A Living Educational Theory of Knowledge Translation: Improving Practice, Influencing

Learners, and Contributing to the Professional Knowledge Base

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Abstract

This paper captured our joint journey to create a living educational theory of knowledge translation (KT). The failure to translate research knowledge to practice is identified as a significant issue in the nursing profession. Our research story takes a critical view of KT related to the philosophical inconsistency between what is espoused in the knowledge related to the discipline of nursing and what is done in practice. Our inquiry revealed "us" as "living contradictions" as our practice was not aligned with our values. In this study, we specifically explored our unique personal KT process in order to understand the many challenges and barriers to KT we encountered in our professional practice as nurse educators. Our unique collaborative action research approach involved cycles of action, reflection, and revision which used our values as standards of judgment in an effort to practice authentically. Our data analysis revealed key elements of collaborative reflective dialogue that evoke multiple ways of knowing, inspire authenticity, and improve learning as the basis of improving practice related to KT. We validated our findings through personal and social validation procedures. Our contribution to a culture of inquiry allowed for co-construction of knowledge to reframe our understanding of KT as a holistic, active process which reflects the essence of who we are and what we do.

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CHAPTER ONE: OUR STORY

This unique collaborative action research project is a self-study which explores our process of knowledge translation. Knowledge translation (KT) is a term used to describe the activities that foster the application of research findings to practice. Research in the KT field has flourished in recent years in an attempt to address the growing gap between research evidence in the literature and the limited adoption of evidence to clinical practice (Bucknall & Rycroft-Malone, 2010; Harrison, Legare, Graham, & Fervers, 2010; Kitson & Bisby, 2008; Kitson & Phil, 2009; Natsch & van der Meery, 2003; Straus, Tetroe, & Graham, 2009; Wallin, 2009). Within health care, the failure to translate research knowledge to practice is identified as a significant issue (Graham et al., 2006; Kerner, 2006; Kitson & Phil, 2009). Research-based practice is meant to improve quality of care for patients, clinician decision making, effectiveness, and efficiencies in health care interventions (Harrison et al., 2010; Natsch & van der Meery, 2003; Straus et al., 2009). However, solutions to address the KT issue are predominantly situated within a positivist orientation to learning. In this self-study, we specifically explore our unique personal KT process in order to understand it and address many of the challenges and barriers to KT we encounter in our professional practice as nurse educators employing traditional approaches to continuous professional development (CPD). In this chapter we describe the KT problem; state the problem context; outline the rationale and purpose of the study; describe our theoretical framework; articulate our research questions; and delineate the scope and limitations of our study.

Background of the Problem: Challenges of Knowledge Translation

We offer a description of the challenges of KT in order to provide the background

of the KT issue. Today, it is universally expected that health care practice decisions and actions are based on the most current and best available research within the health care discipline. The roots of this expectation can be traced back to the 1970s to British epidemiologist Archie Cochrane (Milton, 2007). Cochrane saw the need to examine the economics of health care to determine cost/benefit ratios. This examination contributed to the "focus on interventions, precise and thorough library research searches, and evaluation of evidence, and considers the randomized control trial (RCT) as the gold standard of research evidence" (Milton, 2007, p. 123). The focus intensified via the evidence-based practice movement (EBP). First coined in 1992 by physician-epidemiologist Gordon Guyatt and epidemiologist David Sackett at McMaster's Medical School in Canada, the fundamental principle of EBP posits a hierarchy of evidence to guide clinical decision making. The intent was to increase the rigour of research as well as to increase the transfer of knowledge from RCTs in routine decision making of clinical care (Sackett, Rosenberg, Gray, & Haynes, 1996). In principle, EBP is supported by clinicians, but it remains problematic in practice (Ferlie, Fitzgerald, Wood, & Hawkins, 2005). The advent of evidence-based health care has prompted a moving away from the *tradition* of practice to "valuing empirical research as a basis for learning" (Milton, 2007, p.124). As a result, there has been a shift in emphasis to valuing knowledge that is generated based on rigorous quantitative studies rather than focusing on "the social context into which the knowledge has to be implemented" or is created (Kitson & Phil, 2009, p. 126; Milton, 2007). Consequences that have evolved from the shift to an evidence-based approach include a knowledge management problem, a multiple use of terms, and multiple theories relating to KT.

Statement of the Problem Context: What Is Our Concern

Prior to beginning our graduate journey, we did not consider the opportunity to critically examine the KT issues in the nursing field. In practice, our examination of KT was limited to satisfaction and improvement surveying of attendees following CPD sessions. Our experience of having staff attend CPD activities that they found engaging and stimulating followed by a disappointingly slow and failing transfer of evidence to practice presented a paradox. Staff revealed that lack of time and confidence/expertise were common barriers for shifting knowledge to action (Personal communications, 2008). Despite our efforts to design professional development activities to enhance KT by attempting to address staff identified barriers, KT remained an issue in our workplace (Straus et al., 2009; Harrison et al., 2010). Morin (1998) advises that if we are to understand the current condition of events and where we are heading, we need to know what brought us to this point. Our graduate journey brought to light the possibility of our own contributions to the challenges with KT in our own practice. As nurse educators employing traditional CPD approaches, we have a concern related to our failure to facilitate KT.

We both relate to this approach in our own experiences. As an example, in her academic writing Jan reflects:

> As a nurse working within an advanced practice role, facilitating health care practitioners' professional development is an essential aspect of my position. Professional development has taken the form of interactive face to face sessions and modular on-line learning through the hospital learning management system (LMS). This large hospital has 4,008 LMS users and usually has high compliance

rates in participation in education initiatives among the staff. The face-to-face

sessions occurred on many units on different shifts to connect with most staff.

There were anywhere from two to 50 nurses per session, and sessions varied in

length depending on the demands of the unit and learner. However, 6 months

after the education occurred, it was revealed that staff had low compliance of

application of clinical guidelines. In other words, despite the knowledge of best

practice guidelines, nurses are not implementing knowledge into practice.

(Johnston, 2010, p. 5)

Our concerns align with Rycroft-Malone (2006) who suggests "pushing out

evidence in the form of guidelines does not mean practitioners will automatically use

them in their everyday practice" (p. 102). Knowing that the goal of the nurse educator is

to promote the adoption of EBP, we felt pressure to maximize on already existing CPD

opportunities. As a result of when we commenced our graduate studies, our shared query

was directed at finding the **most effective way** to design CPD activities to foster KT.

Despite our efforts to design professional development activities to enhance KT by

attempting to address staff identified barriers, KT remained an issue in our workplace. As

nurse educators, we entered into graduate studies with a deeply felt concern related to

"the profound disparity that often exists between what nurses know and what nurses do"

(Doane & Varcoe, 2008, p. 283).

A Knowledge Management Issue

Since the advent of EBP, numerous researchers, journals, guidelines, and

professional bodies have emerged. The overarching goal is the creation of research as

well as the improvement of uptake of evidence into practice (Kitson & Phil, 2009).

Additionally, the methods and processes to develop evidence in rigorous forms and then

translate evidence into products, such as clinical practice guidelines, has led to significant investment of national governmental bodies and professional networks to develop and disseminate clinical guidelines (Kitson & Phil, 2009). For example, Health Evidence and National Collaborating Centre for Methods and Tools in Public Health both have mandates to facilitate the use of research evidence in public health in Canada. The vast amount of research that exists and continues to be generated creates a knowledge management problem; that is, new and more research is constantly being created and published, contributing to an ever-evolving curriculum (MacIntosh-Murray, Perrier, & Davis, 2006). Kerner (2006) highlight the discrepancy between producing more research focusing on interventions compared with relatively little research related to specific strategies that will facilitate KT. The paradox is the KT literature itself is challenging to translate because of sheer volume.

Multiple Use of Terms

The sheer volume of research and number of researchers in the KT field has contributed to a lack of consensus related to terminology. Many terms are found in the literature for the process of getting knowledge into practice; for example: knowledge utilization, knowledge transfer, knowledge translation, evidence-based practice, knowledge to action, and knowledge mobilization (Graham et al., 2006; Wallin, 2009). Terms vary depending on authors and disciplines from which they originate. Graham et al. (2006) offer a robust review of the sources and definition of terms related to knowledge translation. However, this discussion is beyond the scope of the current project. The point we wish to make is that we are concerned that multiple use of terms contributes to the confusion about how to address the KT problem (Graham et al., 2006, p. 14).

For the purpose of this paper, we will use the term knowledge translation. We have chosen the Canadian Institutes for Health Research (CIHR) definition of KT because of its growing dominance in the health care field. CIHR is composed of 13 institutes and provides leadership and support to more than 14,100 health researchers and trainees across Canada (Canadian Institutes of Health Research [CIHR], 2012, para. 1). CIHR exists as the major federal agency responsible for funding health research in Canada and defines KT in the following way:

> Knowledge translation (KT) is defined as a dynamic and iterative process that includes synthesis, dissemination, and exchange and ethically sound application of knowledge to improve the health of Canadians, provide more effective health services and products and strengthen the health care system. (CIHR, 2012, para. 1)

Within the CIHR definition KT is viewed as a strategy that attempts to address the gap between research and implementation in practice with the intent of improving health and efficiencies. CIHR's mission is: "to create new scientific knowledge and to enable its translation into improved health, more effective health services and products, and a strengthened Canadian health care system" (CIHR, 2012, "About Us," para. 2).

We agree to use this definition as a starting point but wish to articulate some assumptions that are implicit in this definition. We argue that tentacles from the roots of evidence-based practice are evident in the mission of CIHR. More specifically, empirical knowledge is prioritized and the use of *products* implies a knowledge transfer rather than a more complex process of KT. However, changes to nursing practice

involve complex interventions requiring significant skills and knowledge to integrate evidence into practice (Doane & Varcoe, 2008).

