings do not always effectively translate into classroom practice. He suggests that “an innovation such as an assistive technology can not be proven to be ‘scientifically based’ unless it has been proven effective and usable in front line settings” (p. 2). Deshler summarizes the work of Greenwood and Abbot (2001) to explain the gap between research and practice:

that researchers fail to involve practitioners in the research process as meaningful and valued partners; that research is often conceptualized and conducted in

settings that are different from the realities of schooling; and that there are limited opportunities for meaningful professional development (i.e., there is often a heavy reliance on traditional models of professional development that call for top-down transmission of information to teachers. (p. 2)

Other fundamental barriers to the effective implementation of AT into classroom curriculum are outlined in Karen Morrison's (2007) work, "Implementation of Assistive Technology: A Model for School Systems." In her review of barrier research, Morrison reports that the training that educators get about AT tends to focus more on how the technology works than on how it can be integrated into instructional methods; that training occurs in the early stages of implementation but that ongoing support is rare; and that training usually fails to explore the learning process involved in acquiring and developing technology skills (p. 85).

A Professional Development Support Model for Assistive Technology Implementation

Mr. Jones's plea for assistance in implementing assistive technology into his teaching practice is echoed in the aforementioned research. It seems clear that the gap between assistive technology research and classroom implementation is at least in part due to a lack of appropriate training and professional development for classroom teachers.

In 2006, the OME released its *Special Education Transformation: The Report of the Co-Chairs with the Recommendations of the Working Table on Special Education*. The report highlighted eight critical issues in Special Education requiring attention in order to "achieve the desired transformation and realize this vision of Special Education

in Ontario” (p. 6). One of the critical issues requiring change was Professional Development. The document sets a goal to increase the capacity of all staff to educate a wide range of learners. It recommends

specific and systematic professional development related to special education for teachers, teachers’ assistants, principals, supervisory officers, and other staff.

Topics would include universal design, differentiated instruction, effective teaching and curriculum-based assessment strategies, collaborative problem-solving approaches and assistive technology. (p. 27)

In *Education for All*, the OME (2005) describes professional development as needing to be “accessible and (must) relate directly to the realities of the classroom. [Professional development] should also include follow-up support, such as mentoring, coaching, and/or lead teacher consultation, and should address how the support will be sustained” (p. 140).

Just how can professional development be made accessible, relevant, specific, and systematic so that it increases the capacity of educators? Historically, professional development for teachers has often resembled after-school workshops or professional development day sessions where new programs and technologies are introduced:

This form of “sit and get” professional development rarely changes practice, because even with the best of intentions of facilitators and an appropriate allocation of resources, it is not a given that profession development leads to professional learning. On their own, establishment workshops result in only ten percent of the ideas presented being applied by educators, unless the workplace is

redesigned to include peer coaching or action research. (Joyce, Wolf, & Calhoun, 1995, as cited in Hannay, Wideman, & Seller, 2006, p. 19)

Peer Coaching

Hannay et al. (2006) define peer coaching as two educators working together to improve their practice. In an expert coaching situation, one educator has an expertise that he or she is helping a colleague/peer develop and apply. In cognitive coaching the educators focus on the thought processes behind teaching rather than on the teaching methodology itself. As Hannay et al. note, “The various forms of peer coaching provide ways of identifying existing tacit knowledge and bringing it to the fore to be examined and possibly applied to the authentic problem. Peer coaching also helps teachers develop and use new teaching methods” (p. 58).

The peer coaching support model has been used extensively to promote professional learning in the teaching of literacy. Toll (2005) explains that the literacy coach supports student achievement by assisting the teacher in identifying his/her strengths and in growing capacity within the teacher (p. 4). “Coaching supports significant change because it provides a foundation for teacher reflection, action research, collaboration and informed decision-making, all of which can lead to significant educational changes” (p. 6). Toll describes the coach’s working methods as follows:

(The coach) assists teachers in being reflective by providing time, space and encouragement. Time for reflection comes from one-to-one or small-group meetings in which the literacy coach and teacher(s) discuss practices, beliefs, goals, and other matters essential for consideration when doing one’s best teaching...literacy coaches encourage teachers to reflect by asking them thought

provoking questions, providing a listening ear, giving them useful feedback, and leading them in monitoring their progress over time. (p. 7)

It seems that Mr. Jones, in the vignette, was searching for a coach. Someone with whom he could collaborate, someone who could impart his or her expertise related specifically to the needs of the students in Mr. Jones's class, and someone who could guide him through an implementation plan for assistive technology and literacy.

Implementation of Assistive Technology in My School District—A Review of Personal Experiences and Literature

My experience and evolving love affair with assistive technology began in 2005. Since that time I have conducted two action research projects which have focused on the implementation of assistive technology that assists students in bypassing reading and writing difficulties. In this next section, I will explain the focus of each action research project and attempt to display how my local school district context echoes the issues outlined in the preceding literature review. I will use vignettes as a way of representing growth and learning in both students and teachers (my own and my colleagues'). It is the experiences and findings of my first two action research projects which lead to the support model that I use in this present study.

Reviewing my first two action research projects allows me to set the stage for this present study and gives the reader the background to understand why this particular support model for assistive technology implementation was chosen. Also, in reviewing the first two action research projects, I feel I am honouring the action research reflection cycle and showing the change in beliefs, values, and attitudes that have occurred in my professional practice from 2005 to the present.

Scene 1

The young boy sits at the computer with his headset on. He hunts for the key with the period on it, finds it, and presses it down. He listens attentively as Reed, the computer voice, dictates his sentence back to him. Johnny's eyes widen and a smile spreads from his left ear to his right. Johnny has just written his first correct sentence—a capital, a period and no spelling mistakes. Johnny is 9 years old. “Why are you smiling, Johnny?” I inquire. “Cause people will be able to read my writing. The words are spelled correctly. If people can't read what you've written, then you're stuck.”

Suddenly, I was becoming “unstuck.” Before this pivotal experience with Johnny, my work as a special education teacher involved countless hours attempting to remediate students who struggle with reading, writing, and spelling—sight word flashcards, word family drills, spelling mnemonics. These students put so much energy into their work with very little benefit in the long run. Many of these students had weak memories, so they couldn't commit to memory the spelling of basic sight words; they couldn't remember which letter combinations produced which sounds. Some of these students had very weak graphomotor skills. It was difficult for them to form letters properly in small lined spaces on a page. Watching these students write was painful and what they wrote didn't come close to reflecting the knowledge and intelligence they possessed.

It was the academic year 2005 and my work as a Special Education resource teacher was taking a dramatic, “I'm never turning back,” 180° turn. I was becoming “unstuck.” Johnny, a few other special learners and I were exploring an assistive

technology software program called Co:Writer, a word prediction software that helps students to identify and spell words correctly. It also predicts words that semantically would come next in a sentence. What makes this software so useful is that it reads aloud all the words that are typed or clicked on. It was precisely these features that had put such a beautiful smile on Johnny's face.

As we explored Co:Writer together, the students and I were surprised by how easy the program was to learn and use. We celebrated the improvement in their writing. The clarity and length of their sentences improved. Their spelling was virtually flawless. Their willingness and motivation to write increased. For the first time, for most of these students, they were taking pride in their writing. For the first time, their writing looked as intelligent as they were (McDougald, 2006, p. 97).

In Special Education, growth in learning and productivity can be a very slow and arduous process, so when you see almost immediate results it is time for celebration. My view of my work as a Resource Teacher was changing. Although I still felt remediation was important, I was now convinced that getting around or "bypassing" the disability was crucial for the success of these students. Assistive technology such as Co:Writer word prediction software seemed to be one strategy to bypass those reading and writing challenges. No amount of remediation that I used ever achieved the results the students were getting with Co:Writer. No amount of remediation ever created that much pride, motivation, or confidence.

I felt the need to share our Co:Writer experience with my teaching colleagues. I began by speaking to my principal and fellow teachers about the benefits of Co:Writer. They could see I was passionate about it and they indulged me while I showed them

student writing samples. The teachers even sat with me while I trained them on how to use the Co:Writer program. Surely, once the teachers had seen the proof in the students writing samples and discovered how easy the program was to learn, they would want to be using it in their classrooms and in the computer lab. Surely, they would be convinced of how beneficial the program could be in helping students with unique learning needs. I was so optimistic.

Several of the teachers at my school became interested in having their students trained on how to use Co:Writer. I trained the students and collaborated with the teachers on how they could integrate the use of Co:Writer into their classroom activities: journal writing, report writing and research, and reading responses. The teachers could see the benefits of Co:Writer and definitely noticed an improvement in the quality and quantity of writing that their students were producing. I chronicled this experience in an action research project and celebrated, perhaps prematurely, that assistive technology was making its way into the classroom as a regular tool to support written output (McDougal, 2006, p. 105).

However, I found that, over time, unless I was there to support and encourage the use of Co:Writer (either by withdrawing the student from the class or working with the student in the classroom) very few of the teachers were promoting its use in the classroom on a regular basis. Why was that? Did the teachers not feel comfortable or confident enough to use the technology independently in their classrooms? Did they consider the assistive technology to be a very specialized program that was just my domain and not theirs? Were they worried about offering access to assistive technology to just a few students? Were they worried what the other students might think or say?

Although I was pleased that teachers were adopting the Co:Writer program into their beliefs, I was left feeling somewhat frustrated about why I hadn't been able to build capacity within them to independently adopt the assistive technology into their daily practice without my support. If they really believed that the technology was good for their students and that it really improved their writing, then why weren't they willing to make it happen in their classrooms independent of my assistance?

Scene 2

A young girl listens to a story being read to her by a computer. When the story is finished she listens to questions pertaining to the story. She uses the mouse to put the cursor back into the middle of the story. Her eyes follow the text as it is being read to her. She smiles and nods to herself. "Why are you nodding, Jane?" I ask. "I'm starting to get this now. They use parts of the story in the question. I can go back to the story and find that part. Nobody has to read to me. I can do it myself. The computer is helping me by reading to me but it doesn't tell me the answers. I have to do that." For the first time, Jane is reading a grade level text independently and finding the responses to questions on her own. For the first time, Jane is relaxed and happy while she is reading.

Once again, seeing a child positively interact with assistive technology is altering my practice. Jane's smile is not something I am used to. Usually when I provide remediation for students with reading difficulties I see faces lined with grief, sadness, and frustration. Students with reading disorders have difficulty decoding words that they see on the page; they haven't been able to connect the sounds with the letters of the alphabet. Some students have difficulty recognizing whole words by sight and even if they can

recognize some whole words their reading is so laboured and unfluent that they miss the message of the text. Sometimes they struggle with the meaning of words, so there is little comprehension of what they have read. Reading is very hard work for these students and it generally does not bring them any pleasure or joy. Seeing Jane approach this text with confidence and understanding reinforced my belief that assistive technology really can make the difference between an engaged and confident learner and one who is unmotivated and defeated.

It was the academic year 2007–2008 and I was exploring a new example of assistive technology as I worked as a system learning resource teacher for Special Education. Jane and 13 other students from various schools, along with their schools' learning resource teachers, were exploring the benefits of the Premier text-to-speech software program. Premier has the capability to read text on a computer screen and it also has a word prediction component similar to Co:Writer. The learning resource teachers were marveling at how quickly the students were learning to use the program and how they were actually rereading parts of text to seek better understanding. The resource teachers noted that the students were focused and attentive to the reading and that there were fewer behavioural outbursts (McDougald, 2008, p. 29).

These students went on to use Premier to complete their Grade 3 EQAO (Education Quality and Accountability Office) assessment—a province of Ontario assessment of reading, writing, and mathematics. Premier allowed the students to access and complete an assessment that otherwise would have been beyond their reach—in fact, in all likelihood, the students would have been exempt from the assessment. The technology allowed them to be on equal footing with their classmates.

This co-learning partnership with students and learning resource teachers was an invigorating experience. It felt good to have other educators curious and excited about the assistive technology and its potential for the students. But the technology was still at arm's length from the classroom and the classroom teacher. What kind of support was going to be necessary to make Premier a living and breathing entity in the classroom? My learning resource teacher colleagues provided me with excellent feedback to guide the next steps in my practice. They suggested that time is needed to become familiar and self-confident with the use of assistive technology. They recommended developing practical, hands-on lessons and units and then demonstrating to classroom teachers how the technology can be used to complete these lessons (McDougald, 2008, p. 32). Very good advice, indeed!

Scene 3

Two educators sit in front of a computer. "So how are you feeling about this?" I ask. "I'm overwhelmed," replies Mr. Jones. "I went to a workshop last year on this Premier program but I can't remember how everything works. They decide that all these programs are really helpful for the kids and I think they are, but then they expect me to know how to do everything. I need help with it. I need help to see how this will work in my classroom with my program." I reply, "I'm here to help, Mr. Jones. Let's learn it together!"

As the 2008–2009 academic year begins I am eager and passionate about working with teachers and students in implementing Premier assistive technology into their classrooms. The Johnnys and the Janes in our classrooms deserve the opportunity to access knowledge and content in a respectful and independent manner. I believe that

Premier is one way that educators can provide that access. I feel it is my duty to ensure that that opportunity and access is provided to the students on a regular basis.

My experience with assistive technology since 2005 has shown me that passion and technical training are not enough to ensure that that happens. It is my hope that as I explore Premier assistive technology and help to make relevant curriculum connections with teachers and students this year, they will be willing to share with me the struggles that they are facing as they attempt to implement Premier into their daily practice. I hope from their feedback and reflection of my work with them and their students that I will better understand the nature of my influence as a resource teacher and that I will better understand what I have to do to improve my practice so that I can influence change in others.

Just what methods would a person use to investigate this notion of influence? What kind of study would best help an educator to know herself and her practice more clearly? The next chapter explores the methodologies and methods I used to guide and complete my study.

CHAPTER THREE: METHODOLOGY AND METHODS

In this chapter I attempt to define the methodology for my study by situating my study in established research methodologies—namely qualitative research, reflective practice, and the living educational theory model of action research. I define the different aspects of my methodology as proof that they are an accurate fit for my study. I have threaded through my explanations support from leaders in the varying fields of qualitative research, reflective practice, and living educational theory. I then go on to explain the methods I chose to complete my study and how those chosen methods represent a certain “methodological inventiveness” (Dadds & Hart, 2001, p. 169) that is unique to my study.

Methodology: Qualitative Research, Reflective Practice, and Living Educational Theory

I have used a qualitative research approach to investigate my research question: What is the nature of my influence as an educator and how can I use that influence to assist teachers in adopting Premier Assistive Technology into their daily practice and into use for provincial assessments in Grade 3 and Grade 6? My research lies purely in the qualitative realm because “it relies on the views of participants; asks broad, general questions; collects data consisting of words and images from participants; describes and analyzes these words and images for themes; and conducts the inquiry in a subjective, biased manner” (Creswell, 2008, p. 46).

Because the phenomenon under study is my own practice, my study follows the structure of practitioner-based, self-reflective action research. This type of research allows me to research my self and my practice. It allows me to conduct an investigation

into my own behaviour and the reasons for my behaviour. It is inquiry conducted by self on self (McNiff, 2002, p. 11).