Multiple Knowledge Translation Models

Multiple KT models or frameworks exist. We consulted with KT research expert Kara DeCorby to help identify the most widely used and relevant KT models in health care. Kara referenced two different systematic reviews that identified 28 and 47 KT models or frameworks respectively (Mitchell, Fisher, Hastings, Silverman, & Wallen, 2010; Ward, House, & Hamer, 2009). She went on to say that

> the point is there are dozens and dozens of [KT models and frameworks] but not all of them end up being ones that are familiar to everyone, and the appropriate model or framework should be selected based on its purpose. … However, there are seven that are reasonable as a list of familiar ones that I think most if not all of the people in the KT field would know. (Personal communication, July 10, 2012)

We choose to highlight Graham et al.'s (2006) Knowledge-to-Action (KTA) framework (see Figure 1) because of its growing dominance within the health care field and promotion by CIHR. We have a concern that the KT models or frameworks do not fit with our lived experience related to our own unique process of KT. We provide a brief overview of the KTA framework but offer a thorough comparison of our KT process expressed as our living educational theory to the KTA framework in chapter 5.

KNOWLEDGE TO ACTION PROCESS

Monitor Knowledge Use

Select, Tailor, Implement interventions

KNOWLEDGE CREATION

Knowledge Inquiry

Knowledge Synthesis

Knowledge Tools/ Products

Tailoring Knowledge

Evaluate Outcomes

Assess Barriers to Knowledge Use

Sustain Knowledge Use

Adapt Knowledge to Local Context

Identify Problem

Identify, Review, Select Knowledge

ACTION CYCLE (Application)

Figure 1. The knowledge-to-action framework.

The KTA framework

> conceptualizes the relationship between knowledge creation and action, with each
>
> concept comprised of ideal phases or categories. A knowledge creation 'funnel"
>
> conveys the idea that knowledge needs to be increasingly distilled before it is
>
> ready for application. The action part of the process can be thought of as a cycle
>
> leading to implementation or application of knowledge. In contrast to the
>
> knowledge funnel, the action cycle represents the activities that may be needed
>
> for knowledge application. (CIHR, 2012, "The Knowledge to Action Process,"
>
> para. 1)

In addition,

> this process takes place within a complex system of interactions between
>
> researchers and knowledge users which may vary in intensity, complexity, and
>
> level of engagement depending on the nature of the research and the findings as
>
> well as the needs of the particular knowledge user. (CIHR, 2012, "Knowledge
>
> Translation—Definition," para.2)

We identify the privileging of empirical knowledge as contributing to the

challenges of KT. The evolution of EBP has contributed to a knowledge management

issue and multiple use of terms and theories relating to KT. As a result, there is no clear

direction in the literature related to solving the KT problem. In chapter 2, we reference

literature and expand on the challenges of KT.

Rationale and Purpose of Our Inquiry

Our joint journey in the graduate studies program fostered a successful experience

with KT which centered on collaborative dialogue. Our personal success with KT

prompted us to recognize the narrow lens we were applying in attempting to seek one

theory or approach to tackle the complex issue of KT. Our success provides the rationale for us to turn our lenses inward and make explicit our collaborative process of KT. In seeking how our KT strategies worked for us, we have made ourselves the interrelated subject of our inquiry—that is, to explore our collaborative and individual experiences related to KT retrospectively (our experiences to date in our graduate work) and concurrently during our collaborative inquiry. A collaborative inquiry has the added value of allowing us to share narratives, reflections and artifacts while producing data during our inquiry.

The purpose of this inquiry is to improve our learning as the basis of improved practice related to KT. Our inquiry is driven by a desire to affect positive change in our workplace starting with our own professional development. We employ action research cycles of act, reflect, and revise to discover our living educational theory. A living educational theory "is the exploration of our educational influences in our own learning and in the learning of others and in the learning of the social formations in which we live and work" (Whitehead, 2009, p. 105). Our aim is to study our own practice as grounds for our own personal theory of knowledge translation and create a theory that can influence the learning of others. We hope that our collaborative inquiry to examine our KT process may provide useful insight for other nurse educators, nurses, and educators also struggling with a KT dilemma.

Theoretical Framework

The process of discovering how we can improve our professional practice of KT and contribute to the professional knowledge base involves a unique theoretical framework. We use this section to describe our unique qualitative action research

methodology within an emergent design. We provide the details of our methodology

early in our writing as we employed an emergent cyclical research process which impacts

the organization of our writing and presentation of our data. First we describe our

emergent approach and how it directs our inquiry. Next, we describe action research as

our main methodology and make reference to similar experience-based inquiry methods,

including grounded theory approach, self-study, collaborative inquiry, and narrative

research.

Emergent Approach

Emergent methodology has been coined by Dadds and Hart (2001) as

methodological inventiveness. Although our research methodology is primarily situated

within living theory methodology, we adopt methodological inventiveness, which

includes:

> a willingness and courage of practitioners—and those who support them—to
>
> create ... their own unique way through their research may be as important as their
>
> self-chosen research focus. ... No methodology is, or should be, cast in stone, if
>
> we accept that professional intention should be informing research processes, not
>
> pre-set ideas about methods of techniques. (Dadds & Hart, 2001, p. 166)

Bullough and Pinnegar (2001) support methodological inventiveness as a way to

study our unique selves and our practice. This approach has also emphasized the

importance of having a deep sense of control over the research design versus following a

prescribed route that has been dictated. Our use of methodological inventiveness has

enhanced our motivation to immerse ourselves in the research (Dadds & Hart, 2001). Our

inquiry is predicated on our emergent action research approach; as a result, we embed

data throughout our paper, described in Appendix A. We embed the data in the form of

journal excerpts, recorded and transcribed dialogues, and photographs to make clear how the meanings of our findings directed our inquiry process.

Action Research

Action research is part of a larger family of experience-based and action-oriented inquiry methodologies. Inquiry methodologies are characterized by: an improvement focus; being interactive and collaborative; the identification of a living contradiction; and is subjected to validity criteria disclosed for the public arena (Charmaz, 2006; McNiff & Whitehead, 2011; Pinnegar & Hamilton, 2009). Different people say different things about what action research is. McNiff and Whitehead (2011) describe a process of action research called living-theory action research that is a form of self-study and involves the practitioner researchers to "offer their own explanation for what they are doing" (p. 11).

Living-theory action research involves action, reflection, and revision cycles as an overriding method for "problem-forming and solving" (Whitehead, 2009, p. 107) and "can turn into new action research cycles, as new areas of investigation emerge" (McNiff, 2002, p. 11). In this way, action research is an iterative process that is used to address a practice issue in an attempt to find a solution. McNiff and Whitehead (2011) urge practitioners to create their own theories by studying their living practice. We adapt Whitehead's (2009) action research to guide our research steps. We use action research as it is grounded in personal knowledge that relates to one's practice and values, rather than the theory being independent of practice. The framework includes cycles of: "imagining ways of overcoming [our] problems; acting on a chosen solution; evaluating the outcomes of [our] actions; modifying [our] problems, ideas, and actions in the light of [our] evaluations ... and the cycle continues" (Whitehead, 1989, p. 44). A living theory methodology can be understood as a self-study involving: "I" (or "we") as a living

contradiction; methodological inventiveness; the use of action reflection cycles; the use

of procedures of personal and social validation; and the inclusion of values as

explanatory principles of educational influence (Whitehead, 2009). In order to develop a

living educational theory (Whitehead, 1989), one must be able to:

> in the course of examining one's own practice, be able to see (one) self as a living
>
> contradiction, holding educational values whilst at the same time negating them ...
>
> by identifying the discrepancies between our espoused values and our enacted
>
> values we create tension which moves us to imagine alternative ways of
>
> improving our situation. (Whitehead, 1989, p. 4)

Important links are made between our unique research approach and the theoretical

frameworks of four other methodologies. First, Charmaz's (2006) constructivist grounded

theory methodology involves the discovery of theory through the analysis of data

(Ghezelijeh & Emami, 2009). More specifically, Charmaz's grounded theory approach

views data collection and analysis as created from shared experiences, relationships, and

other sources of data (Ghezelijeh & Emami, 2009, p. 18). The data collection process is

meant to uncover the participants' feelings, beliefs, and perspectives related to a process

(Creswell, 2008). As in creating a living theory, the goal is not to generate a theory that is

generalizable but rather "focus on the meaning ascribed by participants in [the] study"

(Creswell, 2008, p. 439).

Second, Pinnegar and Hamilton's (2009) self-study methodology relates to our

methodology: "Self-study involves personal stories ... that arise out of our challenges,

frustrations, and dilemmas" (Samaras & Freese, 2006, p. 2). Samaras and Freese (2006)

advocate for self-study as a viable approach for practitioners to understand and enhance

their own professional development and the development of others. Our chosen methodology of action-research living theory is a form of self-study. It is significant that Pinnegar and Hamilton's (2009) self-study methodology highlights that "our understanding of dialogue as the process of coming-to-know" (p. 87). Specific to our inquiry, what we find salient in self-study research is that collaboration is considered a fundamental element; it promotes interaction with others and their ideas through dialogue as a method for knowledge creation (Pinnegar & Hamilton, 2009).

Third, Kasl and York's (2002) collaborative inquiry (CI) methodology supports the joint nature of our inquiry "as a group of peers striving to answer a question of importance to them" (Bray, Lee, Smith, & Yorks, as cited in Kasl & York, 2002, p. 4). CI methodology supports our collaborative research inquiry as it functions under two fundamental participatory principles: each inquirer participates actively in his or her own meaning making by using processes that ground new knowledge in personal experience, and each inquirer participates fully in all decisions that affect the inquiry. We have participated equally and democratically in our co-inquiry. Co-operative inquiry is a form of second-person action research in which all participants work together in an inquiry group as co-researchers and as co-subjects (Heron & Reason, 2001). The specific methods employed in co-writing and researching are described in chapter 3.

Fourth, McNiff's (2006) narrative research methodology aligns with our presentation of our account. To reveal our process of generating our living theory of KT, we use narrative to make clear "how [we] have taken action to improve [our practice] by improving our learning through action research" (McNiff, 2006, p. 308).

McNiff &Whitehead's (2011) living-theory action research methodology relies on the principles of methodological inventiveness for practitioners to discover meaningful ways to study their own practices for improvement. We have used this section of the paper to clearly describe the specific methodologies employed in our inquiry. We believe our inquiry process is as significant and as important as our outcomes.

Research Questions

We are interested in our own process of KT as nurse educators jointly engaging in graduate studies. Our questions are:

1. What is our living educational theory of knowledge translation?

2. How can we contribute to the professional knowledge base in nursing as it relates to KT?

The purpose of seeking to answer these research questions is for improvement. Our aim is to understand our process in order to improve our KT.

Scope and Delimitations of the Inquiry

This inquiry does not seek to conclude a grand model of knowledge translation. Rather, we intend to examine our KT process in order to understand it. Generalizing the findings of this inquiry is not realistic because of the living theory approach that focuses on our own improvement specific to our own values. It is not our intent to disregard the current approach to KT, nor reject current approaches to CPD but rather question them in relation to our own experience.

Outline of the Remainder of the Document

We offer a brief description of what each subsequent chapter will contain and its relation to the study. This section is intended to serve as an advance organizer for the reader. Chapter 2 presents our concerns of KT related to our own philosophical orientations as well as the philosophical inconsistency between what is espoused in the knowledge of the discipline of nursing and what is done in practice. We also present a critical view of the challenges of KT and the identification of our disorienting dilemma. Finally, we imagine a way forward by identifying the elements necessary in resolving our KT dilemma.

In chapter 3, we describe methodological assumptions, discuss limitations, and describe our data collection and the process we used to analyze and validate the data.

We present our findings in chapter 4. We identify the main themes from the triangulation of the data and make links to relevant literature. Also, we explain how each theme informs our research questions.

In chapter 5, we synthesize our research story in the form of our living educational theory. We discuss how our model contributes to the nursing profession. We make comparisons of our living educational theory to the KTA framework and McMaster University's Nursing Education model. Next, we offer some challenges and critique of our living educational theory. Finally, we suggest implications for future action and summarize our inquiry.

CHAPTER TWO: SITUATING OURSELVES WITHIN OUR
RESEARCH INQUIRY

In this chapter we situate ourselves as practitioner researchers and explore relevant literature as it relates to our research questions. First, we situate our research question within our practice. Next, we broadly relate our question to differing philosophical orientations towards knowledge and then make more explicit links to the philosophical orientations towards knowledge and knowing espoused in the nursing profession. We express our own worldviews as a way to demonstrate how we align with the differing orientations. Our research story evolves to a critical view of the KT issue which aids in the articulation of our disorienting dilemma of failing to walk the talk. Revealing ourselves as *living contradictions* reinforces the personal meaning of our research query. Finally, we use a concept mapping (Novak & Gowin, 2002) activity to make clear our assumptions of what has contributed to our collaborative KT process.

Developing an Awareness

We used personal reflective journal excerpts to illustrate how our professional practices were impacting the way we felt and acted (Delong, Black, & Wideman, 2005). Jan's journal entry on June 6, 2011 demonstrated a developing awareness of her own view of KT as contributing to the KT conundrum. Jan writes:

> *My MEd experience has increased my awareness of my mindlessness. I was going through the motions on autopilot, seeing things through a single lens—not all the time but the way I translate knowledge was not articulated, examined, or understood. Although I considered myself to be a reflective practitioner—I was stuck. At times, I would feel like I was not making a difference, I was frustrated at*

work and feeling ineffective despite making efforts to create a safe learning environment and purposely using adult learning principles. I would find myself in the same place, stuck in my thinking. For example, reflecting on my experience in my role as a nurse educator and feeling that we had failed in achieving our objectives as nurses failed to adopt new practices after the education sessions. This experience challenged my thinking, my habit of mind. At first, I felt the nurses were resistant to this new knowledge. The nurses claimed they were not confident in their abilities, felt they needed more time to practice and they had competing priorities that was a barrier to adopting or embodying this new knowledge. I felt there was still an underlying resistance. Jen and I had discussed this unspoken tension and resistance of our colleagues and were trying really hard, providing many of the "right" adult learning strategies. In reflection, I committed a dualism. In essence, I was blaming the individual nurse and myself for failed KT. I felt I was "right," acting with integrity, acting on the authority of so-called best practice; conversely they were not giving best practice a chance, rebelling out of fear they may discover something disagreeable about their practice. I felt helpless, disconnected and alienated from my colleagues.

An excerpt from Jen's academic writing on April 8, 2011 illustrates her growing awareness of the complex issue involved in KT and how her practices were confounding the issue:

Despite this rippling inwards and outwards in perception of the KT issue, my life position shifted to: I am not okay; you are not okay. I was feeling like I was moving with the herd towards mindless automaton conformity (Brookfield, 2002;

Langer, 2000). I was overwhelmed by what Brookfield (2002) described as the burden of freedom or being different and Cole's (2009) "living in paradox" (p. 1). The paradox was now I was no longer blaming myself for the challenges with KT, but I was not sure I had the energy or desire to go against mainstream. Despite my growing awareness and my reflection on action, I could not yet pinpoint how to avoid the trap of "analysis paralysis" (Kinsella, 2007). I did not know how to move, in earnest, to reflection in action or reflection for future action (Greenwood 1993; Wilson, 2008). (Vickers- Manzin, 2011a, p.7)

Our graduate journey provided the opportunity of a safe space for dialogue to explore each of our experiences. We came to realize that we needed to identify and critically examine the current philosophical orientations towards knowledge and knowledge of the nursing discipline to further our understanding of the broader KT issue. Also, we needed to articulate and contrast our own worldviews to the dominant nursing orientation to illustrate magnitude of our disorienting dilemma.

Philosophical Orientations Toward Knowledge

The term "knowledge" is used in a wide variety of ways (Wells, 1999). Implicit in the CIHR's definition of KT is: "knowledge is primarily scientific research, as made clear by the CIHR clarification that the interactions are between researchers and users and researchers tend to only produce research or science" (Graham et al., 2006, p. 14). Many forms of knowledge have been distinguished in the literature; however, we provide a broad description of two types in order to contrast orientations. Rycroft- Malone (2006) refers to propositional and non-propositional knowledge. Propositional knowledge represents knowledge that is generated through the traditional paradigm of scientific

discovery. In this orientation, knowledge generators are typically in different communities from those who use their *products* and the spread of knowledge operates in a hierarchical, sequential way (Belenky, Clinchy, Goldberger, & Tarule, 1986; Doane & Varcoe, 2009; Kitson & Bisby, 2008; MacKeracher, 2004; McNiff & Whitehead, 2011).

Conversely, non-propositional knowledge is viewed as knowledge that is generated within the context of application. In this orientation to knowledge generation the context influencing knowledge development is less formalized. Knowledge is derived primarily through practical, tacit, and personal knowing thereby linked to life experiences. Non-propositional knowledge relates to social epistemology. Goldman (2010) describes social epistemology as the study of the social dimensions of knowledge. In this view, understanding knowledge and learning includes the identification of social forces and influences responsible for knowledge production. Knowledge development in this orientation involves a trans-disciplinary approach and involves reflexive, social, collaborative, communicative, and emancipatory processes (Belenky et al., 1986; Cranton, 2002; Doane & Varcoe, 2009; Imel, 1999; Kitson & Bisby, 2008; MacKeracher, 2004; McNiff & Whitehead, 2011).

Propositional knowledge has gained higher status and scholarship and is concerned with generalizability of knowledge (Doane & Varcoe, 2009; Wells, 1999). In this orientation, non-propositional knowledge is not as valued because of the informal processes that generate knowledge (Graham et al., 2006; Kasl & York, 2002; Kitson & Bisby, 2008; Reimer-Kirkham et al., 2008; Rycroft-Malone, 2006). The debate about what counts as knowledge is not new to the academic literature. We argue it is critical to be aware that there is a continual pull towards knowledge that operates in similar fields to

EBP, which has a positivist paradigm, and an objectivity assumption (Reimer-Kirkham et al., 2009). In reality, clinicians draw on multiple evidences from both propositional and non-propositional sources (Bucknall & Rycroft-Malone, 2010). As nurse researchers, we are concerned with the uneven focus on what counts as knowledge and how this has impacted the approach to addressing the KT issue.

Knowledge of the Nursing Discipline

In an attempt to situate ourselves within our profession, we review the literature related to the knowledge of the discipline in nursing. Chinn and Kramer (2008) define knowledge of the discipline in the following way:

> In a discipline, knowledge represents what is collectively taken to be a reasonable and accurate understanding of the world as it is understood by the members of the discipline. The "knowledge of the discipline" is that which has been collectively judged by standards and criteria shared by members of the disciplinary community. (p. 2)

In 1978, Barbara A. Carper identified "four fundamental and enduring patterns of knowing that nurses have valued and used in practice" (Chinn & Kramer, 2008, p. 3). She states:

> It is the general conception of any field of inquiry that ultimately determines the kind of knowledge that field aims to develop as well as the manner in which that knowledge is to be organized, tested and applied. … Such understanding … involves critical attention to the question of what it means to know and what kinds of knowledge are held to be of most value in the discipline of nursing. (As cited in Chinn & Kramer, 2008, p. 1)

Carper's seminal work has influenced the nursing literature to include definitions of knowledge and knowing that acknowledge ways or patterns of knowing that are not scientific (Chinn & Kramer, 2008; Paley, Cheyne, Dalgleish, Duncan, & Niven, 2007). Chinn and Kramer (2008) support Carper's move beyond empirical ways of knowing to characterize four other ways of knowing, including: ethics or the moral component of knowing; personal knowing; aesthetic knowing; and emancipatory knowing. Ethical knowledge development relates to nurses' own moral development and understandings. Nurses reflect on their values as they relate to practice and ask: is this right? And is this responsible? (p. 108). Personal knowing is a dynamic and holistic process of becoming aware of self while valuing the other as a whole person. "Aesthetic knowing in nursing is that aspect of knowing that connects with deep meanings of a situation and calls forth inner creative resources … expressions of this knowledge take the forms of aesthetic criticism and works of art" (p. 150). Chinn and Kramer have also extended the understanding of Carper's description and suggest a conceptualization of emancipatory knowing. They define emancipatory knowing as "the human capacity to critically examine the social, cultural, and political status quo and to figure out how and why it came to be that way" (p. 5). As a profession, within the nursing literature, we have engaged in critical work to arrive "at a broad consensus which says: there is a scientific form of knowledge, but there are also other forms of knowledge, which are characteristic of nursing and equally significant" (Paley et al., 2007, p. 693). In other words, nursing's espoused view presents a holistic understanding of knowledge considering both non-propositional knowledge and propositional knowledge equally. Rycroft-Malone (2006) questions if EBP has been adopted by nurses without thinking about what it really means

to nursing and the process of caring. Doane and Varcoe (2008) have highlighted that what is espoused may be different than what is practiced:

> Although as a profession we have engaged in critical work to explicate the interconnections among, theory, evidence, and practice at the discursive level (e.g., within the scholarly literature), where we seem to have run into problems is translating the interconnections into action. That is at times we have difficulty walking the talk. (p. 283)

Despite the acknowledgement in the nursing literature and our governing bodies of multiple ways of knowing and constructions of knowledge, propositional knowledge has "epistemological priority over other forms of nursing knowledge" (Paley et al., 2007, p. 692). The propositional orientation implies that our beliefs, assumptions, and values are separate from what we know. Although health care institutions, professional bodies, and nursing schools espouse the non-propositional orientation to knowledge in practice, there are many behaviours and activities that reflect the propositional orientation (Doane & Varcoe, 2009).