This type of research represents a new kind of scholarship which according to Schön “demonstrates a new epistemology, a new way of knowing, that meets the everyday needs of people working in real-life situations” (as cited in McNiff, 2000, p. 1). McNiff, discussing Schön, talks about

the need for new theories of knowledge which are rooted in reflection-in-action, and reflection on that reflection-in-action. Schön believes that what is needed is a new way of theorizing which integrates theory and practice, a form of theory which is embodied in real lives and shows the process of reflecting on reflection-in-action, and which may be shared with others who are also studying their own practice. These theories are rooted in the unarticulated tacit knowledge of practitioners as they try to make sense of their lives.

Our sense of what is the right thing to do is generated through a lifetime of learning from experience. Learning from experience can be reinforced through intellectual study; but the cognitive knowing is barren when separated from the life in which it is embedded. Embodied forms of knowing are rich embodied epistemologies. People come to know by trusting their deep tacit knowledge, and learning how to transform it into real experience which has use value in personal-social lives. (McNiff, 2000, p. 2)

I have felt for so long that my practice was something I did very intuitively. Fortunately I have been successful with this manner of working. But this new job really threw me for a loop and I really couldn't make sense of why I wasn't feeling successful.

The following doubts and questions kept whirling around in my head: “Maybe I’m just not suited for the job. Maybe I just don’t have what it takes to work effectively in this environment. Just what does it take? How can I influence people to consider a different way of practice? Why should they listen to me? Why do some people seem to be able to make a difference but I feel I am not making significant headway?”

I love getting together with the other system learning resource teachers to share experiences and resources. I do feel somewhat inadequate at times though when I hear their stories of the week. I feel like they are being more successful than I am at building relationships with classroom teachers and actually influencing their practice. How do I get past all the complaints and get the conversations going around trying something different for a student who is struggling with learning? I’m feeling really frustrated at this point. (McDougald, journal entry, November 5, 2006)

All these thoughts and questions speak to the fact that I needed to investigate my values and the nature of my influence so that I could improve my practice. An investigation into my own practice was necessary so that tacit, intuitive ways of knowing and working could be brought into light, examined, clarified, and solidified. I needed to create a new knowledge, a new awareness of “self.”

“The new scholarship,” says Schön, “implies action research, a form of practical theorizing in action which is appropriate to all professional contexts. If teaching is to be seen as a form of scholarship, then the practice must be seen as giving rise to new forms of knowledge” (as cited in McNiff, 2000, p. 3).

Ghaye and Ghaye (1998) call this “reflection-on-practice,” a term borrowed from Schön. They explain that reflection-on-practice allows educators to understand their influence and its boundaries:

Engaging in the process of reflection is about admitting that practice can always be improved in some way. Reflection on practice refuses to let experience become a liability. It can provide teachers with the courage and intellectual capacity to turn insight into improved action. (p. 3)

Ghaye and Ghaye warn that “critical reflection is not a process of self-victimization but about taking a questioning stance towards what teachers and schools do” (p. 3). They also warn that the purpose of reflection on practice is not to simply improve one’s practice in some private, solitary way but that reflective practitioners are people who are socially committed and who ultimately are engaged in “knowledge production that has the potential to enlighten and empower teachers” (p. 3). Ghaye and Ghaye go on to describe reflective practitioners as researchers: “Reflective practice is a research process in which the fruits of reflection are used to challenge and reconstruct individual and collective teacher action” (p. 5).

Another important aspect of reflective practice that Ghaye and Ghaye (1998) outline is the notion of reflective, public conversation. They state that “above all else a reflective conversation is one that involves a discussion of values. A focus on values is at the heart of the personal and collective improvement process” (p. 19). Chapter 1 of my study was exactly that—a focus on the values that I believe I possess and why I think that I possess those values and the possible influences in my life that have nurtured those values.

Ghaye and Ghaye (1998) outline that reflective conversations eventually become public:

Reflective conversations may initially take the form of private ‘conversations with self’ but then they should be articulated in public company. In doing this, teachers can try out the language they feel they need so that they can describe, explain and justify practice and, when appropriate, persuade, confront and encourage others to question their own practice. (p. 20)

This is why the participants in my study are so crucial to my study. My participants became my “dialogical others.” According to Pendlebury (1995) the role of the dialogical other has three facets to it. Firstly, the dialogical other helps the teacher to reflect on action and then develop an action plan. Secondly, the dialogical other plays a more critical role and challenges the planned course of action. Finally, the dialogical other assists in the development of an improved course of action, if it is required (as cited in Ghaye & Ghaye, p. 21).

As I have worked with the participants in my study they have helped me to analyze and deconstruct shared, lived, educational experiences that involve the use of Premier assistive technology. Through our collective and collaborative teaching experiences, we have reflected on the efficacy of the Premier program for students; we have critically looked at how the Premier program could best be used as a reading and writing tool; and we have changed our course of action depending on student responses and technical difficulties that arose. It is through these precious, reflective conversations with my participants that I have been able to bring to light the best parts of my practice

but also those “less than best” parts which require focus, nurturing, and improvement. In many ways the servant has become the served.

McNiff’s work in *Action Research in Organizations* (2000) also underlines the public intention of action research: “Action research generates practical theory. It is undertaken by people who want to improve their understanding of their practice in order to improve their dealings with others in social situations” (p. 4). This is precisely the purpose of my study. If I have a clear understanding of the nature of my influence then I can improve how I interact with colleagues as we work together to improve learning for children. As I look at my work with my colleagues, I ask them to validate claims that I have in fact improved my work. I subject my practice to the critical scrutiny of others for their validation that the practice has improved or that it has not.

The methodology which best suits my qualitative, self-reflective approach is the living educational theory methodology. At its core, a living educational theory methodology is used to produce explanations of a person’s educational influences in his or her own learning, in the learning of others, and in the social formations in which the educator is living and working (Whitehead, 2009b, p. 212). By developing my own personal living educational theory I pay homage to the notion that each educator “is capable of offering evidence-based explanations for how they live, as they attempt to exercise their educational influences in learning” (McNiff, 2008, p. 1).

In order to understand my own influence and to be in a position to possibly influence others I must interrogate my own values and assumptions and use them as standards of judgment to analyze my practice. In such an interrogation I can determine if my practice is a reflection of the values to which I claim to aspire. If I find that I am

living and working in contradiction to the values I profess to hold, then I have the professional obligation and professional need to alter and improve my practice so that my practice comes in line with my values.

The living educational theory methodology allows me to focus deeply on the experiences I have lived during my educational development. In studying these lived experiences I unearth fundamental values which I believe have been embodied in my practice (VanManen, 1990). As these values become more apparent and embedded in my practice then I can use them as an explanation of my influence in my own learning and in the learning of others and even possibly in the social formations in which I live and work (Whitehead, 2009b). These explanations then become my living educational theory. My living education theory is my epistemology that guides my practice and my way of practising the art of education.

In order for my lived experiences to be understood and in order for my values to be unearthed and confirmed, these experiences and values must be validated by others. It is through the words and images of my participants that my practice is evaluated and determined to be living up to the standards of judgment and values that I claim to live by (McNiff, 2002).

There are four tenets inherent in the living educational theory model. Firstly, the “I” is at the centre of the research and is asking the question, “How do I improve what I am doing?” The question is asked because the “I” knows that it may exist as a living contradiction to the values it claims to hold. Secondly, the living education theory model follows the course of action reflection cycles. Actions are evaluated in relation to espoused values. If the values are not being lived out fully in practice, then the

researcher modifies his/her actions to bring them into line with the values espoused. This cyclical, systematic process continues. The third tenet of living educational theory is the tenet of personal validation. Whitehead (2009a) describes it this way:

a decision to understand the world from my own point of view as an individual claiming originality and exercising judgment responsibly with universal intent...I exercise a sense of personal responsibility in validating for myself my claims for what I believe to be true. In doing this I take account of responses from a process of social validation (§ 34).

Social validation is the fourth tenet of living educational theory. As a researcher using the living educational theory model, "I submit my explanations of educational influence to a validation group of peers with a request that they help me to strengthen the comprehensibility, truthfulness, rightness and authenticity of the explanation" (Whitehead, 2009a, § 35).

Ultimately, action research and living educational theory is about change. But it is not about changing others. It is about changing the "self." I have the power to change only myself. I can however attempt to influence others. This speaks again to the social intent that McNiff (2002) describes:

The intention is that one person improves their work for their own benefit and the benefit of others. If you can improve what you are doing (at least improve your understanding of what you are doing), there is a good chance you will influence the situation you are working in. Your increased awareness and your readiness to be self critical will probably have an influence on the people you are working with. You are aiming to influence them for the better. There is nothing sinister in

the idea of influence, and everything to celebrate; most ideas that people have were influenced by someone else, somewhere else in time and space. This is the way that knowledge evolves, a process of learning from others and reworking existing knowledge in a new way. (p. 15)

I understand completely that because my study represents a self-study and that my methodology is a living educational theory, I cannot generalize my findings to other contexts or other people. I realize that the purpose of this study is to investigate my practice, have it critically evaluated by my participants and my validation group, and to improve my practice so that I can have a positive influence on my little corner of the world.

If I am able to study and possibly influence my little corner of the world, then I believe I have the obligation to share my personal educational theory with other educators. As other educators do the same, the body of educator–researcher knowledge grows and what it means to be an educator becomes understood from the inside out rather than from the outside in. This kind of research sharing “acknowledge(s) teachers as Knowers and Knowledge producers and identif(ies) practice and practical contexts as starting, not ending, points of theory and knowledge generation” (Cole & Knowles, 2000, p. 9). As educators take more command of their own professional development through the reflexive inquiry of their practice then the gap between the theory of teaching and learning and the practice of teaching and learning narrows (Cole & Knowles, 2000, p. 9).

Whitehead (2009b) sees it as the educator’s responsibility “to undertake self-studies that make public their educational influences in their own learning, in the learning of others and in the education of social formations” (p. 220). Whitehead stresses “the

importance of each individual's responsibility for making a contribution to the generation of a world of educational quality" (p. 220).

I see my study as one small addition to the generation of teacher-research theory. I believe my study holds some significance especially in the area of the educator- to-educator relationship in teaching and learning.

Methods

In attempting to define the method I used for my study I found that I was drawing from several different qualitative approaches. Which particular one or combination should I use to define my method? I was relieved to read that Dadds and Hart (2001) had a term for what I was doing: "methodological inventiveness." They realized that "for some practitioner researchers, creating their own unique way through their research may be as important as their self-chosen research focus" (p. 166). They also realized that "how practitioners chose to research, and their sense of control over this, could be equally important to their motivation, their sense of identity within the research and their research outcomes" (p. 166).

Because my study represents a living educational theory approach to self-study, it is understandably rich in a narrative research method. My methodological inventiveness comes into play here because the narratives that I study and analyze are made up of my personal journals and also reports that I have written over the past 4 years. The events that are chronicled within these texts that I have written revolve around my experiences as an educator and my experiences with assistive technology and working with students and fellow educators. Through this narrative approach I was able to explore and

articulate my values as an educator but also investigate personal and professional growth and understanding over time.

Teacher knowledge is embedded in the stories teachers tell and write about. The narratives of their experiences reflect both the personal life history of the educator and the social context in which they live and work:

We see the landscape as narratively constructed: as having a history with moral, emotional, and aesthetic dimensions. We see it as storied. To enter a professional knowledge landscape is to enter a place of story. The landscape is composed of two fundamentally different places, the in-classroom place and the out-of-classroom place. (Connelly & Clandinin, 1999, p. 2)

When I read Connelly and Clandinin's chapter on knowledge, content, and identity I realized that my writings throughout the Master's cohort represented a certain "landscape" for me and that the body of writings could be studied to bring to light my professional knowledge as an educator. Through my writing and analysis of my writing I could, perhaps, discover who I was as an educator. In their research, Connelly and Clandinin noticed that teachers' inquiries were often questions of identity: "Teachers were more inclined to ask questions along the lines of 'Who am I in this situation?' than 'What do I know in this situation?' Teachers seemed more concerned to ask questions of who they are than of what they know" (Connelly & Clandinin, 1999, p. 3). These words brought great comfort to me as I was struggling with who I was in the new situation I had taken on as an educator. Having a deeper understanding and appreciation for narrative inquiry gave me the confidence to add much more rich autobiographical narrative to the papers I was writing for my professors in the Master's cohort. I felt I had been given

permission to explore my own personal and professional “landscape” with the hope of finding a more solid sense of who I am as an educator.

But just how is narrative or “autobiographical” inquiry performed and what are the benefits? Cole and Knowles (2000) provided the answers to me with this description:

First... autobiographical inquiry and its representation provide a process by which teachers can gain insights into themselves as developing professionals. Through the reconstructed articulation of prior and current life experiences, teachers have opportunities to pull out narrative threads that hold together the interwoven fabric of their past, present, and future lives and their personal and professional selves. Second, and related to the first use, is the value of autobiographical articulations as a way of recording one’s professional development. Developing autobiographical accounts that begin with past experiences and continue into the present is a useful way for teachers to examine their practices and developing orientations, important in forging ongoing professional development. Third, autobiographical writing is a powerful vehicle for enhancing learning. Writing about personal philosophies, theories, principles, and skills related to teaching and education (is) helpful in discovering and examining the extent and substance of one’s continuing learning. (p. 15)

As I read, reread, and analyzed my journals, previous action research papers, and papers written for the Master’s cohort I hoped to find some common “threads” and highlight my professional growth over time and, in turn, come to a deeper understanding of my personal philosophies and values.

At the same time that I was conducting a study of self by self through narrative inquiry I was openly studying my practice by engaging and working with participants. I gathered data from a baseline questionnaire, dialogue which was captured in email communications or recorded in my personal journal. Finally, an interview process was used as a culmination and reflection task on the shared experience of the teaching and learning that occurred between researcher and participant.

My methodology therefore is a self-study from different perspectives. On the one hand I reflected back upon lived personal and professional experiences, through narrative, and attempted to unearth and articulate values that guide me in my work. On the other hand, I engaged participants to assist me in reflecting upon present practice as a way to assess my growth and learning as an educator.

The following section presents a detailed description of the methods used in this self-study.

Study of Self by Self Through Narrative and Report Writing and Analysis

In an attempt to unearth and bring to light the values that I believe guide the way I live and work educationally, I conducted a study of self by writing and studying papers and articles that I had written over the course of the Master's cohort. The most significant writing seemed to come from the following courses: The Reflective Practitioner; Effecting Change in Educational Organizations; Data-Based Decision Making; Advanced Writing Seminar; and Challenges of Educational Leadership. These papers and articles investigated my personal stance on education, my initiation into reflective practice, my response to change, and my challenges with educational identity. As I read these reports and narratives, I was looking for phrases, sentences, and

paragraphs which expressed values-laden language and ideas. These were highlighted and then coded for similar themes. These themes were used as the basis for the background of chapter 1.

The most challenging writing was the personal narrative I wrote describing my early influences that formed values and shaped identity. I had avoided looking way back into childhood for almost the full 2 years of the cohort. It was much easier for me to stick with the lived, professional experiences of work than it was to explore the personal, lived experiences of childhood. However, once I summoned the courage to do so, many of the values that I claim to use to guide my professional, educational work clearly stem from the experiences and influences of childhood.

In order to expose the educational climate for assistive technology and my perspective on it, I engaged in three different forms of writing and analysis. First, I wrote a number of scenario-type narratives which I used in chapters 1 and 2. These scenarios represented compilations of my experiences with students and teachers while I was a school-based learning resource teacher and also as a system-learning resource teacher. I chose this method as a way of highlighting the different perspectives of student, teacher, and “coach” toward assistive technology as a tool for teaching and learning. These scenarios don’t represent one single experience but are rather a compilation of events and experiences which are used to expose the educational climate of the use of assistive technology by the different constituents within my educational system.