Many critics question whether good science is enough for good practice (Estabrooks, 1998; Kerner, 2006; Kitson & Phil, 2009; McCormack et al., 2003; Reimer-Kirkham, 2009; Scott, Estabrooks, Allen, & Pollock, 2008). Doane and Varcoe (2009) discuss how knowledge generation and application to practice is impeded by privileging and segregating empirical understanding of ourselves as knowers (Avalos, 2011). However, nursing occurs not in a laboratory but within the nursing interaction which is laden in social context. We agree with the discipline of nursing's espoused holistic view of knowledge and suggest that *evidence* is not transparent or value-free. We agree that

one way of knowing should not dominate decision making, as decision making does not simply involve a weighing of the evidence. We are concerned that an approach to understanding knowledge and knowing that is generated solely within a positivist framework fails to fully embrace the perspectives of the real world.

Our Beliefs and Worldview

Becoming aware of what is espoused and what is practiced in nursing motivated us to articulate our worldviews. A description of each of our worldviews is offered as our views have directed the research design and unique approach we have taken in this inquiry.

An excerpt from Jan's academic writing illustrates her worldview:

I prefer to adopt theories or models that align with a post-modern or emergent paradigm in which holistic, constructivist, or critical approaches to teaching and learning are valued. It is grounded to my ontological stance in a particular context to real experiences that informs and contributes to at least one nurse's (teacher) education and development. Thus, my world view is dependent on my individual context as my world does not have an endless predictability; it is multidirectional; considers gender and culture; and is everlasting. My world view is emergent in that I am open to perspective transformations and to critically analyze my reality and believe that education and knowledge production is not neutral (Nesbit, 1998; Scott et al., 2008; Tisdell,1998). My emergent paradigm both "irritates and animates" in my questioning of basic attitudes, assumptions and existing hierarchies.   (Johnston, 2011d, p. 20)

An excerpt from Jen's academic writing illustrates her worldview:

My worldview is predominantly situated within Morin's (1998) Emergent

Paradigm. In this view knowledge is not something that exists out there,

independent of learners; rather knowledge construction takes form in the "eyes

of the knower" (Kilgore, 2001, p. 53). Pratt (1998) captures the Emergent

Paradigm's belief about knowledge in his description of the subjectivist view of

knowledge. That is, knowledge is dependent on the learner's individual

perceptions. Learning involves actively making sense of something through

interpretation, interrogation, and meaning making that is personally relevant,

versus learning as a passive reception of knowledge (Pratt, 1998). I also

embrace the Emergent Paradigm's view that learning and knowledge are

directed by individual perceptions and that our perceptions are inextricably

linked to and influenced by social, cultural, historical, personal, contextual

factors as well as our lived experiences (Morin, 1998; Pratt, 1998). That is,

these factors intertwine to play a critical role in developing our cognitive

frameworks through which we see our world (Kilgore, 2001; Pratt, 1998).

Causality is seen a multidimensional and results in a shift away from content to

a global level of events and the learner's interdependent place in the world

(Morin, 1998). In this view all life experiences are learning experiences

(Merriam, 2001). Learning does not only happen in formal settings, "every

social setting is a text where people learn important lessons about themselves in

relation to others" (Hayes, 2000, p. 25). In short, my beliefs are "ontologically

relativist and epistemologically subjectivist" (Mills, Bonner & Francis, 2006, p.

6). (Vickers-Manzin, 2010, p. 7)

We offer our worldviews to illustrate the similarities in each of our understandings of the world and situate ourselves as researchers within the research paradigm. It provides insight into our choices for the research question and methodology. The constructivist paradigm aligns with each of our worldviews in its similarity in beliefs related to the relativity of learning and the subjectivity of knowledge. A constructivist perspective emphasizes the importance of learners' perspective (Magro, 2001). Learners are actively involved in a process of meaning and knowledge construction rather than passively receiving information. This active process fosters critical thinking and creates motivated and independent learners (Gray, 1997). Our constructivist approach is captured in the following quote from a transcription on September 26, 2011:

> *JEN: I see us pulling everything forward from all the courses to here and asking ourselves the question—and you just said it really nice—what is this course offering that is new, that can help us in our own journey individually and in our collaborative study?*

We agree that "while there may be some universals of growth when we come to examine the individual life things are rarely that straightforward" (Smith, 1999, "Stages," para. 10). We agree with Chinn and Kramer (2008) who state: "specific circumstances and contests affect the development of knowledge" (p. 66). Thus, we embrace a critical view of KT to understand the dilemma with KT within our current professional context.

Critical View

Taking a critical view encourages us to examine the notion that cultural, educational, and workplace milieus are not neutral. The critical orientation argues that the

contexts that shape our learning, inform our knowledge base, and ultimately develop the lens through which we see the world are motivated by power. Power is concentrated within the dominant culture and is used to maintain its influential position (Kilgore, 2001; Nesbit, 1998; Pratt, 1998). The distorting abuse of power within the dominant paradigm is oppressive in limiting people's understanding of themselves and their world (Kilgore 2001; Plumb & Welton, 2001; Pratt, 1998; Tisdell, 1998). Further oppression is found in relations of power that have come to represent the status quo or hegemony and become unquestioningly accepted as norms and values (Kilgore 2001; Nesbit, 1998; Plumb & Welton, 2001; Pratt, 1998; Tisdell, 2001). Brookfield (2005) describes hegemony as repressive tolerance, "masking its repression behind the façade of open, even-handedness" (p. 4). Given the multiple factors that seem to influence KT, reducing it to a dominant model or paradigm discounts individual variations in experience and meaning-making related to practice change in any particular context (Wallin, 2009).

We build on Bucknall and Rycroft-Malone's (2010) organization of the challenges of KT and organize our concerns through a critical lens that includes the evidence, the context, the individual clinician, and continuing professional development (CPD).

The Evidence

Bucknall and Rycroft-Malone (2010) identify the evidence or information that needs to be implemented as one of the challenges of KT. First, the critical view of the KT issue argues the powerful influence of the dominant hegemony, results in increased value being placed on certain kinds of knowledge, ways of knowing, structures, and roles that are based on the maintenance of power relations rather than democracy, justice, and equality (Doane & Varcoe, 2008; Lange, 2006; & Rycroft-Malone, 2006). Therefore, the

implementation of evidence centred on human experience and aimed at examining and critiquing the complex realities faced by nurses is strongly argued as critical to current nursing practice.

The Clinician

Bucknall & Rycroft-Malone (2010) discuss the individual clinicians themselves and the circumstances of the client as necessary considerations influencing the translation of knowledge to practice. The literature specifies common individual barriers to KT such as: lack of time, lack of access (both general and timely) to current research literature, lack of resources, lack of relevance and incentive to apply evidence to practice, and resistance to change (Canadian Nurses' Association [CNA], 2004; Dobbins, Ciliska, Estabrooks, & Hayword, 2005; Robinson, Driedger, Elliott & Eyles, 2006). Other barriers to EBP include: excessive literature to review, limited critical appraisal skills, lack of decision-making authority to implement research results, and work environments that do not support research utilization (CNA, 2004; Dobbins et al., 2005). The EBP movement oversimplifies the complexity of contextual influences and assumes clinicians are "either too busy or not skilled enough to interpret this knowledge for themselves" (Rycroft-Malone, 2006, p. 97). More recently it has been argued that careful consideration needs to be given to "blaming" individuals for lack of KT as it decontextualizes individual experiences. Also, Scott et al. (2008) found that nurses view evidence as someone else's job to give to them and distrust the research evidence as it is not what they experience in practice. They also point out that nurses who feel unsafe in their context will retreat to a *zone of safety* in which they will "do what they are told, focus on routines, defer to the authority of others, and are unwilling to try something new" (Scott et al., p. 355), thus KT is diminished. We argue resources such as guidelines

are important to KT but should not be at the expense of deeper issues such as relationships and ways of working (McCormack et al., 2002).

The literature notes that client involvement is essential in the success of implementation of evidence into practice, yet there is a lack of consistency in assembling evidences to include the client's values and preference (Bucknall & Rycroft-Malone, 2010). As nurse educators, our "clients" are staff attending continuing professional development (CPD) activities. The adult teaching learning literature parallels health care recommendation of including patients by embracing the necessity of the participation of learners in constructing learning activities.

The Context

Bucknall and Rycroft-Malone (2010) argue that an organization's structure and function contribute to the challenges of KT, and we refer to this as the context. Context has often been cited as a significant factor in shaping knowledge translation, yet there is limited KT literature that has examined its influence in great detail (Scott et al., 2008). We describe two challenges of KT as it relates to context: (a) differing contexts of the practitioners and researchers and (b) the focus on outcomes rather than the process of translation.

First, the detached contexts in which research is created narrowly defines what is considered *best* research and leads to research results and best practice guidelines that are context-stripped and not relevant to the context-rich practice settings (Baumbusch et al., 2008). The focus on producing research has contributed to a separation of communities. That is, the communities that are doing the research are separated from the communities where the research is being implemented (Bucknall & Rycroft-Malone, 2010). For example, the KTA framework separates these two communities by referencing

researchers and knowledge users as separate individuals. Researchers and knowledge users being situated in different contexts complicates the understanding of the complexity of KT. What is often overlooked is the heterogeneity of the context and the support required for knowledge translation in different settings, resulting in context stripped guidelines and recommendations (Kerner, 2006). As practitioner- researchers, we are concerned that the gap in research producer and user communities may be contributing to the KT dilemma.

Second, the focus in the KT literature has been on outcomes rather than the process of translating the research to practice (Kitson & Phil, 2009). Much of the theoretical analysis and practical applications of KT are dominated by the mechanical language of transfer (Gibbons, 2008). However, "generic knowledge is seldom taken directly off the shelf and applied without some sort of vetting or tailoring to the local context" (Graham et al., 2006, p. 20). Rycroft-Malone (2006) suggests that evidence is contextually bound and individually determined, therefore "there is no such thing as *the* evidence" (p. 102). We agree and propose that knowledge may change or evolve in the process of being transferred. The focus on outcomes has contributed to the lack of understanding of processes which foster KT. This distinction in the context of nursing practice shifts the focus from understanding knowledge translation process to an emphasis on adherence to guidelines (Natsch & Van der Meery, 2003).

Continuing Professional Development

Continuing professional development (CPD) activities are common vehicles to communicate and facilitate knowledge translation (Davis, 2006; Gleeson, 2010; Graham et al., 2006; Mowder-Tinney, 2009). CPD is a requirement of the College of Nurses of

Ontario for Registered Nurses to maintain their annual (re)licensure requirements. Thus, as nurse educators CPD is a significant part of our professional role. Marsick and Watkins (2001) identify that CPD activities are often "limited to occasional, brief in-service sessions" (p. 26) demonstrating traditional didactic approaches are still prevalent. We are concerned that traditional methods that are characterized by "sit and get" approaches to CPD are deficient as a conduit to KT. This is often manifested as nurses attending training where they sit all day and listen and/or watch PowerPoint presentations, and/or have access to computerized databases, journals, and the Internet.

Although the academic literature suggests that "now [the] focus [is] more on contextualized and situated learning" (Inman & Vernon, 1997, p. 76), our experience is that our professional culture to CPD emphasizes mastery of skills and direct application of knowledge. This approach perpetuates dissemination of information where learners are largely passive, and outside/expert "evidence" for so-called true and unbiased knowledge is promoted (Barwick, Peters, & Boydell, 2009; Kitson & Phil, 2009; Milton, 2007). Therefore, staff learn from an outside source rather than their own knowledge and expertise. In this way, many health care organizations' culture related to knowledge and learning is rooted in EBP, a hierarchical and objective view of knowledge, and a quantitative view of learning (Milton, 2007). We have concerns about the type of incidental and informal learning that the *banking method* to CPD encourages in learners (Baumgartner, 2001; Browne et al., 2009). That is, "learning grows out of everyday encounters while working and living in a given context" (Marsick & Watkins, 2001, p. 29). The result is that the relational, connected, and situational variables that influence learning process are not considered, employed, or utilized.

Furthermore, staff has little control over what or how they learn. Compounding the issue is that many CPD events have little to no follow-up to support the interpretation and implementation of research to practice (Marsick & Watkins, 2001). We both can relate to this design in our own CPD sessions. In a previous paper, Jen writes:

> *As a nurse educator I am responsible for providing ongoing education to staff via consultation and continuing professional development presentations. Although the specific content changes, the general template stays the same. It centers on education related to research evidence and how to implement this evidence into practice to result in better outcomes for families. Although I would argue sessions are interactive and designed to engage participants, a general design template can be described. The general format is as follows: the delivery of key content, followed by an opportunity to work in small groups with peers to apply new knowledge to case scenarios, followed by an open group discussion. The specific content chosen for CPD is decided upon by staff and management. That is, at times staff identified topic areas for further CPD while other times management has identified topic areas for further CPD. At times, I have proposed additional CPD sessions for staff. This requires a formal written proposal and approval by the management team. Success is often dependent on the ability of the proposal to prove effective use of time and dollars. Effective is usually defined by the amount of "good" scientific evidence that supports the proposed intervention. The argument is by "teaching" PHNs to apply these interventions we are maximizing efficient use of time with clients towards better outcomes for families.* (Vickers-Manzin, 2010, p. 8)

We agree with Grol and Grimshaw (2003) in that we "should not cling to [CPD] as the universal implementation strategy, especially when traditional didactic education has not shown much potential in accomplishing change" (as cited in Wallin, 2009, p. 579). Consistently applying the same model to CPD implies that there is one right way to design learning to promote KT. However, it is widely acknowledged that as a group "adult learners [are] heterogeneous in terms of learning, cognitive styles and mental abilities" (MacKeracher, 2004, p. 82). As people have diverse learning characteristics, it seems that understanding different theories of learning is essential in KT (Mowder-Tinney, 2009, p. 17). Yet, the complexity of what and how CPD activities are to be employed leaves room for much interpretation and misunderstanding (Wallin, 2009). For example, studies have demonstrated some mixed effectiveness that include but are not limited to interactive small group meetings, educational outreach visits, and multiprofessional collaboration (Wallin, 2009). However, these three interventions are loaded with meaning and interpretation depending on the individual, group, or organization's philosophical beliefs. The idea of restricting to one model or approach limits all the possibilities of design, facilitation, and development of learning experiences to support knowledge translation amongst diverse clinicians. Despite the considerable and growing interest in the KT field we suggest it is not a novel query. The adult learning literature in the field of education has a long history of exploring how adults learn best. It is widely acknowledged in the KT and adult learning literature that building capacity for KT goes beyond simple passive dissemination techniques (Cooper, Levin, & Campbell, 2009; Ring, Malcom, Coull, Murphy-Black, & Watterson, 2005).

We believe that the pendulum has swung towards EBP to decontextualize and deprioritize other ways of knowing. Taber, Howard, and Watson (2010) advocate for the the use of a critically reflexive lens. Perkins (2009) suggests that everything we learn in life has a "hidden aspect, dimensions and layers and perspectives not apparent on the surface" (p.134). We have taken a critical view of the KT conundrum in order to uncover and understand how the hidden aspects affect our KT. Perkins suggests two questions to ask: "What do you see going on? What do you see that makes you think so?" (p. 152)

Our awareness of the multiple influences of KT has created a dilemma. We are aware of our own practices that serve to promote the dominant approach to dealing with KT despite our questioning of its effectiveness.

Disorienting Dilemma

A disorienting dilemma is described by Cranton (2002) as an event that exposes an individual's "limiting or distorted view" (p. 64). The limiting view is the discrepancy between what is "assumed to be true and what has just been experienced" (Cranton, 2002, p. 66). Prior to the commencement of our graduate studies, we held a limiting view of the KT issue. Our experiences during our graduate journey revealed a tension. We became aware that we were acting in a way that was misaligned with our values and core beliefs. Many authors make reference to a disorienting dilemma, vulnerability, anxiety, or a living contradiction as being key to development (Brown, 2011; Mezirow, 1998; Whitehead, 1989). According to Whitehead, we become living contradictions when we discover that we are not living according to our values (Delong et al., 2005). It was this awareness of living outside of our values that contributed to our disorienting dilemma. In

chapter 3, we share our values to highlight our living contradiction and our desire to act in alignment with them.

Our dilemma stems from our practice of designing and implementing CPD from traditional dominant approaches while at the same time we were creating a learning culture that seemed to promote KT with each other. The contradiction was that our discovery and process for fostering our own KT was not what we were practicing as nurse educators. In other words, we were having difficulty walking the talk. The experience of being wrong motivated our resolve to do something about it (McNiff, 2002). We are concerned with the alignment of our epistemological understandings and ontological actions and seek to answer: Do I know what I do? Do I do what I know? Byrne (2001) highlights the difference between epistemology and ontology: "Epistemology assumes a separation between knowing and being. A holistic philosophy that knowledge cannot be dissected from life experience is known as ontology" (p. 209). We provide each of our reflective journal excerpts to demonstrate our lived experience of first realizing our disorienting dilemma. The excerpt from Jan's personal journal on March 22, 2011 is informed by conversations with Jen and by related literature. Jan expresses her awareness of her disorienting dilemma:

> *It is through open conversations with my critical friend (Jen) that I have the greatest insights and am able to voice my dilemma, or living contradiction related to our professional culture. I told her that I don't buy into the fact that my education sessions on best practice guidelines are the one best way to help with KT—it doesn't change anybody. No matter how hard I try to create PD to foster adult learning, I feel as if I am just touting the line, supporting hegemonic*

practices, rather than practicing in a way that feels right—feels genuine. I feel

that by expressing my frustration and tensions with Jen, I was able to explore and

reflect more deeply and enable me to articulate my dilemma: I know that how I

was providing traditional "canned" PD approaches (to others) is not how I learn

best, yet, this is how I practice. I had separated myself; my views and

philosophies from my work in that I became a conduit of expert knowledge—a cog

in the bureaucratic machine.

In her academic writing on April 8, 2011, Jen writes:

It was not long before I came to the realization that I had created the perceptual

error of "self-fulfilling prophecy." I was only seeing myself as the educator I

espoused to be in my worldview and educational philosophy (Greenwood, 1993).

In fact, my theory-in-use was not in alignment with my espoused theory

(Greenwood, 1993). This awareness triggered a sense of malaise and alienation. I

was suffering from "imposter syndrome" which resulted in a shifting of my life

position, which shifted to "I am not okay, you are okay." This life position left me

feeling helpless. My internal questioning was: why was I not being successful with

these students to foster their learning in the context of a safe learning

environment? (Vickers-Manzin, 2011a, p. 9)

By becoming aware of our disorienting dilemma—we questioned our contribution

to the KT issue—we relate to Langer's (1989) concept of mindlessness. Mindlessness

involves uncritical assimilation of knowing and "holds the world still and prevents an

awareness things could be otherwise" (Langer, 1989, p. 137). Langer further describes

mindless activities involving individuals who rely on distinctions drawn in the past and

overly depend on structures of situations representative of the underlying meaning without making new distinctions. Whitehead (1989) suggests developing a living educational theory requires the ability to examine your own practice:

> to see (one) self as a living contradiction, holding educational values whilst at the same time negating them … by identifying the discrepancies between our espoused values and our enacted values we create tension which—moves us to imagine alternative ways of improving our situation. (p. 4)

Our tension, revealed as a disorienting dilemma, has prompted us to consider what is happening in our relationship that has contributed to our process of KT. Further, we query: how can we translate this knowledge to our practice as nurse educators?