My second form of writing, intended to expose the educational climate of assistive technology, was in the style of a research article written for the Advanced Writing Seminar course of the Master of Education cohort. In this formal report I defined

the particular assistive technologies that I have been investigating for several years and its researched effectiveness in assisting students with reading and writing challenges. I highlight the importance that the Ministry of Education places on assistive technology as a teaching and learning tool and the gap between researched effectiveness of assistive technology and actual classroom implementation. This article contained a substantial literature review of research based on assistive technology and the theory-practice, implementation gap. This article appears as part of chapter 2, the literature review.

My third form of writing was once again a study of self by self. This present study represents the third action research study I have done on how I can assist my fellow educators in the implementation of assistive technology. I felt that it was important to review my first two action research reports to explore assumptions, values, and possible change and growth in my own perspective as it pertained to the use of assistive technology but also as it pertained to how I worked and collaborated with my fellow educators. In this way I felt I was honouring the action research cycle which is a distinguishable characteristic of a living theory methodology. By reviewing my first two action research projects, I am showing that I am continually reviewing my practice, identifying aspects to improve upon, trying new strategies, taking stock of what happens, modifying the plan in light of the data, and monitoring and evaluating the action I take (McNiff, Lomax, & Whitehead, 2002, p. 47).

The description of the two action research papers are elaborated upon in the literature review in chapter 2. From these first two action research projects I have developed a support model which I believe to be a “best practice” model for assistive technology implementation. This support model will be outlined in chapter 4.

Work With Participants

The following section describes the methods I used as I worked with my educator participants in my study. I will discuss how participants were enlisted, the baseline questionnaire, collaborative work and communication with participants, and the videotaped interview which represented the culminating task with the participants.

Enlisting Participants

As part of my role as system learning resource teacher I receive referrals from schools asking for my assistance to train teachers and students in the use of Premier assistive technology. Before I receive a referral, the School Team (comprised of the principal, learning resource teacher, and classroom teacher) has met to discuss the learning challenges of the students in the teacher's class. If it is thought that perhaps assistive technology might benefit the student because of his/her reading and writing difficulties, and if the classroom teacher is willing to explore the assistive technology option, then the learning resource teacher contacts me and asks me to meet with the teacher and students for training. This contact constitutes a referral. It is in this manner that my collaborative, working relationship with my fellow educators begins. Five such educators agreed to be participants in this study.

Baseline Questionnaire

One day, I was discussing data collection and analysis with a critical friend from the Master of Education cohort, Jo-Ann Duns. She pointed out that in my previous two action research reports I had not engaged in collecting baseline data from my participants. She suggested that it would be beneficial to design a simple questionnaire that exposed the participants' level of familiarity with assistive technology as well as what they hoped

to learn from our work together. She suggested that this would be one way of assessing my impact on their practice. I designed a baseline questionnaire (see Appendix B) and once the participant consent form had been signed I asked the participants to fill out the baseline questionnaire. These questionnaires allowed me to design lessons and guide discussions based on where the educator was at in her learning; just as we do for students, we start where they are.

Collaborative Work

The next stage of my study method involved the actual hands-on teaching and modeling practice of the use of Premier assistive technology in the classrooms and computer labs. This involved months of weekly or biweekly interactions with students and teachers as we explored the benefits and weaknesses of the Premier program.

During this time I kept personal journals of discussions with teachers and students— observations and impressions of growth in attitude and skills on the part of students and teachers. Teacher participants and I also engaged in email communications to set up working schedules and give feedback and impressions.

Students have also provided verbal and written feedback on the usefulness of the Premier technology for their reading and writing tasks and any technical glitches or annoyances that they wished to report.

In May and June, 2009, interviews were conducted using the protocol shown in Appendix C. I videotaped these interviews between myself and my participants. The use of videotape is a new procedure in my action research methods. Previously, I have used only the spoken or written word as data in my research.

The importance of images as data was brought to light for me during the Data-Based Decision Making course in June 2008. Dr. Jackie Delong had brought a video camera to the class. She asked us to sit with a partner and listen to each other share some writing we had done and then to ask questions and give feedback to each other. As we did this, Dr. Delong circulated the room with the video camera. Upon completion of the partner work, Dr. Delong replayed the video. As I watched the segment of me and my partner I was surprised how animated my face was as I listened to my partner. Kathleen Wright, a student in the cohort, commented out loud that I was the role model for attentive listening (McDougald, class notes, May 10, 2008). I realized then that there is so much communication that is captured in images that could never be captured in words during conversations.

During my advisory group meetings with Dr. Delong, she has continued to encourage the exploration and use of different forms of media as data in research. She has shown several of her video recordings that she has used as data in her own research and she has shared papers written by Jack Whitehead on the topic of visual data. Whitehead states that “the usual forms of representation in (such) journals are masking or omitting the life-affirming energy that distinguish what should count as educational knowledge, educational theory and educational research” (Whitehead, 2008, p. 1). Whitehead has been using multimedia representations in his work because he believes they

communicate the meanings of the expression of ontological values in educational relationships and in explanations of educational influence....I am suggesting that to understand the vital influence of energy and values in explanations of

educational influences in learning, ostensive expressions are required that include visual records of the living relationships of practice. (Whitehead, 2008, p. 216)

As I read this I realized that the nature of my influence as an educator could be exposed, not only through dialogue with my participants, but through the images of our interaction together. I began to feel more confident that videotaping the interviews, rather than just using audio recordings, could bring out much more richly the educational relationships that had been built during our collaborative work together, and the energy captured on video (or lack thereof) could be data that could be used to judge the level and nature of my influence with that particular participant.

As a final method of validation, I decided to enlist a validation group from outside the study to provide another professional perspective to the work that had been done with the participants. This group individually viewed the interview videotapes and provided feedback to my claims of educational influence.

As part of my data analysis, I used my personal journals, participant email communications, interview transcriptions and visuals, and validator comments. All data were read and reviewed several times. Common themes emerged and were colour-coded according to theme. The data collection and analysis procedure will be explained in the following chapter.

CHAPTER FOUR: DATA ANALYSIS

In this chapter I will review the participant contact process, explain the approach to the Assistive Technology (AT) support model, describe the participants, and present and analyze the data revealed during the study. I will discuss some limitations of the study and my efforts to ensure there were no ethical issues during the study.

Initial Participant Contact

The participants in my study are classroom teachers from 4 of the 16 schools that I service as a system learning resource teacher for Special Education. My initial contact with these teachers came from a referral from the School Team, comprised of the principal, learning resource teacher, and classroom teacher. Previous to my involvement, the School Team had met to discuss the learning challenges of students in the teacher's class and decided that perhaps assistive technology might benefit the students because of their reading and writing difficulties. A referral was made to me and then I contacted the classroom teacher for an initial meeting and discussion of the students' needs, the teacher's needs, and the possible approaches to our working together. Five teachers agreed to be participants in my study.

Assistive Technology Implementation Model

From my previous two action research projects, I have learned that independent implementation of assistive technology into a teacher's practice required more than just teaching technical skills to students and teachers. Feedback from previous participants indicated that although they could see the benefits of the assistive technology for

improving reading and writing skills, what they really needed was support and time to become familiar and self-confident with the technology but also to see relevant connections to the curriculum they were teaching (McDougald, 2008).

Premier assistive technology was introduced in our School District in January of 2008. During regular meetings with my fellow system learning resource teachers, we helped each other to build our own expertise in using the Premier program and all of its many tools. We would share ways that we had been teaching the program to teachers and students in our schools. It was during one of these meetings that we were talking about how to model the program and then allow the students and teachers to practice, building on skills with each subsequent lesson. Jo-Ann, a fellow system learning resource teacher, discussed how this mimicked our school district's literacy profile which was based on the work by Regie Routman. Routman (2003) called her model the optimal learning model, one that is based heavily on Don Holdaway's

principles of developmental and social learning [the optimal learning model claims that] with expert assistance and encouragement, learners gradually move from dependence to independence. The degree and intensity of assistance the learner requires to be successful determines how we structure our teaching.... Inherent in the model is a relaxed, collaborative, accepting environment that encourages and supports the learner in trying out what is being demonstrated, taking risks, monitoring himself or herself, and setting goals while moving toward independence. (p. 44)

It seemed plausible to me that using this method of modeling and then gradually building independence just might work as a way to teach the effectiveness of the Premier program.

As I met with each of my participants, we decided how I would teach the technical skills—whole group, small group, or one-on-one with student and teacher. We discussed what curriculum expectations we were going to focus on as our content and we decided on the frequency and number of visits I would make to the class. The approach that I took with each participant was individually structured to address need, previous knowledge, curriculum relevance and learning styles, and pace of learning. After each session, my participants and I would discuss what went well and what needed more work (based both on student and teacher learning). In collaboration, we would decide the focus for the next lesson.

Participant Profiles: The Fabulous Five

The following section describes the participants in my study, baseline data gathered at the beginning of the study (see Appendix B), the number of students involved, the curriculum connections used during the learning of the Premier technology, and the various approaches that I took in teaching the technology. I include these personal participant profiles because I believe they highlight the individual nature of the model of AT implementation that I believe is necessary to achieve confidence and independence on the part of the educator.

Debbie Boswell is a grade 3 teacher with 20 students in her class. At the beginning of the study, Debbie described herself as someone who was not comfortable using computers in the classroom. She had attended workshops on various assistive technology programs, including Premier, and sometimes used AT programs in the classroom to support literacy. When asked what she would like to learn about the Premier program, Debbie stated that she would like to learn how to be more proficient

and that she would like to learn how to use it more effectively with her class. When asked how I could help her in her learning, Debbie replied that working with students, allowing for observations, and allowing for personal practice would best support her.

Upon further discussion, Debbie felt that she wanted her entire class to learn the program, using her computer lab time, approximately once per week. We agreed that learning the writing tools with the word predictor would be a good place to start and that we would focus on open-ended type writing tasks similar to ones in previous EQAO tests. The next few lessons focused on writing persuasive texts about the type of classroom pet the students would like and what they would do if they won a million dollars.

After the writing sessions, we presented to the students a series of fiction and nonfiction texts to read using the reading tool in Premier. Using whole group instruction and then one-to-one support, I taught the students to open files, read and highlight important information in the text, answer multiple-choice and short-answer questions based on the text, and then to save their work. Debbie observed my lessons, practiced and completed the reading and writing assignments along with her students, and provided one-to-one support to students in the lab alongside me. Debbie and I worked together with her whole class for eight sessions in the computer lab.

During that time, Debbie and I would observe and assist several students for whom we were assessing whether assistive technology would be an appropriate classroom tool for reading and writing. As well we were attempting to make them independent in their skills so that they could access Premier to complete their grade-3 EQAO assessment of reading and writing. As the end of May approached, Debbie and I

decided that I would provide two individual sessions to each of the four students who would be using Premier to complete EQAO.

Tara Erb, my second participant, is a grade 3 teacher with 20 students in her class. At the beginning of the study Tara described herself as someone who was comfortable using computers in the classroom. She had attended a few workshops on assistive technology programs and used such programs in her classroom to support literacy. When asked what she would like to learn about Premier, Tara stated that she would like to learn how to make use of it with her students who struggle with reading and writing. When asked how I could support her in her learning, Tara replied that she would like to get ideas and information on how to best use the program. She felt that I had the benefit of trying it with lots of kids so that I would know what worked best.

Tara chose a similar implementation approach as Debbie. I taught whole class lessons in the computer lab, starting with learning the writing tools and word predictor first, and practicing writing open-ended writing tasks. Tara was so impressed with her students' persuasive writing that she bought her class a fish for their class pet. Next we introduced fiction and nonfiction texts and supported the students in the lab as they learned to properly open a text, read it, answer questions, and save their work. During five computer lab lessons, Tara and I observed and made assessments about who we felt was benefiting most from the technology and whether they would be good candidates for use of technology during the EQAO assessment. Following the computer lab sessions, I provided two individual sessions to each of four students to ensure that they were completely independent in the use of the technology before the EQAO test.

My third participant, Miss G., is a grade 3 teacher with 18 students in her class. At the beginning of the study, Miss G. described herself as someone who was comfortable using computers in the classroom. She had attended workshops about assistive technology programs and had used assistive technology to support literacy in her classroom. When asked how I could support her with her learning, Miss G. responded that she would like assistance with helping her students to become more proficient with the program and that she wanted to use it for EQAO.

As Miss G. was already integrating computers into her literacy centres, she asked that I support four of her students in learning to use Premier independently. I would arrive during the literacy block (daily time assigned to literacy instruction and learning) and work with two students at a time using the classroom computers. Initially the students were taught the “read back” function so that they could hear stories that they were copy-typing from leveled books (books which are at the students’ reading level). They were taught to save their work so they could reread the books the following day. Further sessions included using the “word predictor” and “writing tools” to complete writing tasks for Science, Social Studies, and Language. Other sessions included teaching the students to open, read fiction and nonfiction texts, highlight and respond to multiple-choice and short-answer questions, and then to save their work.

Throughout these sessions, Miss G. and I would discuss the students’ progress and need for remediation and plan for what we might work on next. As time progressed we introduced EQAO sample texts to ensure that the students were capable of handling the technology independently and effectively.

Laurie Irwin was my fourth participant. She teaches grade 4 and has 22 students in her class. In her baseline questionnaire, Laurie described herself as being sometimes comfortable with using computers in the classroom. She had not attended any workshops on assistive technology programs but had used such programs in the classroom and in her literacy program. When asked what she would like to learn about Premier, Laurie stated that she would like to learn how to scan documents and to read passages and use them in the grade 4 program. When asked how I could support her in her learning, Laurie replied that she needed me to support her understanding of the Premier program and its many uses in her grade 4 program. She indicated that working with small groups of her weaker students would be especially helpful.

Upon discussion, it was decided that we would introduce the Premier program to the entire class. Our first two sessions were not particularly successful as we had a number of technical errors occurring in the school computer lab. These were errors that I had not previously experienced in other schools and it took several emails to our school district's Information Technology (IT) support staff to find a solution. Eventually, the IT support staff was able to provide us with a bypass technique that allowed the students to use the Premier program effectively. Laurie and her students were very patient and persevered through these trying times. When the technical problems were solved I began by teaching these students how to access texts from the Internet and Student Link—a site linked to Internet sites that support the Ontario Curriculum from kindergarten to grade 8. I taught them to copy and paste the texts into Premier. The students then listened to the texts being read, learned to highlight important facts, extract these facts and use them to write reports, and to save their work. Over a 3-month period the students learned basic

research skills using Premier while exploring the following curriculum topics: Physical Regions of Canada, Canadian Inventions and Inventors, and Medieval Ages. During our whole group lessons, Laurie would practise the skills taught by assisting her students in remembering the steps to access texts and to copy and paste them. She learned to solve basic computer technical problems with her students as they arose during our sessions.

On two occasions I worked with a small group of Laurie's students, reinforcing the use of the "writing tools" and the "word predictor" and how to access texts from the Internet and Student Link.