Imagining Ways Forward

Whitehead and McNiff (2006) advocate for the development of living educational theory in every educator. Living educational theories use a living form of logic which aligns with our worldview. "These theories are living in the sense that they are our theories of practice, generated from within our living practices, our present best thinking that incorporates yesterday into today, and which holds tomorrow already within itself" (Whitehead & McNiff, 2006, p. 2). In a living-theory approach to action research, "you need to imagine ways in which you might begin taking action" (McNiff, 2002, p. 17). This section articulates our imagined process of KT. For us, imagining a way forward included a collaborative reflexive inquiry to make clear our assumptions about our living educational theory. We used a collaborative reflective approach to create a concept map to capture our assumptions of the elements required in our KT process. Creating our concept map to "imagine ways forward" involved aesthetic knowing and is a necessary part of our

act, reflect, and revise research process. We created our concept map on January 14 and 15 to clearly explicate our assumptions. Our concept map is illustrated in Figure 2.

Key Concepts

Concept mapping is a diagrammatical way to organize our thoughts and show the relationship among concepts (Novak & Gowin, 2002). It externalizes concepts, improves our thinking related to key ideas, and has educative value as it reveals new meanings and relationships between concepts (Novak & Gowin, 2002, p. 17). We used this activity to help us begin to learn about our KT process. We identified key concepts that emerged during our reflexive concept mapping activity. Central components include knowledge translation, multiple ways of knowing, context, collaboration, discourse, culture of inquiry core reflection, and experience. Other linked concepts include choice, critique, vulnerability, ontology, authenticity, transformative learning, narratives, experience, and "LifeMapping." We used action, reflection, and revision cycles and triangulated our data to determine if our imagined concepts are part of our KT process. In chapter 4, we expand the description and discuss how our assumptions interconnect with the key concepts and relevant literature. We will employ living theory action research methodology to discover our process of KT so to find out how we can improve our practice of KT and contribute to the professional knowledge base.
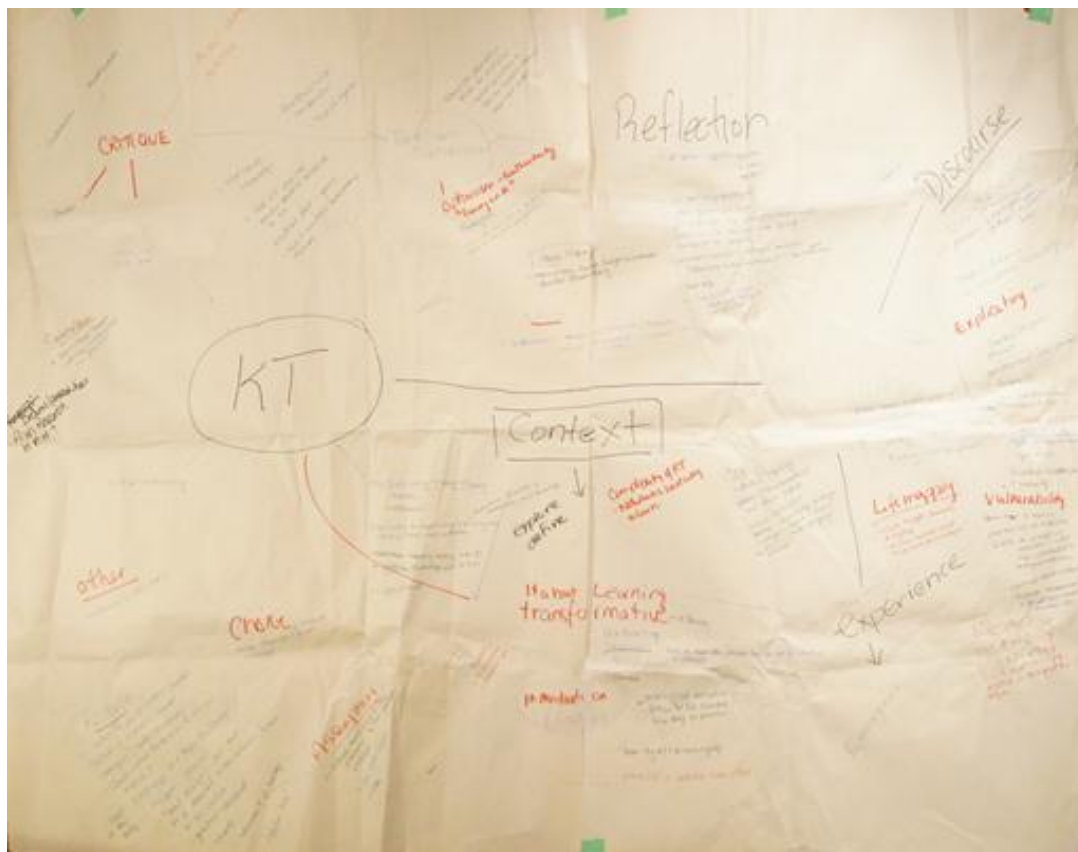
Figure 2. Concept map of reflecting and imagining a way forward.

Summary of the Chapter

In this chapter, we presented our concerns of KT related to the philosophical inconsistency between what is espoused and what is done in practice. We reflected on our joint graduate experience in fostering our awareness of the *power* issues of the current approach to KT. Also, we considered the differing philosophical orientations toward knowledge as a contributor to the KT conundrum. In order to contextualize our concern related to our role as nurse educators, we included an overview of what is espoused in *the knowledge of the nursing discipline*. Our quandary in working in the current professional culture which is disparate from our own philosophical orientation in uncovered. This disparity is an example of how we are negating our educational values in practice, revealing ourselves as living contradictions. We are interested in aligning our practice with our values as we believe this is central to our process of KT. We use the next chapter to reveal our methodological assumptions and limitations and discuss our methods within our action research methodology. As a result of our concept mapping activity, we have modified our questions as follows: (a) What is our living educational theory of knowledge translation? (b) How can we contribute to a culture of inquiry to influence others?

CHAPTER THREE: METHODS

This chapter describes our methodological assumptions and the limitations of our methodology. Next we describe the specific methods we employ within our living action research methodology. We describe our process for co-writing our collaborative MRP in order to make clear our equal contributions. We discuss the gathering, sorting, and analysis of our data. Next, we make clear our intentions to validate our claims. Finally we summarize the chapter and discuss next steps.

Methodological Assumptions and Limitations

It was necessary for us to articulate our methodology in chapter 1 in order to guide the reader and increase the comprehensibility of our unique research story. We use this section to clearly describe our methodological assumptions and limitations. We make the assumption that a qualitative research design is best suited to our research query. Living theory action research fits well with our research question as well as our desire to shift the KT conundrum from an epistemological focus to an ontological one. It involves a shift from analytical thinking and methodology to a "holistic epistemology" (Torres & Reyes, 2011, p. 67). As in social epistemology, we seek not to measure but rather to understand, represent, or explain a complex social phenomenon: our living educational theory of KT (Goldman, 2010; Pyett, 2003). That is, we seek to describe and understand our KT process, and reject the notion that there are any universal or *objective* norms of rationality that can appropriately represent a grand narrative of KT (Goldman, 2010). Byrne (2001) states that researchers must choose a philosophical framework that is congruent with their own beliefs about reality to ensure a strong research design. We feel that qualitative research allows the flexibility to explore our process of KT from multiple

lenses. We agree with Taber et al. (2010) that "our subjectivities as researchers construct lenses that continually inform our research processes, including the analysis and interpretation of data … becom[ing] powerful tools in collaborative qualitative research" (p. 39). More specifically, the living-theory action research approach supports *we* as the focus of our research (McNiff & Whitehead, 2011; Whitehead & McNiff, 2006). Like other action researchers, we believe by acknowledging our agency and valuing our knowledge and experiences, we increase the chances that our research results will be highly relevant and responsive to our needs and growth, as well as to other communities and society at large (Torres & Reyes, 2011).

Also, qualitative and action researchers are often called upon to defend the accuracy or validity of their claims or assertions and the process that action researchers use to defend their coming to know. The concept of validity originates in the positivist tradition which is difficult to translate to the qualitative research paradigm. Too often, qualitative research inaccuracies occur when the rules and criteria that apply to quantitative research are used to judge qualitative research (Byrne, 2001). However, methods for testing objective claims to knowledge are held by most research communities as the only legitimate forms (Whitehead & McNiff, 2006). We acknowledge the two major limitations of our approach: (a) our findings are not generalizable and (b) the challenges of validating our unique approach. Given our philosophical orientations and our unique focus of our own dilemma, we have no intention of generalizing our findings. Rather, it is our hope that our living educational theory contributes to the improvement of others once disseminated (Pinnegar & Hamilton, 2009).

Co-writing

As there are no clear criteria set out by Brock University for meeting the requirements of a collaborative major research paper, we referenced relevant literature to make clear our collaborative and equal contributions. We agree with Heron and Reason's (2001) description of fundamental principles for co-inquiries as:

> a co-operative relationship, so that all those involved work together as co-researchers and as co-subjects. Everyone is involved in the design and management of the inquiry; everyone gets into the experience and action that is being explored; everyone is involved in making sense and drawing conclusions; thus everyone involved can take initiative and exert influence on the process. (p. 170)

These principles support the notions of freedom from coercion and equality of access to information. Throughout our inquiry, we equally contributed both individually and jointly. At the onset we jointly identified themes and researched independently. Individually, we completed annotated bibliographies to jointly review and identify relevant literature. At times we independently wrote the same segments and jointly reviewed to synthesize ideas to one cohesive end product. At times, we wrote together, and participated fully and equally in our joint writing process. We made clear our joint and individual contributions by using Google Docs. Google Docs provided a space for us to store our shared documents, edit and write together, as well as share with our academic advisor. In this way, we attempt to link to the fundamental principles espoused by Kasl and York (2002) of each inquirer participating fully in all decisions in our research and writing.

Gathering, Sorting, and Storing Data

Through the examination of our graduate journey we use both a backward reflexive and a prospective process to discover of our own story of KT. Retrospectively

we explored our reflections—both individual and collaborative—academic writing, and transcribed dialogues. Prospectively we look for "episodes of practice that show the developing educational influence" McNiff & Whitehead, 2011, p. 133) within our collaborative inquiry of how we improved our own KT and influenced others. Our data sources included journal entries, photographs as artefacts, our academic writing, as well as transcribed video and audio recordings of our dialogues (Appendix A).

We used our journals for reflection. Our journal entries took on several different types for different purposes and increased in frequency as our research progressed. At times our recordings were personal, whereby our accounts were recorded in an unencumbered way. Other entries resemble a response journal in which we have used questions as a guide to prompt our reflections. Many times our journal entries were reflective and pre-reflective in order to thoughtfully consider our personal experiences in advance of and after an event (Delong et al., 2005). We invite the reader to engage with the artifacts such as our concept map, academic writing, and pictures that demonstrate our themes and our process.

The data collection process in our approach uncovered our feelings, views, beliefs, and perspectives related to our process of KT (Creswell, 2008). We employed "dialectical and active" grounded theory methods for our data collection and analysis (Ghezelijeh & Emami, 2009, p. 21). The steps for data analysis included the use of line-by-line coding for immersion in the data to consider what was happening in each bit of data; the use of preliminary categories to promote close attention to what was happening in the data and portray our experiences; and finally a selective coding phase that we employed (Charmaz, 2006, 2008). The selective coding phase involved comparing data

with data to "sort, synthesize, integrate and organize large amounts of data" (Ghezeljeh & Emami, 2009, p. 19). Although these steps have been discussed linearly, this is a back and forth process of constant comparative analysis that involves re-engaging with ourselves for additional data collection as indicated by the data. The analysis of our data included triangulation to identify our themes involved in our KT process. Triangulation is defined to be "a validity procedure where researchers search for convergence among multiple and different sources of information to form themes or categories in a study" (Creswell & Miller, 2000, p. 126). The themes have been used to create our living educational theory of KT.

According to McNiff and Whitehead (2011), subjective claims require a different form of validation and should show authenticity, validity, and legitimacy for the account. In addition to the triangulation of data, we establish the validity of our claim to knowledge by demonstrating personal validity and social validity.

Personal Validation

We believe that it is our personal responsibility that our explanations be as truthful as possible to the claims we make and share. Whitehead (1989) links personal validation to the work of Polanyi, who values understanding the world from an individual's own point of view. We have offered our worldview to make explicit our point of view. In other words, it is the individual's personal responsibility for searching as well as telling the "truth." We believe the findings of our inquiry are not an absolute truth, but that in our inquiry we have some ideas of being truthful and that our explanations are as valid as possible.

Identifying our standards of judgment. Particularly significant is the central focus that one's own values play in Whitehead's living theory methodology. We use our values

as standards of judgment or indicators to determine whether our practice is improving

(McNiff, 2002). By standards we refer to Stenhouse's definition: "criteria which lie

behind consistent patterns of judgment of the quality and value of the work" (as cited in

Delong & Whitehead, 2011, p. 9). By consistent, we mean that we will consistently

employ our standards to judge the consistency between our values and actions. We

believe we are improving when our values and actions are in alignment.

We were surprised at the difficulty and the time invested in the process of

articulating values. It involved identifying our values, finding evidence in practice of the

embodiment of our values, and validating our values by employing critical friends and

validation groups (Whitehead & McNiff, 2006). Our individual processes of coming to

identify our values are previously documented in our academic writing.

Jan's values as living standards of judgement are captured in the quote below

from her previous academic writing:

> *First, I believe that knowing myself is as important to being a good educator as*
>
> *knowing the subject and about pedagogy. It is through my lived experiences that*
>
> *will enhance self-knowledge which is necessary to make authentic personal and*
>
> *professional decisions. I need to know who I am and then act on it. In other*
>
> *words, to be authentic and genuine so that I make decisions based on my beliefs*
>
> *and will less likely to make choices based on the views and expectations of others.*
>
> *Second, I believe that democratic practices foster respect, autonomy, and*
>
> *empowerment when I am with a client, teaching other healthcare professionals,*
>
> *or at home. The memories and images of my favourite teacher (and other role*
>
> *models) continue to inspire me. My value for democracy and social justice allows*

me to appreciate others' autonomy and voice. I believe that clients are experts in

their own health, students are experts in their own learning and my colleagues

are experts in their own practice.

Third, I value taking the other person's point of view or looking through

the lens of the other in any situation. I aim to reflect-in-action (especially when I

feel a tension) to move to a space that fosters collaboration and trust.

Fourth, I aspire to be nurturing, caring and kind with my family, my

clients, students and colleagues. Relationships are everything to me. I believe that

if you see the best in someone they will give you their best. I aim to practice

humility and gratitude; use humour and dialogue appropriately as a way to help

people learn; say kind words and listen often.

Fifth, I value life-long learning, I feel "enlivened" by discussion, sharing

ideas, and seek more opportunities to learn. I have come to realize the growth

and development of an individual requires the focus of learning of self rather than

of others.

Finally, I have the courage to explore my assumptions and bring "uneasy"

issues into the foreground which is necessary to further grow and develop:

cognitively, emotionally, physically and spiritually. (Johnston, 2011d, p. 23)

Jen's values as living standards of judgement are captured in the quote below from her

previous academic writing:

*I believe that **optimism and genuine kindness** is a powerful influence on the self*

and the other. In my mind, these values align with Zander and Zander's (2000)

idea of giving an A. It has the potential for creating a space that allows for the

unexpected potential of the other. It embraces the conviction that "much more is possible than people ordinarily think" (Zander & Zander, 2000, p. 2). The value of optimism embodies the endless possibilities of the other and the situation would involve finding ways to solve issues and valuing the input of others by listening.

*.. As I articulated in my worldview I believe that .all life experiences are learning experiences.). However, for me **life-long learning** is a commitment to learning from life experience and continuing to create and seek new knowledge that supports this endeavour. For me, life-long learning is a purposeful act and requires the seeking and provision of honest, critical feedback that challenges thinking and practice. I argue that feedback then needs to be applied as a way to continually improve practice. I agree that "our practices will take a good deal more than three minutes to master" (Zander & Zander, 2000, p. 5). ... I embrace the idea that I am a fallible knower and embrace the need for inclusivity and openness which links to my value of **relationships**. I agree that I need the perception of others to broaden my perspective, and "critically [examine] evidence, arguments and alternative points of view" for life-long learning (Mezirow, 1997, p. 6). My experience has been that multiple perceptions of reality have the potential to break our mental models and prevent leaps of abstractions and generalizations we often make.*

*.. I value **democracy and social justice**. I believe in the rights of all people to speak and for there to be equal opportunity for their voices to be heard. The criteria for the embodiment of these values include opportunity for participation by all members. I believe a safe environment and a trusting*

atmosphere are enablers of democracy. Trust has been identified by Katz, Earl,

and Jaafar (2009) as "a key condition of productive relationships" (p. 12). These

authors expand and say "trust does not build itself" (p. 40) it includes "respect

for each others' dignity and ideas, belief in other's competence, and a confidence

in each other's integrity" (p. 40). I believe that contributing to a trusting and safe

environment requires the embodiment of the values of kindness, optimism,

relationships and life-long learning.

The value of social justice relates to "improving the social order and …

the learning [that happens in] social formations" (Delong & Whithead, 2011, p.

3). I believe despite the existence of structures that are hierarchical that roles and

responsibilities are equally important. Referring back to Zander and Zander's

realm of possibility by giving an A has the potential to contribute to the alignment

of "teacher with student, manager with employee [and so on]" (p. 35) creating a

team approach. I offer this statement not to deny the power of the dominant

hegemony and "the world of measurement" that we live in (Zander & Zander,

2000, p. 17), rather to suggest that we have the capacity to become aware of

social forces and can choose to act in opposition to them. (Vickers-Manzin,

2011b, p. 21)

Articulating our personal values demonstrated our ethical way of knowing as a

guide to our practice, what we selected as important and where our loyalties were placed

(Chinn & Kramer, 2008, p. 6). We used our values as standards or criteria while

exploring our data. This process helped us understand the relationship between the

embodiment of our values within our KT process.

Social Validation

Since the purpose of qualitative research is to describe or understand the phenomena of interest from the participants' eyes, the participants are the only ones who can legitimately judge the credibility of the results. However, there is a general consensus that qualitative inquirers need to demonstrate that their studies are credible (Creswell & Miller, 2000). We demonstrate the credibility of our inquiry by ensuring our methods transparent and subjecting our representations to our own critique, as well as that of others (Whitehead & McNiff, 2006). Whitehead (2009) draws on a modification of Hubermas' four formal criteria to encourage meaning and understanding when constructing a living educational theory. The criteria to strengthen social validation include: the comprehensibility, truthfulness, rightness and authenticity. Whitehead (2009) explains the criteria:

Within comprehensibility I include the logic of the explanation as a mode of thought that is appropriate for comprehending the real as rationale (Marcuse, 1964, p. 105). Within truthfulness I include the evidence for justifying the assertions I make in my claims to knowledge. Within rightness I include an awareness of the normative assumptions I am making in the values that inform my claims to knowledge. Within authenticity I include the evidence of interaction over time that I am truly committed to living the values I explicitly espouse. (p. 108)

Critical Friends

Critical friends are a necessity of action research and "offer both support and critique in an open, honest appraisal" (MacBeath, as cited in Katz et al., 2009) "to question assumptions, validate claims"(Delong et al., 2005, p. 16), "probe for justification and evidence to support perceptions and help re-formulate interpretations" (Katz et al., 2009, pp. 90-91). In the same way that we can monitor our own actions, we can invite the other to show data that the other has changed, demonstrating the response of the quality of each other's influence. We mutually committed to dedicating time, as critical friends to each other, to address our improvement question. We provide evidence of our critical friendship in chapter 4.

Validation Group

A validation group is a group of peers that will provide feedback to help strengthen the validity of our claims by listening to our "progress reports" and scrutinize our data (McNiff, 2002). We asked our academic advisor, a former professor and colleagues to commit the time, as critical friends. We approached these colleagues because of their experience with employing unorthodox research approaches.