My fifth participant was a grade 4 teacher with 20 students in her class. Lee described herself as someone who was sometimes comfortable using computers in the classroom. She had attended workshops on assistive technology programs and had used computer programs to support literacy in her classroom. When asked what she would like to learn about Premier, Lee stated that she would like to learn to scan and other technical applications. She wanted to look at the range of possibilities for academic tasks, starting out with reading and then branching out into using Premier for writing. When asked how I could support her learning, Lee replied that she would need me to act as her coach as we go through the various technical applications of scanning, file folder making, using the writing program, highlighting, and extracting text.

When discussing the curriculum connections she wanted to make, Lee mentioned that she was beginning a novel study of the book *Stone Fox* by John Reynolds Gardiner. She asked if it would be possible to scan the book so that 3 of her students could use Premier to read the text to them. I scanned the book and loaded it into the classroom computer. I spent several sessions with 3 of Lee's students, showing them how to open

the text and how to use the reading functions in Premier to have the text read to them. Similar to Miss G., I supported Lee's students during the literacy block. On another occasion, I taught a small group of Lee's students the "writing tools" and "word predictor" using computers in the school lab. They used Premier to complete a descriptive piece they had been writing. Lee and I spent several sessions, one-on-one, during her prep time and after school, so that she could learn and practise how to scan documents, access texts from Student Link, and save the texts so the students would have access to them from the classroom computer.

Data Collection: The Process

Throughout my work with these 5 participants I kept journals of our experiences. I recorded teacher and student comments. I kept a file of email communications between myself and my participants. My culminating task was to interview each participant using a video recorder. Interview questions were created before the study began as a requirement for Brock University Research Ethics Board approval (see Appendix C). Each interview was transcribed and then all journals, emails, and transcriptions and videos were read and viewed as I searched for evidence of the nature of my influence. After several readings, common themes began to emerge. In order to see if these themes from the data aligned with my espoused values outlined in chapter 1, I constructed a matrix with the appearing themes on the top and my values listed down the left hand side. I then entered the phrases from the journals, emails, and interviews that seemed to speak to these themes and values. The matrix shows evidence of values in practice in most areas (see Appendix D). I then corresponded by email with my participants revealing to them the themes I felt had surfaced from the data and their personal data from journals,

emails, and the interview that I felt corresponded to those themes. Each participant read and approved the data as being an accurate representation of what occurred and what they had expressed.

Validation Group

Although I was feeling quite pleased with the quantity of data I had gathered, I began to doubt whether I had enough variety of voices. The student voice was evident in some of my data but primarily it was the participant voice or my own. I began reading through my action research texts and I read again about validation groups. I had overlooked the need for a social validation group as part of the Living Educational Theory methodology. “[One must] submit (her) explanations of educational influence to a validation group of peers with a request that they help...to strengthen the comprehensibility, truthfulness, rightness and authenticity of the explanation” (Whitehead, 2009a, ¶ 35). The idea of asking other people to examine my work intrigued me and frightened all at the same time. Would they see what I was seeing? Would they think it was as important, as valid, and as authentic as I did? I asked 4 of my colleagues if they would be validators for my work. These colleagues were fellow system Learning Resource Teacher Janet McCutchen, Psycho-educational Consultants Dale McManis and Karin Mertins (two people I had worked closely with on assistive technology projects in the past), and one Literacy Coach, Margot Kneale. I felt these individuals could provide insight as to whether the claims I was making were significant and valid based on their unique and varied professional perspectives. I produced five DVDs (see McDougald, 2009) of the participant interviews and asked my validators to watch and record any

comments or evidence they found that would substantiate my claims to know the nature of my influence as an educator.

As a final validating perspective, I asked Tara McFarling, a fellow Master's cohort student, to read my work and to check that all claims were substantiated and supported. Tara asked some pertinent questions that led to my work being more concise. She confirmed for me that I had indeed included a variety of voices in my study: "I hope you're still not worried about having enough voices to make your argument." I took that as a sign that I had it covered!

Data Analysis: Themes and Evidence Revealed

As I read through the data I had collected from my work with participants, six predominate themes appeared: relationships (both between me and the participant and me and the students), modeling skills and use of technology and allowing time for practise, technical skills and barriers, relevant curriculum and classroom connections, observation and reaction to student change and growth, and change in participant attitude toward herself, her students, and technology.

Next, I will provide specific data from participants and from validator comments that I believe reveal these themes and that I believe are evidence of my values being lived out in my practice working with educators. Much of the data will be in text form; however, some will be presented in audio–video form. As I explained in my Methodology chapter, I am using audiovisual data in my study because it represents a source of "explanation of educational influences in learning" (Whitehead, 2009b, p. 216) that more traditional text forms cannot. I believe that these video clips represent audio

and “visual records of the living relationships of practice” (Whitehead, 2009b, p. 216) that formed between me and my participants.

[Please insert the DVD into your computer at this time. If you are a Microsoft PC user, this DVD will be best viewed in Windows Media Player. If you are a MAC PC user, the media player will engage automatically when the DVD is inserted. As you read through the data analysis section you will be prompted to click on certain clips to view as data.]

Relationships

Most participants talked about how important it was that I had made them feel comfortable, that we had built a professional, collegial relationship, and that I possessed a certain expertise level that instilled trust and that I had developed a positive rapport with their students.

Presenting with a positive attitude and creating joyful working

environments. The following excerpts from journals, emails, and interviews show evidence that my values were guiding me in practicing an educational life that created positive attitudes and joyful working environments:

Your belief and your passion were most helpful. You could feel it. It was infectious. For both me and the kids. You saw how happy they were every time you came into the room. You made us want to try the program. (Lee, personal communication, June 3, 2009)

Lee’s comments from the interview capture the essence of my values of a positive attitude, creating a joyful work environment and collaboration and togetherness. I do get excited about working together with teachers and students; with planning how we are

going to work with technology but especially encouraging students and teachers in their new learning. One of the benefits of building these collaborative relationships is the professional conversations that result from two educators working together: planning, teaching together, observing students, and assessing progress. The following is an excerpt from a journal I wrote following a session with Lee and her class:

There was a true sense of collegiality, working together for the betterment of the kids. There was a sharing, celebration and professional reflection—a real joy of teaching and learning—both for Lee and me. I was able to share with her what the students had said about the story. She was so pleased with their participation. (McDougald, journal entry, January 7, 2009)

Taking the time to build positive relationships allows the educator to become comfortable with the technology and it allows for a professional relationship to evolve where a culture of inquiry (Earl & Katz, 2006, p. 20) can flourish. The following audio and visual data demonstrate a trust that was built over time as Debbie and I worked together. The mutual eye contact, shared smiles, hand gestures, and use of my name, I believe, are evidence that my values of collaboration and duty to others guided my interactions with Debbie, allowing her to feel safe in her new learning and eventually building a culture of inquiry and professional dialogue between us. Click on Clip N^o 1 to view the data.

I think professional dialogue is something we don't have a lot of time for. It has been great for me to be able to say, "Am I right, Theresa? Theresa, have I got this right? Am I doing this right?" And also what has made me feel good is that I

have not been made, because, actually, I have been a student in this too, to feel insecure about myself. (Personal communication, May 27, 2009)

One of the benefits of my role as a system learning resource teacher was the many students I have been blessed to work with over the past 3 years. When I first started the role in 2006, not knowing the students and them not knowing me was one of the hardest things to get used to. I was used to being an important part of the lives of students with special needs at my former school and it meant a great deal to me when they greeted me in the hall each morning with a “Hello, Mrs. McDougald!” I felt that I was an important person in their school life. Working with my participants’ students has once again allowed me to become an important person in the life of children and those relationships are what drive my passion and keep me fueled. The following email message and interview comments from Miss G. confirmed that I had built important relationships with students but also made me realize how those student relationships were a tremendous influence on the teacher as well. Miss G.’s intense eye contact, head nodding and excited tone of voice are evident of how important these student relationships were to her. Click on Clip N° 2:

It’s always nice to see you....the kids love to share and tell with you too (personal communication, May 20)...I also found that you were able to build a relationship with the students while you were here. Even with the ones that you weren’t working with, they could come over and want to show you “I can type too and I can work this.” I found that really nice. (Personal communication, June 23, 2009)

I am beginning to realize that one significant way to a teacher’s heart is through her students.

A sense of duty and service to others. Another important aspect that developed the educator to educator relationship was the idea of expertise. Participants seem to respect that I possessed a level of expertise with the technology that they did not and that they trusted me to lead them and their students in an area of new learning. I believe that my value of duty and service to others is what built that trust. My participants were entrusting their students to me and I wasn't going to let them down. I came prepared to every session with the technical knowledge and problem solving solutions to guide their learning. In Laurie's interview, she expressed how helpful it was to have someone to bring new information to her practice. In this video clip, you see Laurie's smiles and eye contact display the appreciation of which she speaks (click on Clip N° 3): "I really valued your support from the beginning...just learning about what's out there and what's available, and you certainly brought that to light for me and I appreciate that, I do... and your knowledge (personal communication, May 28, 2009). Tara described how the Premier program was introduced in our school district while she was on maternity leave. Her visual data displays a sense of relief and respect for someone with the expertise who was able to get her up to speed (click on Clip N° 4):

[Your support was] incredibly helpful because like I said I had never heard of [Premier] before and never had the opportunity to explore it; being busy we don't have the time to explore so somebody who knows how to do it and can come in and walk us through step by step. Amazingly helpful. (Personal communication, June 2, 2009)

Validators' perspectives. My validation group provided further evidence that I had influenced other educators by building professional relationships. The following

comments from my validation group indicate that they noticed evidence in the videotaped interviews of strongly built relationships: “there was an obvious comfort level... encouraging, positive comments” (Janet McCutchen); “all the interviews reflected a collaborative relationship” (Karin Mertins); “the teachers show a level of trust that is amazing when we see at what level they are at as learners” (Dale McManis); “When viewing the videos the body language and the in-depth comments illustrate the great amount of respect Theresa evokes from her participants (Margot Kneale).

Modeling Skills and Time for Guided and Independent Practice

A second theme which revealed itself during the coding process spoke to the method I used to teach assistive technology skills to students and teachers. Most participants commented on how I modeled the skills and then allowed time for practice and integration of those skills. It was exciting for me to see this notion reveal itself because this action research was based on the development of a more specific approach to working with teachers and students as we implemented assistive technology. The model I developed was based on comments I had received from colleagues during my first and second action research projects and substantial support that I received from fellow system learning resource teachers. I believed that modeling skills and new learning in small, progressive chunks and allowing as much time as was needed for guided practice would lead to eventual independence on the part of the students and the teachers. I feel the data from my work with my participants and their students support Routman’s (2003) optimal learning model that I spoke of earlier in the explanation of the AT implementation model. I believe the data show that modeling skills and then allowing for guided practice and

support led to a level of independence in the learners of my study, whether it be students or teachers.

Modeling. Each session that I provided to students and their teachers was modeling a specific technical skill which was necessary to learn the next technical skill. For example, I would teach the students to open up the Premier program and to select the Talking Word Processor tool. I would then teach them to customize the reading voice, the reading rate, and to turn on the “read back” and “word predictor” functions. The next session I would teach how to save work in a folder that the teacher could access electronically so that the teacher could look at all the student work from the computer. Each session proceeded in this manner, reviewing previously taught skills and then scaffolding a new skill on to skills already learned. This optimal learning approach (Routman, 2003) was an important and influential part of my collaborative work with participants. I feel that that Routman’s optimal learning model allows me to honour my value of collaboration and togetherness but also allows for independence to develop in others. Debbie highlighted how important this modeling approach was to her:

Debbie shared with me that she has had training with computers but still is feeling very reluctant and unsure of her own skills. She spoke of last winter’s Premier training. She said that kind of training doesn’t work for her but “this” kind does (us working together in the lab); lots of support and at a pace that is appropriate to her needs as well as her students’. (McDougald, journal entry, March, 5, 2009)

Lee also felt that the modeling approach gave her the support she needed. “You modeled it, showed us how it works. You were right there and you were working your way through it with us” (personal communication, June 3, 2009). Tara mentioned that

the scaffolding of skills worked very well for her and her students: “I think what we did worked out really, really well. Because we broke it down step by step. We’ll start with this and then we’ll go to something a little harder. I think it worked out nicely” (personal communication, June 2, 2009). I feel these statements indicate that many educators have, in the past, felt a sense of abandonment when it came to technology training and that the scaffolding of skills and the intensive support I provided gave them the time and space to become familiar and confident with their skills. I believe that this modeling approach is vital to building comfort and capacity in the learner—be it a student or a teacher. In the next video clip, Debbie describes how the modeling approach worked for her. I think her body language and facial expressions convey, even more than her words, a sense of feeling supported—a sense that she had been cared for through the process. Click on Clip N° 5:

I think being able to provide a regular time when you can come in and say let’s make some notes. What are the problems? How do we get through this? That’s huge in my opinion, just huge—as far as helping me and my comfort level and that consistency to the students. (Personal communication, May 27, 2009)

Guided practice. The comfort level of my participants was a highly variable factor. Some were very comfortable with technology right from the start and some were less so. However, it only took observation of one or two modeled lessons before all the participants were practising alongside their students and up and moving around helping me to guide the students through technical steps. This was an exciting part of the process for me and I entered many journal statements about how the teachers were starting to venture out and use the program themselves in the lab. “Laurie was

facilitating students, providing reminders of how to cut and paste from the Student Link into the Talking Word Processor” (McDougald, journal entry, February 3, 2009); “Mrs. Erb was showing the students the steps and taking an active role in using the Talking Word Processor. They were discovering how to highlight” (McDougald, journal entry, February 9, 2009); “Debbie sat down at the computers after my lesson and practised opening a text from the SShare drive [student shared memory space on networked computers in our schools], just like the students were doing. She is modeling her new learning to her students” (McDougald, journal entry, February 11, 2009); “Lee followed my written instructions and proved to herself that she could easily log on to Premier and find the saved chapters of *Stone Fox*.... She was delighted with how easy it was. Teaching the teacher to fish!!!” (McDougald, journal entry, January 7, 2009). It was exciting for me to see this growing confidence in the teachers. This is what had been missing from my previous action research projects—this simultaneous growing together of student and teacher. It was a sight to behold and it increased my energy and passion as a support teacher. The increased confidence and skill level of the participants soon led to more independent ventures in the use of Premier as a classroom tool. Now things were really getting exciting!

Independent practice. Lee’s email aptly describes how confidence leads to independence:

As for me, I am so pleased that I have taken the leap to try to incorporate the technology available to us to make the texts so much more accessible to kids like A., E., and A. I have made changes to my practice to assist my kids to become better learners. Your willingness to be a coach for someone like me with little

technological skills has given me the confidence to follow through to make this a part of our classroom program. I look forward to what we can try next. (Lee, personal communication, January 10, 2009)

As our sessions continued, participants would share with me how they had ventured out and incorporated Premier in new and innovative ways in the lab and classroom. Debbie shared that she was going to have B. use it each morning in the classroom to complete the morning message writing task, with support from the educational assistant in her room (McDougald, journal entry, February 2009). During a lab lesson, Mrs. Erb's class reported that they had used Premier during their lab time the previous day as well. Mrs. Erb wanted to see who was independent in getting it up and running. She expressed disappointment, but not surprise, that her most needy—N. and D.—were not yet independent. I suggested that they probably need to be using Premier everyday to remember the steps (McDougald, journal entry, February 2009). During her interview, Mrs. Erb reported that she had “her three lowest ones on it [Premier] as often as I can possibly get them on it, using it for a combination of reading and writing” (Personal communication, June 2, 2009).

Independence at the student level was another important, influential factor for teachers. Seeing students using the technology independently gave the teachers a sense of confidence and accomplishment. The support that I provided to get the students to an independent level was something that Miss G. appreciated: “That’s why I appreciate you coming in so while I am doing whole class instruction you are back at the computer showing them the ropes and helping them along that way” (personal communication, June 5, 2009). Laurie and I had commented on several occasions at the growing

independence of her students to read, comprehend, and highlight important passages in texts using the Premier tools we had taught them:

I was very impressed with the technical skill level of the students. They've come along way since the beginning. Laurie commented on how there were few technical problems we needed to solve. Most students were copying and pasting text into the Talking Word Processor, then reading and highlighting important information. Laurie and I both felt that proof of their independence was how quiet the lab was. (McDougald, journal entry, May 19, 2009)

Validators' perspectives. I was very curious to see what my validation group gleaned from the interview DVD about the modeling approach I had taken in this action research study. Their comments seem to support that Routman's (2003) optimal learning model approach honours the adult learner and creates a supportive environment which leads to growth and independence in the teacher's learning and in the learning of her students. Karin Mertins noted that the interviews reflected evidence of "where the teacher is at" in her learning and that the discussion showed "lots of individual differences in what is valued and needed." Janet McCutchen stated that the interviews showed "wonderful evidence of the power of coaching adult learners and the impact on their learning and student learning, as well as learning to use assistive technology in an 'authentic' way." Margot Kneale, who has been a literacy coach in our school district for over 6 years and who has worked extensively with educators to influence their literacy practice expressed her perspective this way:

It was obvious Theresa had committed large amounts of time to modeling and mentoring for her adult and student learners. Theresa had adeptly scaffolded her

technology instruction into manageable chunks so both the teachers and students involved would experience success. She fully implemented the gradual release model and the positive comments from participants are a testament to her insightful accommodations for her learners.

Dale McManis has spent considerable time and energy working and reflecting on the use (or lack of use) of assistive technology in classrooms. Her comments were particularly encouraging to me:

The consistency is another huge issue. It takes time for technology to be accepted and utilized and the fact that you could see it through as the participants went through the process helped them maintain their commitment in a way that one day of training could never do.

It was Dale's use of the word commitment that struck me. I think that Routman's optimal learning model—which supports a learner by modeling and then allowing for guided practice which leads to eventual independence—builds a culture of learning where the learner is committed to her own growth because she is being supported in a positive and safe way by someone who understands her learning needs and the pace that the learning should take place.

Barriers to Technology

A third theme which revealed itself in the data was the notion of barriers to technology. No discussion of implementation of technology would be complete without the topic of barriers and this study is no exception. Barriers occurred in each of the collaborative settings that make up this study. These barriers impacted the level of success that both students and participants were able to acquire.

The most significant technical barriers occurred with Laurie's class. The first time that I met Laurie's students, I had planned a whole class lesson where I was modeling the use of the Talking Word Processor tool in Premier. I had demonstrated the basic steps for opening up the program and showed the students how to customize their voice and reading rate options. I had given them a simple writing task to complete at their own computers so that they could practise these basic, initial skills. What happened next was the worst case of technical glitches I had experienced in my 5 years in working with assistive technology: "Nineteen out of 20 students got a RUN TIME ERROR 3044 message while using TWP [Talking Word Processor]" I wrote in my personal journal following the lesson. Thinking quickly on my feet, I called all the students back to the one demonstration computer. "We huddled around one computer for the rest of the lesson and I demonstrated how to use Student Link and find interesting texts to read using the read aloud tool. Laurie took it all in stride and even agreed to book another lesson" (McDougald, journal entry, October 14, 2008).

We fared only marginally better with our next computer lab session. I went to the lesson confident that the contacts the school learning resource teacher and I had made to the IT Support staff had solved the problem:

We got the run time error again—so we were all pretty frustrated since the IT guy had said the problem was fixed. The only logins that worked were the generic ones so the kids used those. Then only five of those worked so the kids just used the same five logins over and over! (McDougald, journal entry, November 3, 2008)

I apologized to Laurie and told her once again I would try to find the solution. I knew that the Premier program was not the problem because it worked fine with the few generic logins. Something was going wonky with the network system at that particular school because I was not experiencing this problem at the other schools where I was currently working. Laurie was so patient. The students demonstrated wonderful resilience and problem solving solutions—sharing logins, working in pairs, and generally showing a willingness to persist. I think Laurie’s patience and perseverance created an environment of resilience and a “stick-with-it” attitude in the students. I surely was grateful for Laurie’s willingness to keep going with our working relationship, despite all the technical difficulties. After several more emails to IT Support staff, a bypass solution was suggested. It involved one more step when opening up the Talking Word Processor. I taught the students this one step and by mid-December we were “glitch free” and on our way to learning some sophisticated research skills using the Premier program.

I wonder how many educators who are working alone to implement technology give up because of these kinds of technical difficulties? I really think that when it comes to implementing technology into student learning, one should never swim alone and the number for IT Support should be as accessible as 9-1-1.

Another barrier mentioned by several of the participants was the lack of computers available either in the classroom or the lab: “It would be nice if we had more computers. That’s also a big limitation” (Lee, personal communication, June 3, 2009). “Probably the biggest barrier is the lack of computer time. I have one computer in my classroom” (Debbie, personal communication, May 27, 2009). Although Miss G. had two computers in her classroom, her school did not have a full lab of computers like my

other participants did. She would have loved the opportunity to teach all her students the Premier program but she thought that so many of them could benefit from it. One day we laughed when she asked if I could round up another two computers for her classroom because she would put them to use. “I would if I could because I know you’d use them!” (McDougald, journal entry, January 26, 2009).

A surprising revelation and a barrier discovered during my work with participants and their students, was the lack of technical skills on the part of the students. We, the teachers, had assumed that students possessed a level of computer sophistication that many of them actually did not. Although many students use computers regularly at home, it became obvious that using a computer as a learning tool required different skills than using a computer for entertainment and basic Internet surfing.

I thought these children were much smarter than I was in computers but what I discovered was they don’t know their way around a computer. They can play all the computer games there are but they need some basic typing skills. They need some basic lessons in maneuvering around computers. Simple things like using the enter key to drop down a line, using the arrow keys to go back [into the text], how to use the Shift and Caps Lock buttons. (Debbie, personal communication, May 27, 2009)

Miss G. expressed similar surprise when she realized what a difficulty it was for students to understand how to save files properly. This visual data displays how initially frustrating certain aspects of technical learning can be but more importantly, Miss G.’s facial expressions and tone of voice also convey the attitude of “stick-with-it-ness” that is required for hard but significant learning to take place. Click on Clip N^o 6:

Saving! The saving! Saving files and trying to keep them all straight because some of my students, their concept formation of how do I save something and where do I save it to [is not yet developed], so I will find things are not always necessarily saved in a spot that is accessible (or logical). So that was an issue but you work through that and that comes with time. [Saving] is a huge step and I feel that the sooner you get the kids working with that the sooner they are going to pick up on that. (Miss G., personal communication, June 5, 2009)

Accessibility and preplanning were two other barriers mentioned by participants that were at times an inhibitor to the implementation of the technology into teaching practice. One minor barrier is the need for headsets for all students using the Premier program. When all 20 students are using it for research or writing purposes in the computer lab, the noise can be unbearable and in fact can impede the use of the read aloud function for reading comprehension. “Mrs. Erb and I discussed the importance of the headsets for focus, concentration, understanding and quiet” (McDougald, journal entry, February 9, 2009). Although headsets can be purchased at a relatively low cost, they are not particularly durable and need to be replaced from time to time. This is just another item that a teacher must add to her classroom shopping list, usually at her own expense.

Another issue around accessibility is the availability of scanners in schools. For example, Lee’s classroom is in a portable but the scanner is located in the library in the school building. “Remembering to go to the library to scan the reading tasks; making sure the reading tasks were there” (personal communication, June 3, 2009) was a barrier for Lee. The amount of preplanning that can sometimes be required can limit the

implementation of the technology. Mrs. Erb was very honest in her explanation of preplanning barriers: “It just takes a little bit of extra time that I need to find. The preplanning and the thinking ahead, going ‘oh, yeah, this would be a really good opportunity to use this.’ I don’t always think superfar ahead” (personal communication, June 2, 2009). Lee and Mrs. Erb’s comments remind me that integrating assistive technology into one’s daily teaching practice is not an easy thing. It requires a rethinking and a repatterning of habits. It is something that is a little “unnatural” for a while until it becomes part of our daily ritual.

Barriers with and to technology are a frustrating reality. I believe that without the support of a network of colleagues who are willing to help out when things go wrong with technology, many educators simply give up. There is nothing more embarrassing than facing a room full of 9- and 10-year olds, all looking to you to know what to do when technology doesn’t work. That was my experience with Laurie’s class that first day. But I wasn’t alone. I had my network of support. Laurie wasn’t giving up and the resource teacher at the school was helping out by emailing the IT Support staff. We were a community of learners who were showing the kids that “when the going gets tough, the tough get going.”

Validator’s perspectives. Participants’ responses to technical barriers and their appreciation for a community of problem solvers to deal with those barriers were noted by two members of the validation group. Karin Mertins noted that there was evidence of “palpable relief that someone was there to help” and Janet McCutchen commented on how “teachers were so open with their comments re: their own strengths and weaknesses and their own learning. This demonstrates the professional adult learning.”

Relevant Curriculum and Classroom Connections

The decision to make specific connections to the curriculum that my participants were exploring in their classrooms was made because of feedback I had received from my two previous action research projects (McDougald, 2006, 2008). It was a well-made decision because I found significant data to prove that these curricular connections while using Premier were extremely meaningful to my participants and their students.

Lee was a participant who did not wish to be videotaped; however, the following audiotape reveals a tone of voice that displays strong conviction about Lee's belief in the importance of the curriculum connection. Click on Clip N^o 7:

Using our own materials, we were more connected to the program. It wasn't like you were coming with a workshop version of how to use the program. You were using what we were working with directly that impacted on our daily work in the classroom. And that was important. Very important to me and I think real to the kids. So it was relevant and we were connected to the program through our material. (Personal communication, June 3, 2009)

Mrs. Erb also expressed how using her own curriculum based materials helped to make the program relevant and meaningful to her practice:

It's not like just a set of computer programs where this is what you're working on because this is what we have. This actually works with what I'm using. The fact that I can scan in anything that I'm actually working on....I really like. (Personal communication, June 2, 2009)

I believe that modeling the Premier program using curriculum-based tasks that were relevant to what was being taught in the classroom convinced the teachers of the

effectiveness of the program. Once they saw how certain reading and writing tasks could easily be accomplished using the Premier program, they started to think of their own creative and innovative ways of using the program on their own. I was extremely excited when these individual and innovative applications were discussed during the participant interviews. Miss G. implemented the technology in the following way:

I use it primarily in my reader's workshop. The [students] would first practice typing in their text, and then after they were done typing they would read that, read that, read that for the week. I also typed in some other appropriate leveled texts just to give them a variety... Then with any writing tasks for instance in Science or Social Studies I try to integrate the program as well. (Personal communication, June 5, 2009)

Debbie was also using Premier during her literacy centres each morning:

One of the things I am doing with Premier is using it as part of one of my literacy centres, specifically the listening centre. I will pick out a certain story, scan it in and they can listen to that story. One of my little fellas is really benefiting from the program. He actually has a lot of coordination problems—with flipping the pages, so we are eliminating that. The listening centre happens to be right here and the computer happens to be right next to it. So it's not as if they're not part of the group, but they're just working differently. We actually have used the listening centre more in the last few months than we had in previous months.

I have been using [Premier] when we do our morning message which is a really big writing part that our students do. They come in and they write every morning and they have an open-ended response that they need to reply to me

through a letter and they are able to use that as a way of writing it all without having to use pencil and paper. (Personal communication, May 27, 2009)

Laurie described how she is using Premier in the classroom to meet the specific reading and writing needs of one her identified students. In this video clip, Laurie's facial expressions, hand gestures, and tone of voice convey a caring and tender concern for a very special learner—more than her words alone typed on this page can convey. Click on Clip N° 8:

Well, I'm able to let one of my special needs students work with the classroom computer. What it does is gives this little boy a chance to read along with the other students...making it easier and more relevant and meaningful for him. Even with the word processing, being able to create his own paragraphs or stories—certainly lots more confidence there—and with the spell checker in there. It's great. (Personal communication, May 28, 2009)

Another surprise that emerged from the collaborative work in the lab and the interviews at the end of the study was the idea that using Premier may have actually assisted students in improving literacy skills such as reading comprehension, decoding, fluency, editing written work, and encouraging good reading strategies such as rereading. Debbie noticed that the Premier program helped to promote some important literacy skills that are important for primary-aged students to develop:

One of the things that I have found is that it has certainly helped them with their comprehension. What I find is they find it easier to understand the benefit of re-reading, going back into the text, rereading and then going through to answer some questions that have been devised for them. One of the things that I like

about the portion of it where they are writing is that they actually are using it as an editing tool. It is amazing actually. They can hear what they've written. All of a sudden they're discovering "I've made mistakes here. I need to go back" and quite often it's punctuation. (Personal communication, May 27, 2009)

Lee described how she believes the use of Premier increased her struggling readers' confidence and motivation to read independently:

I think the program has really supported two of the girls, both who were struggling readers in September, with things like their decoding and their fluency. [With the program], they didn't have to struggle with the mechanics of reading and once that decoding hurdle was overcome it allowed them to work with their thinking. In fact one of the girls said that "it let them think; now they could work on their thinking." I think that the other thing that has happened is that with having that support they have become more confident readers and they are starting to read more on their own, with whatever text they have. It has improved their sight word recognition. It has helped them with their decoding. It has just given them confidence to start working with reading. (Personal communication, June 3, 2009)

Two participants indicated that certain student's reading scores had improved. These reading scores are assessed using diagnostic reading assessment tools. The Diagnostic Reading Assessment (DRA) is used with primary students and the Comprehension, Attitude, Strategies, Interests (CASI) is used with junior and intermediate students. Each of these tools is used to diagnose each student's current strengths and learning needs. "I have done my DRA and all my students have jumped

and for my students who are using Premier, I'd say the most successful jump was about four reading levels and that's very good for the student I am thinking of' (Miss G., personal communication, June 5, 2009). Lee reported that two of her struggling readers received NE (not enough information) on their CASI survey in September. By the spring, one student had an overall CASI score of level 1 and the other had an overall CASI score of level 2 (personal communication, June 3, 2009). These scores represent independent reading levels without the use of the technology.

Two participants used the Premier reading and writing tools as a way of observing for underlying evidence of more complex language and learning issues. It was noted that even with the use of the technology to read to the students that some students were continuing to struggle with language comprehension:

The discouraging part is that even with the technology, D. and N. are not comprehending what they are hearing. Their oral language (receptive, understanding, oral comprehension) seems weak so the technology doesn't help them get passed that. When I spoke with Mrs. Erb she shared and agreed with my observations. (McDougald, journal entry, April 14, 2009)

Lee described how she used the program as a diagnostic tool to better understand the learning problems of one of her students:

I found that I used the program as a diagnostic tool in one respect. I knew she had reading hurdles—the mechanics of reading. But it really made it clear that that is not her only problem. Because now that she has the text read to her she still is missing the big picture. She still doesn't understand what is going on. She is still struggling with all the comprehension strategies. So in that respect it

became a diagnostic tool. It clearly ruled out just a reading disability. There's more that we need to check out for this student. (Personal communication, June 3, 2009)

Validators' perspectives. Each of the four validators made comments about the importance of the relevant curriculum connections as being a vital component to the participant's acceptance of the assistive technology as a useful tool for teaching and learning. "I was very impressed with the various environments for learning from a lab to just 2 computers in the classroom. The learning was meaningful for all" (Janet McCutchen). In her validator observations, Karin Mertins commented that the participants were "discovering and implementing innovative applications of assistive technology." Margot Kneale commented that "the increased level of technological learning is apparent in the activities teacher's embedded into their daily classroom practice." Dale McManis's comments have me convinced that curriculum connections are an important component of technology integration in to classroom practice: "What you have done with the teachers and students seen here is the best way to make technology an integral part of the curriculum and classroom."

Observation of and Reaction to Student Change and Growth (or Lack Thereof)

One of the most enjoyable aspects of the collaborative work that occurred between the participants and myself was the opportunity to observe, dialogue about, and assess student change and growth in literacy using the Premier program. This represented a significant change in the process of my action research from my first two studies. Because I was co-teaching with my participants it gave us plenty of opportunities to observe the students and to have professional conversations about

whether the technology was helping or not, assessing change and growth in motivation, reading comprehension skills, and increased accuracy and output in written work. In a sense we had built a culture of inquiry that previously had been the domain of me and other system learning resource teachers and psycho-educational consultants who were heavily involved in training and implementing assistive technology. My participants' knowledge about the technology and the advantages and disadvantages of the technology became more sophisticated over the course of our work together. They were able to make informed assessments about their students' literacy strengths and weaknesses. For me this was a highlight of the research study. I felt that these teachers had a better understanding of their students' challenges, needs, and strengths because they implemented the technology into their daily practice. I believe this is evidence that I was practicing my educational work while honouring the value of collaboration, building independence in others, and trusting in the intrinsic goodness of others.

Mrs. Erb and I made the following observations of two of her students while we worked together in the lab:

Tara and I agree that N. and D. have produced very little. N. has more severe issues: attention, receptive language, weak phonics and phonemic awareness and weak memory. She can't sound out words and she can't remember sight words. She is quite distracted by the technology. D. seems to have a pretty good grasp of initial sounds and when prompted he will listen to the word predictor. He is really hit and miss. Maybe with a quiet environment with prompts to focus he could use the Talking Word Processor (TWP) reader for EQAO but he has yet to produce a sentence in TWP independently. (McDougald, journal entry, March 3, 2009)

The notion of motivation was often a topic of professional dialogue during my work with the teachers. “Miss G. is good at seeing who matches well with the technology. This is an important piece because assistive technology isn’t for everyone. She sees that T. and S. are motivated learners and I think that is a key piece—motivation” (McDougald, journal entry, January 26, 2009). Lee found motivation to be a contributing factor for the lack of success of two of her students:

Now I have tried both programs with the two boys. These boys both have behavioural issues which are not learning issues and as a result they end up fooling around with it. They move off the program and they start surfing on the net and they are not committed. So I think the success of the program depends on the motivation of the kids that are working with it. (Personal communication, June 3, 2009)

Laurie made comments about changes she saw in her class as a whole and also in one student in particular. “Laurie commented on the growth since the fall in their ability to listen attentively to the text and to highlight pertinent info” (McDougald, journal entry, May 19, 2009). As Laurie noted,

[With my one student, there is greater] accuracy in his work when he is using [the Premier program]. I do find that when he is sitting at his desk doing his own writing he will probably give me more. I think that this is still novel for him. But he’s going to need it and the more he uses it in the higher grades perhaps the output will be greater. (Personal communication, May 28, 2009)

During the next video clip, you will see Debbie as she describes how the use of the assistive technology had allowed her to see abilities in one of her students that

previously were not evident. The audio- and videotape capture the wonder and mystery in Debbie's face and voice as she describes her experience. Click on Clip N° 9:

I am thinking particularly of B. who has been to a degree, until we starting using this, a mystery to me. B. had a very, very hard time focusing on the task. He can't seem to focus long enough to get something written down and yet having him sit at the computer, having him listen to stories, having him write his responses—he is just coming across with some marvelous ideas. It is almost as if it has just opened up this whole new world for him to communicate with me but also for me to see some talent in this child and some ability in him that really has been disguised and hidden. (Personal communication, May 27, 2009)

Validators' perspectives. Both Margot Kneale and Janet McCutchen commented on the reflective responses that teachers gave as evidence that a culture of professional inquiry and opportunity for critical dialogue was created and valued by the participants. Karin Mertins noted that participants were “going deeper with ideas; understanding the why's and [varying their] applications to specific students” as evidence that professional dialogue and collaborative observation had deepened their understanding and application of assistive technology for their students.

Change in Attitude Toward Self, Students, and Assistive Technology

A sixth theme which revealed itself during the data analysis process was the notion of change in attitude toward self, students, and assistive technology. This was an exciting piece of the data analysis because it showed that not only had there been some change occurring within the participants but that they were aware of the change and could articulate the change and growth that occurred. I believe that this awareness is a product

of a collaborative working relationship where the teacher's learning was supported, encouraged, and paced so that relevant and independent learning was the final result. I believe that the following statements are evidence that my educational coaching of these participants was guided by the values by which I live and work.

Two participants showed an increased sensitivity to their students' confidence and the idea that the technology created an environment of being "able" rather than "disabled." As Mrs. Erb observed,

I think especially for those ones [where] there's that barrier between their reading and their writing, this is just one extra thing where they can feel successful and say "Oh, I can do it. I have something that can help me." (Personal communication, June 2, 2009)

Laurie, in turn, shared the following: "Just making it easier and more relevant and more meaningful for him...certainly lots more confidence" (Personal communication, May 28, 2009).

Miss G. was a participant who was already quite naturally implementing different computer programs into her daily practice. Her technical skills were already quite advanced. From the beginning of the study she held strong beliefs about the effectiveness of assistive technology as a way to break down barriers for students who struggle with reading and writing. What was interesting was Miss G.'s change in attitude toward technology as it pertained to her whole school culture. Miss G. understood that she not only needed to improve her practice but that she needed to be looking outward to how the entire school viewed technology as a teaching and learning tool. I have no doubt that Miss G. will use her passion and perseverance to influence others in her school

community. This video clip shows her level of concern and determination to make assistive technology readily available to all learners. Click on Clip N° 10:

I think as a school the attitude towards technology is not yet a collaborative one so I think that poses some barriers too. So I would really like to see the school come together cohesively and work on that. Like I say, I don't have enough good things to say about the technology. I myself want to become more familiar with it obviously in my practice as an educator. (Personal communication, June 5, 2009)

One of the most astounding things that came out of the participant interviews that I conducted was the level of openness and honesty the participants shared about their own change in attitude and growth in learning. This marked for me a much deeper level that I had reached in my own action research methods. Because I was working so much more closely and collaboratively with my participants and their students and because we had built working relationships built on trust and professional dialogue, I believe it resulted in much richer reflection on the part of the participant. Both Lee and Debbie shared such open and frank reflections about their growth and challenges as learners and educators during their interviews.

Lee's reflections on her personal growth and change. Lee shared the following observations about her growth and change:

[What] I had to overcome, and again it is not resistance, [was] my own limitations in my technical skills and one of the things that really made a difference was the last two years, seeing what the computer could do for me personally and what I have learned to do with the computer made me more receptive to say "Okay, bring it in. Let's see what's going on." Maybe three or four years ago I would

have said “Oh, it sounds like a good idea but...” That personal experience with the computer made it not as frightening because really I stayed away from it. I believe that it’s a good program and the other thing is that I have seen what others can do with technology. I totally get what technology can do in a classroom but I do believe that it really comes down to the individual teacher’s interests. How motivated they are. How fearful or not fearful they are to start using the technology. (Personal communication, June 3, 2009)

Debbie’s reflection on her personal growth and change. Debbie’s reflection on her own growth and change are as follows:

I think I was clear when you first raise the issue, my skittishness with technology. I was familiar with Premier and Kurzweil. But not something I embraced with a passion. I don’t know if it is an age factor to some degree, maybe a lack of experience on my part, because for a lot of years, and certainly in my experience, computers weren’t used as much to support a program so I kind of avoided it...I don’t think it is wrong to recognize that as teachers, it doesn’t mean we know everything. Just because we have been in the business and just because the stuff is there in the system it doesn’t mean I’m an expert...What I really needed was I needed to be educated, I needed very much to be educated.

The funny little aside to all of this is that there was always kind of an understanding in the school that if somebody needed extra computer time they would check with Debbie to see if Debbie wanted to give up her computer time, and usually that would work. Now, all of a sudden, it doesn’t work and it’s like

I'm getting notes "can we use your computer time" and the note goes back and it says "NO." (Personal communication, May 27, 2009)

In this final video clip, Debbie discusses how her growth impacts her students.

The pride and joy that is evident on her face and in her voice cannot be matched with text alone. Click on Clip N° 11:

I'm thrilled with myself. I'm thrilled for the students. Just with some of the work that I have done with my students on IEPs [Individual Education Plan], it has been really wonderful for me to see that it benefits them and it helps me understand them better. But certainly it has made me feel more comfortable and I am saying to myself now "I can see how I can use this in my program." I've come along way! I think that's the important thing. I have come along way and as a teacher when you come along way in something obviously the students benefit from it. (Personal communication, May 27, 2009)

Validators' perspectives. Two of the validators for my study commented specifically on the growth and learning in teachers as an important outcome of the study. Dale McMannis noted the following: "They have been able to 'risk' knowing you have their 'back.' The growth in the teachers is so obvious." Janet McCutchen, who works in another set of schools in our school district made the following observations:

In my role as system learning resource teacher, I had similar experiences.

Teachers were as excited about their learning as they were about their students' learning. I've had verbal comments from teachers and some emails to support this, but the power of your videos was so inspiring. Seeing and hearing the

growth of the teachers was so powerful. This data needs to be shared. If we want this growth to happen, we need to have the supports in place.

The Student Voice

Throughout this data analysis one important voice has been silent. That is the student voice. I decided to keep the student voice separate from the other data for two reasons. Firstly, I wanted the focus to initially be on the teacher's observations and reactions to student growth and change while using the Premier program and secondly, I thought that separating the student voice and giving it its own section would elevate its importance.

In looking at the comments that students made about the effectiveness and usefulness of Premier, I found the comments to be similar to those I had gathered in my first two action research projects. Their comments speak about an increase in motivation and joy of learning, an increase in the ease of completing assignments, and frustration with certain technical aspects of computers. The following is a compilation of different comments students made throughout the course of the study:

- “I had lots of fun on Premier. It helped me when I did not know how to spell a word.”
- “I think the Talking Word Processor is fun because you can write and get read to. I like how the stories have questions about the story at the end.”
- “I also have had some problems with the Talking Word Processor, like the day it would not save (that was funny) and the day it would not work at all!!!!”
- “I think the Talking Word Processor is AWESOME!!!! because I am not wasting paper. I get to write and I like writing. The talking robots were handy too.”

- “I like how it reads back to me.”
- “I don’t think it’s work. I’m having fun. I want to read a story using the computer.”
- “I like using the Talking Word Processor so I can read information I find on the internet when I am doing my research projects.”
- “This was so much fun. I love this. I love this story.”

Triangulation

I have endeavored to include data from multiple sources and perspectives as evidence of the nature of my influence. I believe that by having 5 participants from five different classrooms and four different schools allows for varied perspectives and views. I believe that the themes that I represented in the data analysis were common threads that were mentioned by participants throughout the time of the study.

Including the validation group provided yet another perspective that was third party and not directly involved in the parameters of the study. I see their comments as validation to my claims of what I believe was transforming during the collaborative work with my participants. “Triangulation involves seeing if two different people who look at the same data come to the same conclusions as the teacher researcher” (DeLong, Black, & Wideman, 2005, p. 34).

Limitations of the Process and Outcomes of My Work with Participants

As I mentioned earlier in my data collection section, my data sources were the baseline questionnaire, personal journals, emails, and the videotaped interview. The questionnaires, emails, and interviews represent verbatim data from participants.

Although I did my utmost to write conversations and comments in my personal journals

as immediately as possible and as close to verbatim as possible, I know that some comments were paraphrased. I believe that I captured the gist and the essence of conversations and comments made by participants and students. As I have come to appreciate the power of the videotaped interviews, perhaps a subsequent study would consider using video recordings on a more regular basis throughout the study as a way of capturing completely accurate statements.

Because the videotaping represented a new area of learning and working for me, I realize that I should have spent more time using the camera outside of the perimeter of my study. The quality of the video interviews reflects a novice who is definitely learning as she goes. This was evident the first weekend I purchased the camera. It took 2 days just to figure out how to actually record and that was after reading the manual. The manual, however, did not make explicit that the red button meant record, not stop! If in further research studies I was to use the video camera more often, I would need to practice where to place the camera in order to best capture the participants.

Ethical Issues

I have tried my utmost to be as ethical as possible during my work in this study. Each participant completed a consent form and agreed to complete the baseline questionnaire and the interview. Each participant was presented with the individual data from all sources (questionnaire, emails, personal journals, and interviews) which I gathered during the course of the study. Each participant read through and approved the statements, quotes, and observations I have used in the data analysis section. I believe that I have represented my participants in an honest and open manner and I do not believe

that I am putting either the participants or their students at any risk by placing this action research project into a public forum. I have attempted to honour their voices truthfully and to be respectful of the schools and communities in which they work. All student data have been anonymously written and I believe that no harm will come to them as this study becomes public.

Looking Forward

In this vast, rich sea of data, what have I found? What have I discovered? Like all discoveries, it is what is found within that matters most and it is those internal discoveries that guide us on future journeys. The final chapter discusses the discoveries of the study and sets a course for further explorations.

CHAPTER FIVE: THE DISCOVERIES

The following chapter will explore what I learned during my study. I will discuss what I learned about myself as I unearthed my values as a person and an educator and what my early and professional influences were on my life. I will explore what I learned about influence from pertinent literature readings and what I learned about the nature of my influence as an educator from the work that I did during the study with my participants and their students. I will share my new learning experiences with the use of a video camera and editing software. I will discuss my enlightenment with the notions of congeniality and collegiality and how that enlightenment led to a personal theory of professional care that I will use to guide my future work with my fellow colleagues. I will discuss the limitations of the study as it pertains to generalizability. I will discuss how this study is situated within the body of knowledge in the realm of educator- to-educator support, professional development for educators, and the implementation of assistive technology into classroom practice.

What Did I Learn About My Values During This Study?

Ayers (2001) claims that greatness in teaching requires a serious encounter with autobiography. I took this quote to heart and so did the professors of the Master's cohort. Over the past 2 years, each professor has asked us to dig deep and attempt to answer some pretty big questions: Why are you an educator? Why do you act as you do? What do you believe and value? And why? Although I hope that I have always educated in a professional and virtuous manner, until now I could not have articulated clearly just what those values were or where they came from. I educated in an intuitive manner. If it felt right and it got results then it must be right. When I began the role of the system

learning resource teacher, I wasn't yet able to articulate my values and I wasn't aware of how values could guide my work with others. I think now that, because I understand my values and can articulate them clearly, I know why things feel right and get results when I am educating—whether that be with students or other educators. I believe that the greatest outcome of my Master's work and this study is a much clearer and stronger sense of who I am as an educator.

I appreciate now that some of my most fundamental values were developed in me by my first and finest teacher—my mother. The notions of positive and joyful environments where people work collaboratively are notions that, I now realize, I have endeavored to maintain throughout my educational practice and, I understand now, are values that positively influence others. My mother's modeling of and expectation of independence affected me greatly and the importance of independence (mine and others') is a value I hold very dearly.

Another significant teacher in my life has been my husband, Dan. For it was Dan who taught me to look for and find the goodness in all people—even those people who are difficult or a challenge for me. It was Dan who taught me to persevere through difficult situations.

My professional experiences in Special Education have also helped to shape my values as an educator. It was my work with students with special needs, my fellow colleagues in Special Education and Psychological Services, and my training in Schools Attuned that taught me to appreciate that learning is highly individualized and specific to each person. That getting what we need and not just getting what everyone else gets is vital to each person's learning success—is it student or adult learner.

And so it was with this very serious, and at times difficult, encounter with my autobiography that I was able to more clearly define who I was as an educator and articulate the values that I believe I hold and that I endeavor to follow to guide my practice. It is with a renewed sense of self and pride that I can say I value the following: a positive attitude, a joyful working environment, collaboration and togetherness, a sense of duty and service, the intrinsic goodness of others, independence, and modeling the attitudes and behaviours I want to see in others.

I believe that being aware of these values truly did assist me in my work with the participants in my study and allowed me to reach a higher level of collegiality. As I worked with the participants and their students, I was consciously asking myself if I was living my values in my practice: “Were you positive in word and action, Theresa? Did you ask good questions that invited collaboration? Did you accept their words and actions with an intrinsic belief in their goodness? Did you present yourself in a way that conveyed your sense of duty and service toward their professional learning and growth? Did you teach and act in such a way that their independence was assured? Did you model the attitudes and behaviours you want to see in others?” I know there were days when the answers to these questions would have been NO! It has been a challenge for me to work with another person’s agenda, pace of learning, and system of values and beliefs. It was difficult for me to let my participants lead. I think as educators we are so used to “running our own show,” that it is challenging to take a back seat to another. Having my values to keep me in check kept me focused on the important things—the teacher learning and the student learning. I believe that it was this conscious awareness

of my values that led to a deeper understanding of the nature of my influence as an educator.

What Did I Learn About Influence From the Literature?

I started developing the question around influence in the fall of 2007. Just what is influence? What does it look like? I began to explore these questions by searching my *Collins Essential Canadian Dictionary* (2006): “Influence: effect of one person or thing on another; person with the power to have such an effect; have an effect on.” Then I looked up effect and power. “Effect: hold, magnetism, power, spell, sway, weight. Power: ascendancy, authority, clout, control, domination, importance, leverage, manna, mastery, prestige, pull.” I decided to look up affect. “Affect: control, guide, direct, manipulate, sway.” Finally, I searched influential. “Influential: important, authoritative, instrumental, leading, potent, powerful, significant, telling, weighty.” My initial reaction to my search was one of real concern. I don’t want to have power or control over other people! I decided to highlight the words that didn’t repulse me: “guide, instrumental, leading, telling.” These words seemed safe to me—less manipulative. I was shocked that the word “influence” could evoke meanings that, to me, seemed to be so contrary to each other. I contemplated the word “leading” and decided to look up the word “leader.” A similar experience occurred. Some of the meanings conveyed notions of control, power, and exceeding: “conduct, pilot, escort, precede, steer, induce, persuade, preside over, manage, supervise, surpass, outdo.” I was much more comfortable with other meanings that were listed: “guide, model, contribute to, experience.” This initial dictionary search made me realize that I was entering into an area that was not easily defined and varied widely in interpretation and opinion. It was obvious that more reading

and exploration was required. I asked my advisor, Dr. Jackie DeLong, where I should begin. A dangerous question—she sent me home with a box of books!

The first book I looked at was titled *Influence: Science and Practice*, by Robert Cialdini (2001). I began reading the introduction, where the author discussed his interest in the “psychology of compliance” (ix). I flipped to the first chapter. It was called Weapons of Influence. At this point, I put a large X on my journal page and placed the book back in the box. This was like some of those dictionary definitions that had repulsed me. This is not how I wanted to be influential. This is not what I thought influence was supposed to be. I picked up another book, *The Seven Habits of Highly Effective People* by Stephen Covey (1990). I began reading Covey’s work and taking notes: “powerful influence of our own character and motives and of our perception” (pp. 19-21); “can’t improve relationships with others before improving ourselves” (p. 44). Covey’s words were speaking to me because he was talking about how we influence others by working on ourselves, by improving ourselves. This was starting to make sense to me. When I read the following quote I began to see how the increased awareness of my values could lead to becoming more influential in my work with educators:

The real key to your influence with me is your example, your actual conduct.

Your example flows naturally out of your character, or the kind of person you truly are—not what others say you are or what you may want me to think you are.

It is evident in how I actually experience you. (Covey, 1990, p. 238)

The essence of Covey’s quote is to lead by precept and example. I saw that my value of modeling the attitudes and behaviours I wanted to see in others was what Covey was referring to. I was beginning to form my notion of influence.

The next book in the box was *The 8th Habit*, also by Stephen Covey (2004). I found more inspiration and guidance for what influence could mean:

find your voice and inspire others to find theirs (p.5); inspiring others...to find their voice and increase their effectiveness, growth and impact. You will discover that such influence and leadership comes by choice not position or rank (p. 10); people are not things needing to be motivated and controlled; they are four dimensional—body, mind, heart and spirit (p. 21); when you teach or share what you're learning with others, you implicitly commit socially to live what you teach (p. 32); leadership is communicating to people their worth and potential so clearly that they come to see it in themselves. (p. 98)

When I read these words I felt that the values that I had unearthed were being reinforced. It seemed to me that Covey was speaking about the intrinsic goodness in others and about working collaboratively with others.

The next book that I picked up from the box was *Moral Leadership: Getting to the Heart of School Improvement* by Thomas Sergiovanni (1992). Sergiovanni was reminding me that knowing myself and my values was my first step to understanding influence and leadership: "Reflection combined with personal vision and an internal system of values becomes the basis of leadership strategies and actions" (p. 7). It was, however, Sergiovanni's exploration of servant leadership that affected me most. It was so refreshing to read about leadership described as being in service to another's needs. I think that we often think of leaders as having their own agenda and being focused on their own success rather than the success of those they lead. The following statements about service leadership began to solidify for me what I felt influence should be:

moving toward valued social ends means placing oneself in service to students, parents and to the school and its purpose (p. 53); when respect for all is taken seriously, leadership is forced into servant mode. One way to show respect is to serve another person (p.116); the servant leader serves others by advocating on their behalf. (p. 128)

It was this next quote that made me realize that service to others could potentially have an effect on professional attitudes and practice: “Servant leadership is practiced by serving others but its ultimate purpose is to place oneself, and others for whom one has responsibility, in the service of ideals” (p. 138).

It was with these influential ideas from Covey and Sergiovanni in mind that I began to study the nature of my influence as an educator by working with the participants in my study. Although the notions that Covey and Sergiovanni discussed in their books were intriguing to me, it was the work with my participants and their observations and comments that truly enlightened me about the nature of my influence as an educator. The fabulous five taught me so much.

What Did I Learn About Influence From My Participants?

When I consider the work that my participants and I did together and after extensive analysis and consideration of the themes that revealed themselves I see the nature of my influence revolved around four main areas: relationships, expertise, relevance, and dialogue.

The area of relationships was most enlightening. I think often we think of relationships to mean being friendly and easy going. What my participants showed me was that building a bond with their students was a critical aspect of the relationship

between me and the participant. It was important to the teacher that I was connecting to the students and that I became an important person in the student's school experience. The other important element of relationships for the participants was that I demonstrated that I was "in service" to them and their needs. Reading Sergiovanni gave me the words to use to describe this vital element of the educator-to-educator relationship. All participants discussed that it was important that I designed lessons and training sessions that met the goals they set for themselves and that moved at a pace that allowed them to become competent users of the assistive technology. The collaborative relationship worked because I did not come with a set agenda. The learning was tailored to the needs and interests of the learner—both student and teacher. I think that in my previous action research projects I pushed my own agenda on my participants. I didn't take the time necessary to really make the learning "custom-fit" the needs of the classroom teachers. Consequently, in many cases, there was no long-lasting implementation of the technology into classroom practice. The participants in this study have taught me that in future collaborative interactions I need to build bonds with the students, be patient, and be attentive the needs of the teacher. It is these actions that will likely create stronger relationships with the potential for longer lasting influence.

My participants also enlightened me about the importance of expertise as a factor of influence. Their feedback indicated to me that they valued the fact that I was competent with the Premier program as well as with technical computer skills. They valued my knowledge of curriculum and assessment and how the technology could be used by students with reading and writing challenges to access the curriculum in a meaningful and respectful way. Many participant comments indicated that they valued

the teaching methods that I used to train them and their students. Routman's (2003) optimal learning model certainly guided me in my teaching during this study and I believe made a significant difference to the level of technical success that the students and the teachers were able to obtain during the study. Modeling and guided practice led to independent practice in most students and in the teachers as well. I believe it is an excellent model for learning. I am so indebted to my participants for giving me the opportunity to hone my craft in their computer labs and classrooms using the optimal learning model. I believe I have improved my teaching skills greatly just by the practice time that has been afforded me over the months of this study.

The notion of relevance was an area of importance for the participants. I believe that they were more receptive to the use of the assistive technology because I demonstrated the technology using curriculum that was relevant to their grade and area of study. Each lesson had a very clear and definite link to reading and writing expectations. Participants also mentioned that the links I made to assessment were important to them. I think that often, technology is presented in a "look how cool this is and look what it can do" manner rather than presenting the technology as a tool that assists in meeting curriculum expectations and building academic skills in students. I think the participants appreciated that each of my lessons was curriculum focused rather than play time on the computer. Another important aspect for the participants was the relevance the assistive technology had for the student. Participants were intrigued by the increase in attention, motivation, and confidence in their students who were struggling readers and writers. My participants taught me that it is not enough to say "Try this technology. It will be

really good for Johnny and Jane.” In order to influence a change in practice I need to show the relevance to the teacher and to the student.

Another area where influence can flourish is in the area of dialogue. During each session with my participants I would ask for their observations and opinions about the Premier program. This allowed for a growing sense of ability on their part. During many sessions we would share our observations about the students and the success or difficulties they were having. We built a habit of critical dialogue that allowed for diverse views and opinions and encouraged the asking of good and sometimes tough questions about the suitability of the technology for particular students. Conversations were honest and frank and, as time went on, the level of sophistication around the discussion of learning and technology grew. This was particularly evident in the videotaped interviews. I realize now the importance of a sustained, collaborative working relationship in order to build that level of professional dialogue and that such professional dialogue fosters trust and respect between the educators.

As I contemplate these four areas where I believe influence took root in my practice, I am reminded of a passage I read in *Building Leadership Capacity in Schools* by Linda Lambert (1998). In this passage, Lambert describes the notion of leadership from a constructivist perspective:

Leadership is about learning together, and constructing meaning and knowledge collectively and collaboratively. It involves opportunities to surface, and mediate perceptions, values, beliefs, information, and assumptions through continuing conversations; to inquire about and generate ideas together; to seek to reflect upon

and make sense of work in the light of shared beliefs and new information; and to create actions that grow out of these new understandings. (pp. 5-6)

Lambert was helping me to understand the notion of constructivist learning from a theoretical standpoint. It was my participants that brought true meaning and practical understanding to the constructivist concept.

What Did I Learn About Myself as a Learner Through the Use of Visual Technology?

For many educators, using assistive technology, or any other technology, represents new learning and new challenges. One of the challenges for me when I work with educators to teach them about assistive technology is the level of technical skill. Many educators are beginners when it comes to using computer programs. I need to be patient as they grow and learn the technical skills required. When I was preparing to complete my final interviews, I had very little knowledge of how to use video cameras. I decided to buy a new camera to complete my interviews. I was going to be a beginner just like many of the teachers I work with. I was going to venture into new learning. One Friday evening, I purchased the camera and in my typical style, I read the manual from cover to cover and, step by step, I followed all the procedures for charging my video camera and customizing options. Everything worked fine and by Saturday morning the camera was charged and I was ready to video tape myself and my family for practice. After one frustrating hour I had a one-second video clip that I could play back. What was going wrong? I was following all the instructions to the letter and I had looked at the diagrams from every angle. I was so frustrated that I set the camera aside for the rest of the day. I walked away from it. My self-talk sounded something like this: “Oh, yeah.

You're a real techie, Theresa. You can't even get a simple video camera to work. You're supposed to be helping other people with technology? Yeah, right!" By Sunday, I was ready to tackle the camera again. After a few trials with similar results I started to take a closer look at the buttons I was pressing and in what order. There was a green button and a red button. Well, green always means go, right? Wrong! I realize that the red button was the record button and that I had actually been pressing the buttons in the wrong order. I share this scenario because it highlights the frustration that can come with using technology for the first time. What seems so obvious and simple can be very challenging at first. How many educators feel this way? There are many useful programs that would enhance student learning and engagement. But if left to figure them out all alone, some educators might just give up. I just about did with my camera!

The next stage of learning with my video camera was after the interviews were completed. I now needed to learn how to transfer the video from my camera to my laptop, how to edit the film and how to create DVDs—all new learning for me. I actually remember the feeling of fear that I had. I was worried I would lose all the interview footage (which represented a huge amount of priceless data). I remember feeling a little apprehensive and not knowing who I should ask for help. I wanted someone that wouldn't make me feel stupid. I thought about how this is what teachers might feel like when they want to engage in new technological learning. You know you need help but just to whom do you open up yourself and your practice? Who will treat you with care and respect? I decided to ask my son Tim. Tim has a gentle, humorous personality and I thought he would be a good technology expert to enlist to train me on video editing and DVD creation.

At first, Tim thought I wanted him to complete the job for me. I explained that I not only wanted to get the job done but that I actually wanted to learn and understand how to edit and create DVDs. Tim then modeled about 25 steps in 2 minutes and of course I was completely lost. I reminded Tim that he needed to break down the steps into small chunks and give me time to practice. He soon realized that he needed to let me work at my own pace but that he should remain close by in case I needed his support.

What I learned about my own learning through my first time experience with my video camera is that manuals are good but they'll only take you so far. That when you're frustrated, walk away for a bit, then return to it. You must persevere. The most fundamental lesson I learned, however, is that it is a huge risk to open yourself up to needing help from someone. You feel vulnerable and that you may be judged. There were times when I thought that learning to edit and make DVDs was just too much work. It would be easier just not to try. When you do decide to ask for help, you want that person to be understanding to your needs and to your pace and style of learning. As a support person to other educators, it is good to put myself in situations where I am learning something new. It reminds me how powerful those feelings of fear and inadequacy can be and how hard it can be to ask for help at times.

I am honoured that my participants were willing to ask for my help and that they allowed me into their classrooms and computer labs. I am humbled with how honest and frank they were with sharing their initial feelings of insecurity and then their growing sense of confidence. I certainly hope that they feel that they enlisted the right support person to help them in their learning.

Congeniality or Collegiality: A New Discovery

My 2 years of self-exploration during the Master's cohort and project have enabled me to discover myself anew. I have been exposed to and influenced by literature, professors, and my fellow educators. There are certain "enlightenments" that have occurred within me that I see as significant: one of them being my increased understanding of the difference between congeniality and collegiality.

In March 2009, the Master's cohort was partaking in deep discussion of the Challenge of Educational Leadership with Professor John Novak. One day in March, John discussed the difference between congeniality and collegiality. He asked if we understood the difference and then he asked us to reflect upon our relationships with our fellow educators to determine whether the relationships were congenial or collegial. This was a moment of enlightenment for me. I don't think that I ever saw the two relationships as different but more one and the same. Being nice and friendly was part and parcel of being collegial, wasn't it? I have reflected countless times on this notion of congeniality versus collegiality. I have analyzed and reanalyzed my relationships with fellow teachers and I have come to some startling conclusions. In some cases I was mistaking congeniality for collegiality. In these cases, the relationship was really just about being friendly and not making any waves. We were cordial to each other but we were not really sharing our educational practice with each other. In fact, there was no educational basis to the relationship. I also realize that my initial struggle with my new position as system learning resource teacher probably had something to do with my confusion between the difference between congeniality and collegiality. I think that because I was floating in unfamiliar waters I was looking for friends more than I was

looking for colleagues, at least initially. As I began working in many different schools and meeting such a variety of people, it was easier to be congenial. Just be friendly, don't make waves, and don't push too hard. Even as I began working with the participants in this study, I found it challenging at first to go beyond the simple and safe talk of classroom and computer logistics to talk about thoughts, feelings and values. Bringing a relationship to a collegial level requires commitment and an openness that can be risky for both members. Sergiovanni (1992) provided me with a very concise picture of what a collegial relationship looks like: "What makes two people collegial is common membership in a community, commitment to a common cause, shared professional values, and a shared professional heritage" (p. 91). I realize that the struggles I was dealing with at the beginning of my new role signified my struggle to understand the difference between congenial and collegial relationships and how to move from the first to the second. Serious reflection upon the meaning of collegiality and the revelations that the participants in this study have taught me, have brought me to a new level of understanding of the work we do together as educators.

Professional Care: A Second Discovery

When I first picked up Dr. Levine's (2002) book, *Educational Care*, it was the title that impacted me right away. I thought to myself: "That's what we do. We care for children in an educational way. We don't educate them. We care for them educationally." As I reflected upon this notion of collegiality I started to ask myself: "If we provide educational care for students, just what do we provide to each other, as educators?"

Over the past 3 months, I have been working on developing my living educational theory that will guide my educational life in the future. These notions of collegiality and care are at the core of my living educational theory.

**A Living Educational Theory of Professional Care: How Do We as Educators
Professionally Care for Ourselves and Our Colleagues?**

I often think back to my first few years as an educator. I remember strong feelings of loneliness. I remember thinking how ironic it was that I was surrounded by hundreds of people everyday in a school and how alone I felt at times. I felt a tremendous responsibility to be proficient in instructional strategies and class management while all the while I was feeling quite unaccomplished at both.

Juxtaposed to these feelings of loneliness and ineptitude was a feeling of nurturing that I received from several key individuals with whom I had the pleasure of working. These professionals were teachers and consultants who showed professional kindness to me. Although they were congenial, what set them apart from many other people with whom I worked was the fact that they were collegial. They showed a genuine interest in me as a professional and they were as concerned with my own professional growth and educational success as I was. These educators seem to encompass the attributes of steward leadership that Sergiovanni (1992) professes. They showed respect for me and the educational profession by advocating for me.

The last 3 years of my educational life, in a new role as a system learning resource teacher, have in many ways felt like my first 3 years as an educator. As a system learning resource teacher I have been creating my identity and honing my craft. Like that brand new educator I have been looking for the best model to follow and the

best techniques to use. At times I have felt quite lonely and inadequate. But just as in those first few years of teaching, I have been blessed to be in the presence of educators who provided me with nurturing, professional care. My fellow system learning resource teachers, Jo-Ann, Janet, Tracy, and Stephanie have listened to my concerns and have shared strategies and resources that have allowed me to grow and become a better teacher. They did so because they cared about my growth and ability to improve my work not because they had anything personally to gain from it.

At the same time I have tried to provide professional care to the teachers who I have supported in my role. Have I been able to appreciate their personal educational goals and show them professional care? It is upon reflection of the influential educators in my professional life that I have developed this living educational theory of professional care.

This theory of professional care has two faces: caring for self and caring for others. What is required to care for ourselves professionally and what can we do to care for our fellow educators in a professional manner?

Caring Professionally for Self

This notion of caring for oneself professionally encompasses several key concepts.

1. I have to possess a desire to improve my practice—of wanting to (and believing I can) get better.
2. I have to advocate for myself—a willingness to ask for what I need and/or a willingness to open up my practice so that others may see it and share in it and ultimately help to improve it.

3. I have to trust that others can professionally care for me—a willingness to be open to listening to others’ ideas; a willingness to journey with them in educational endeavors.

Upon reflection of my past experiences, I realize that I found myself in the presence of influential and collegial individuals because I was willing to ask for help. The questions I asked stemmed from my desire to improve my practice as an educator and I was willing to open up my practice to the eyes, ears and minds of other educators. I think these acts demonstrated a professional “care” for me, stemming from the notion that I have to care for myself first before I can properly care for others. What would have been the outcome, however, if I had sought help to improve my practice, and in so doing found congeniality instead of collegiality? What if the people I was seeking help from were more interested in just being “nice” and getting along rather than really caring for me in a professional manner? I suspect that over time I would cease to want to improve my practice; I would cease to ask questions; I would cease to care for myself professionally and I may cease to grow as an educator.

So an important aspect of this notion of professional caring is the second face: caring professionally for others.

Caring Professionally for Others

This notion of caring professionally for others encompasses several key concepts:

1. Being aware of those educators around me who could use my professional care.
2. Showing a genuine professional interest in my fellow educator’s practice—ask questions and permission to be involved in their practice.

3. Sharing my time, resources, knowledge, energy, and encouragement to help my fellow educator improve his/her practice.
4. Become an advocate of their endeavors.

As I reflect upon the influential and collegial individuals who have helped me grow as an educator I see that they encompassed all these actions. They gave of their time, knowledge, resources, and energy and became strong encouragers and advocates for the improvement of my practice. They listened to my questions and asked permission to be involved in my practice in a way that was trustful, safe and nurturing.

In his book, *Inviting Educational Leadership*, Novak (2002) summarizes Warren Bennis's work on the key characteristics possessed by leaders. One key characteristic, according to Bennis, is positive other regard. This involves the idea of "taking a concern for the well-being of others; finding delight in their successes and providing personal and material resources for them to be successful" (as cited in Novak, p. 41). In my notion of professional care, any one can be working as a leader as they take concern for the professional well being of another educator. When an individual directs his/her energy and resources toward the betterment of another's practice then they have also shown care of their profession and ultimately have improved the life of education and educators.

In the *Jossey-Bass Reader on Educational Leadership*, Kouzes and Posner (2007) looked at the five exemplary practices of leadership. Two such practices were enabling others to act and encouraging the heart. Kouzes and Posner found that leaders who enable others "foster collaboration and build trust [and] make it possible for others to do good work [and] work to make people feel strong, capable, and committed. Leaders enable others to act not by hoarding the power they have but by giving it away" (p. 68).

This type of empowerment of others really speaks to professionally caring for our colleagues.

Have I Been Living an Educational Life of Professional Care?

So if this notion of professional care is my living educational theory, the question is how well have I been living out my theory? From the face of professional care of self, I think I can honestly say that I have always opened up my practice to the thoughts and opinions of others by asking questions about my practice and inviting them to share in my practice. I have always found myself in the presence of collegial, caring educators because I was willing to ask for their input into improving my practice.

But how well have I provided professional care to the educators that I interact with in my daily work? This has been a challenge for me over the past three years as I have attempted to balance the needs of the child with special needs and those of the teacher. My role is to coach and support the teacher in his/her ability to program for the needs of a child with unique learning needs. However, I find that the goals and needs of the teacher do not always align with those of the student. How do I provide the teacher with the professional care he/she is seeking while assuring the child is educationally well cared for and programmed for? Reflecting on my practice and also engaging in collaborative reflection with my participants and my fellow system learning resource teachers, I have developed a better sense of what professional caring for others might look like. I know that I must allow them to set the focus of our work and the pace by which the work will advance. I know now that I can provide relevant resources and information but I must also allow time for absorption and implementation. I know that I must maintain a level of expertise so that my words and actions can be trusted. I know

that “being present” on a regular basis and gently questioning keeps the relationship moving forward and builds trust.

If I have learned anything over the past 3 years in my role as a system learning resource teacher, it is what an incredible risk it is to share our practice with our fellow educators. I believe in education that we are just beginning to break down the pedagogical walls of our classrooms and that we are beginning to invite our colleagues in to share in our practice in an open and trustful way. I am honoured to have had the opportunity over the past 3 years to have been invited into so many classrooms where teachers cared enough for themselves professionally to seek my assistance. I am privileged to have had the opportunity to advance my understanding and ability to provide professional care to other educators.

I believe that if, as educators, we could promote this theory of professional care of self and others that we could truly transform educational lives for teachers and students. Educators need to be creating cultures where we seek to improve our practice daily by wanting to improve, asking questions about our practice and inviting other professionals to share in our practice. As educators we also need to go to work each day with the notion in mind of caring for our colleagues’ practice as much as we care for our own.

Future Explorations

At the beginning of May, 2009, I learned that the system learning resource teacher position was not going to be renewed for the 2009–2010 academic year. Change is constant and once again I was going to find myself swimming in unfamiliar waters—but where? After hours of updating my resume, writing cover letters, and preparing for and participating in interviews, I found my new “educational home.” In September, 2009, I

will be a school-based learning resource teacher in a county school in my school district. I am looking forward to building collegial relationships and providing professional care to a new group of educators. I am excited about reentering the “school-based culture.” I realize, however, that influence is built over time and that it is the quality of the relationships that I build that will ultimately determine the depth of that influence. I know that in the past, I have been slow to open up my “personal” side and consequently, relationships have been slow to blossom. I am much more aware of this part of me now and I will endeavor to “let people in” to know me more personally. I know now that doing so builds trusting and fruitful relationships.

Limitations of the Study

I realize that to reach a level of collegiality similar to that reached between me and my participants depends upon a willingness on the part of both individuals to want to learn and improve. I have met certain educators in the past 3 years who had no interest in learning about assistive technology for themselves or for their students. Their “gates of change” (Covey, 1998) were well locked and they weren’t letting anybody in. The participants in my study showed a willingness to want to learn more about the potential for Premier assistive technology for their students even before I arrived on the scene.

I realize also that the participants and students in my study had access to computers in their classroom and in some cases in a computer lab as well. I understand that this may not be the case in other school districts (although I would hope not). Students and teachers in my school district also have access to Premier from every computer in the classroom or computer lab and this may not be the case in other districts.

The findings of this study are not generalizable to other classrooms, schools, or school districts. The context of the learning is highly individual. This work represents my unique self-study and the findings are meant to show me how I can improve my practice as an educator. That being said I do believe that others may find the work useful as it chronicles one person's experience with the coaching model of professional development for educators. Individuals who are studying how educators work with and learn from each other may find my study interesting. Other researchers may identify with the implementation approach that I used to integrate assistive technology into classroom practice. Previous research (Chmiliar, 2007; Deschler, 2005; Morrison, 2007; NATRI, 2005) has shown that there is a need for improved methods of assistive technology implementation to decrease the gap between the theory of and implementation of assistive technology.

I offer this study as an example of what one educator did to better understand and improve her art, her craft, her practice. I hope that it may help fellow researchers and educators to inform their own work. I hope that my study provides one small view into the world of education and educators and will be seen as significant in the literature on education.

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Appendix A

Brock University Research Ethics Board Clearance Letter

[insert clearance letter]

Appendix B

Baseline Questionnaire

Baseline Questionnaire	Name:			
1. I am comfortable using computer programs in the classroom.		No	Sometimes	Yes
2. I have used other assistive technology programs in my classroom (Co: Writer, Write Out Loud, Kurzweil, etc.)		No	Sometimes	Yes
3. I have attended workshops on assistive technology (Boardmaker, Writing With Symbols, Kurzweil, Premier, Smart Board, etc.)		No	Sometimes	Yes
4. I can solve basic computer tech problems on my own.		No	Sometimes	Yes
5. I have used computer programs to support reading and writing literacy.		No	Sometimes	Yes
If yes, which ones:				
6. I have students in my class who struggle with reading.		No	Sometimes	Yes
7. I have students in my class who struggle with writing.		No	Sometimes	Yes
8. I have students in my class who struggle with focus and attention.		No	Sometimes	Yes
9. This is what I would like to learn about Premier:				
10. This is how I feel you can help me with my learning:				

Appendix C

Interview Questions

Interview Questions:

1. Since our work together, which Premier Assistive Technology tools have you found most useful for you and your students?
2. Do you feel your students are performing better in reading and writing tasks using Premier Assistive Technology? Can you provide a specific example?
3. In what ways have you changed or altered your classroom practice to incorporate Premier Assistive Technology into your classroom? Describe any challenges you faced in doing this?
4. How do you feel about the use of Premier Assistive Technology as an everyday tool to support literacy in the classroom? Benefits? Barriers?
5. In what ways was my support helpful to you and your students? What kind of support was most useful to you and your students?
6. If you were to suggest a “best practice” model for technology support, what would it look like?
7. Have your attitudes or feelings about Premier Assistive Technology changed during our work together?

Appendix D

The Themes Matrix From Data Collection and Coding

Value/Theme	Relationship	Teaching/ Modeling	Technical Skills	Curriculum/ Classroom Connections	Reaction to Student Change/Growth	Change in Attitude
Positive attitude	G. j Le. Q5	D. j Le. e	Deb Q4,Q6	T. j,Q1 L. j Le. Q3	D. j T. Q4 G. Q2 L. j, Q4 Le. e,j	D. j,Q2,4,5 L. j,Q7 Le. Q3,7
Joyful environment	G. Q1,5 L. j, Q5	G. Q7 L. e, Q6	T. Q3 L, j	D. Q3 G. j, Q1,3 L. Q3	D. j T. Q2 G. e, j L. j Le. j	G. Q7 L. Q3
Collaboration and togetherness	D. e G. e	D. j,Q5 G. Q4 Le. j,e,Q3,5		L. j, Q5	T. j	D. j, e T. j G. j
Sense of duty and service	D. j L. Q5 T. Q5,6		D. e			
Intrinsic goodness of others	D. Q7			D. Q3		D. Q2,3
Building independence		D. Q7 T. j, Q3,Q7 G. e Le. j, Q3	D. e T. j G. j, Q3 Le. Q1	D. j, e, Q1,3 T. e G. e, Q1,3 L. Q2 Le. e, Q1	D. j G. j L. Q1 Le. Q2,3	D. j, Q7 L. Q7 Le. J, Q3
Modeling attitudes/behaviours		D. j		G. j		

D. = Debbie; G. = Miss G.; T. = Mrs. Erb; L. = Laurie; Le. = Lee; J = journal; e = email;
Q = interview question.