During the research period, we had three exchanges with our validation group through email and Skype. We also submitted our first draft to our first and second readers with a request that they help [us] to strengthen the comprehensibility, truthfulness, rightness, and authenticity of our research narrative (Whitehead, 2009, p. 12; McNiff, 2006). We include our tool in Appendix B to strengthen the social validity of our inquiry.

Ethical Consideration

The only ethical issues relate to privacy and confidentiality of the persons referred to during personal communications. Names are not used without permission at any time in the final paper so that people described remain confidential.

Summary of the Chapter

According to McNiff and Whitehead (2011), generating evidence is a rigorous process. It involves stating a claim to knowledge; establishing criteria and standards of judgement; selecting data; and generating evidence. Within the action, reflection, revision cycles are the unique methods we have employed in an attempt to gather and triangulate data to validate our claims to know. Much like journalism, the aim is to gather data to generate evidence–the building up of stories and use of tools to maintain credibility is a kind of narrative inquiry (Whitehead & McNiff, 2006). In the next chapter we present our analysis of our findings. We also make relevant links to the literature to explicate the meanings we ascribe to our themes and make clear how each theme informs our research questions. Finally, in chapter 5 we present our living educational theory.

CHAPTER FOUR: EVIDENCE OF OUR PROCESS OF KNOWLEDGE TRANSFER

In this chapter, we present our themes and describe how each theme informs our research questions: What is our living educational theory of knowledge translation? How can we contribute to a culture of inquiry to influence others? These themes are a result of reviewing our extensive data sources (see Appendix B). As described in chapter 3, the data were coded using constant comparative analysis. As a result of this process, six main themes were found, each containing several sub-themes. We use these themes as headings to discuss our findings. In order to explicate the meaning we attach to our codes we make links to relevant literature under each theme. By consensus, we included the best examples of data to illustrate the themes to capture the essence of our research story. Although, the selected data may represent one author's voice, the themes were found equally throughout the data from both authors. Finally, we describe how the themes further inform our research question and describe key insights as they relate to our imagined ways forward. We are purposeful in our use of the word "further" as we have embedded data as evidence throughout our research story. In chapter 5 we synthesize our research story and describe how these concepts come together as our living educational theory.

Multiple Ways of Knowing

The theme "multiple ways of knowing" was identified across many data sources through triangulation. Our experience revealed that our knowledge translation goes beyond translating empirical ways of knowing to create a more holistic understanding which included translating aesthetic, emancipatory, ethical, and personal ways of knowing, as described by Chinn and Kramer (2008).

A dialogue from building our concept map on January 14, 2012 demonstrates this theme:

JAN: Expand more.

JEN: So, for example one of my key phrases that I quote was, "Reflexivity birthed responsiveness." So, I was interested in how the reflexive process changed me. So, that's again transformative learning. I mean, that's a way of translating knowledge using multiple ways of knowing. So, that's not translating knowledge necessarily from literature it's translating aesthetic[ph] ways of knowing.

JAN: Yes.

JEN: So, maybe that's what we're talking about, right. So, we talked about multiple ways of knowing. So, that means we're talking about translating multiple evidences not just literature. Translating—we've talked about translating our beliefs into practice, right, to be more authentic. So, that's translating knowledge it's just where the knowledge comes from that's being translated. So, typically knowledge translation has been applied to getting knowledge from the literature into practice. But what about self-knowledge, translating that into practice. Because I would argue that there is a gap even between self-knowledge and practice.

JAN: Yes, for sure...

Also, we share a personal journal excerpt and a reflective artifact from academic writing to further illustrate the theme multiple ways of knowing. Jen's personal journal entry on May 24, 2011 demonstrates the theme of multiple ways of knowing to guide practice:

Ahhhhh!! I am stressed! What is bothering me, my head is full of information because I am madly trying to read everything and am overwhelmed. I think the overwhelming feeling is because the reading is delaying me from journaling my story, which is a necessary part of my research. I believe the more I write and explore the more I will discover. Yet because the path ahead is so unclear I feel I must refer to the literature for guidance. But what literature specifically? There is so much to explore. I need to bring myself back to some key readings that ground me. I need that framework for a focus—otherwise I find myself going off on tangents. I need to go back to my "clear and discernible" focus—"how to improve my practice"...

These data demonstrate one example of making use of empirical ways of knowing in seeking guidance from the literature; emancipatory knowing in questioning what is wrong with this picture; aesthetic knowing in seeking to discover what Jen's feelings *mean*; and personal of knowing in exploring: do I know what I do? Later in the reflection Jen demonstrates an ethical way of knowing in her reflection by querying if her approach to learning is *right*: "my dialectic learning style perhaps serves my own needs a little too much, as it may silence others. … I recognize writing does the same thing for me." The reflection ends with "things to do" and "plan to embody" as a way to move forward.

In a reflective artifact March 28, 2011, Jan demonstrates movement to action using multiple ways of knowing:

The Critical Incident Cookbook represents my journaled exploration of my values, beliefs, and assumptions. ... Themes of being silenced and finding voice are throughout the personal narratives that explain the "recipes."

Pulling out the Punch

Ingredients:

1 confusing meeting

1 request for human resources

3 decision makers

1 strong email

1 means to an end

Take 1 unripened request. Sift and strain for 40 minutes. Blanch and remove alternatives. Stew in the feelings of past experiences. Serve searing e-mail.

Reflecting on this [meeting]... I may have been asking for too much, given the corporate culture and structure. My communication was not as clear as I would have liked it to be. I sent an email from the safety of my desk, to clarify and restate my request. However, it is revealed in the post mortem that there may have been tones which may have reflected my frustration and be interpreted as "harsh"... I will anticipate the experience, notice my feelings and reflect- in – action to enhance communications. As well, I will practice the 24 hour rule prior to sending out an email. (Johnston, 2011b, p. 3)

The recipe as data demonstrates our theme using a multiple way of knowing. Personal ways of knowing are evident in the use of a personal experience; power issues demonstrate emancipatory ways of knowing; literature informs an explanation of the experience; and ethical/moral way of knowing is demonstrated by looking for alternative means to achieve the desired outcome and examining the appropriateness of the chosen

ends" (Greenwood, 1993). The creation of the recipes as an aesthetic way of knowing interfaced with the other ways of knowing to enhance Jan's desire to continue to employ aesthetic ways of knowing in her construction of knowledge.

The theme of multiple ways of knowing is significant in informing our research question of discovering our living educational theory of knowledge translation. As we imagined in chapter 2, for us, KT required a bridge between the usual dichotomy of "hard" scientific knowledge and "soft" artistry or intuition to translate to professional action (Schön, 1991). Our experience aligns with Chinn and Kramer's (2008) espoused writings related to the knowledge of the discipline in nursing. That is, knowing is a holistic and active process. For us, employing multiple ways of knowing was critical in shifting our knowing to practice. Using multiple ways of knowing acted as a guide to reveal the relation of a way of knowing to the other ways of knowing, or the whole of who we are (Peschl, 2007). As a result, we no longer see the KT dilemma as an empirical or research knowledge to practice gap. Rather, the issue is a failure to promote the use of multiple ways of knowing to guide KT. KT is reflected in the essence of who we are and what we do from a holistic perspective. It is grounded in the arguments of Dewey (1938) who inspires us not to think in "extreme opposites" such as separating empirical ways of knowing from multiple ways of knowing. Originally, we referred to the CIHR definition of KT; however, we have built an argument for a more holistic view of knowing to guide and enhance KT. As a result of continually entering into act, revise, research cycles, our understanding of the KT issue has been reframed.

Co-Constructing Knowledge

Our second theme of co-constructing knowledge was identified through the triangulation of the data. We use the term co-constructing knowledge to describe an active and integrative stance. "Here, the individual is engaged in meaning making with others in an attempt to extend and transform their collective understanding with respect to some aspect of a jointly undertaking activity" (Wells, 1999, p. 84). Our experience reveals that knowledge creation stems from the convergence of multiple ways of knowing. Furthermore, many authors link multiple ways of knowing to knowledge co-construction by advocating for the inclusion of the voice of others to elaborate and extend ideas (Brookfield, 2002; Chinn & Kramer, 2008; Cranton & Carusetta, 2003; Dyke 2006; Kasl & York, 2002; Mezirow, 1997; Placier, Pinnegar, Hamilton, & Guilfoule, 2005). Below we include a source of data as evidence of this theme from concept map transcriptions on January 17, 2012:

> *JEN: ...talking about applying the literature, but we're talking about our elaborations, our translating the literature, like to make it meaningful to us and then applying it in a way that is meaningful to us. So, to me that incorporates multiple ways of knowing into knowledge translation. So, it wasn't—like I'm trying to think, was it ever a direct knowledge transfer strategy...*
>
> *JAN: Yes, we're constructivists...*
>
> *JEN: Yes, so it's a co-constructing, that whole co-constructing of knowledge. Because we've already said lots of times it's not a direct knowledge transfer its— and that if we're coming up with new ideas and we're elaborating on it but we're doing it together, like we're extending the ideas together.*

Further, we offer several academic artifacts to demonstrate our theme "co-constructing knowledge." For example, throughout our graduate academic journey we jointly created presentations which represented our co-construction of knowledge as shown in Figure 3. It was through our joint presentations that we brought together evidence in a new way that reflected our convergence and elaborations of multiple ways of knowing.

Our MRP also serves as an artifact which demonstrates our theme of the application of multiple ways of knowing and co-constructing knowledge in our inquiry. In our MRP we include literature, narrative, personal journal writings, videos, and visual representations of our meaning. We feel the use of multiple mediums is an effective tool to demonstrate the application of multiple ways of knowing.

Our theme of co-constructing knowledge reveals our process of KT involved collaborative teamwork as a way to stimulate professional development, renew knowledge, and keep up with demands of work (Tillema & Orland-Barak, 2006). We have spent a significant amount of time attempting to understand KT. For us, it involves: understanding, elaborating, questioning and sharing experiences both real and imaginary. Tillema and Orland-Barak (2006) provide insight related to *serious conversations* as dialogic processes that may contribute to shared meaning and co-construction of knowledge.
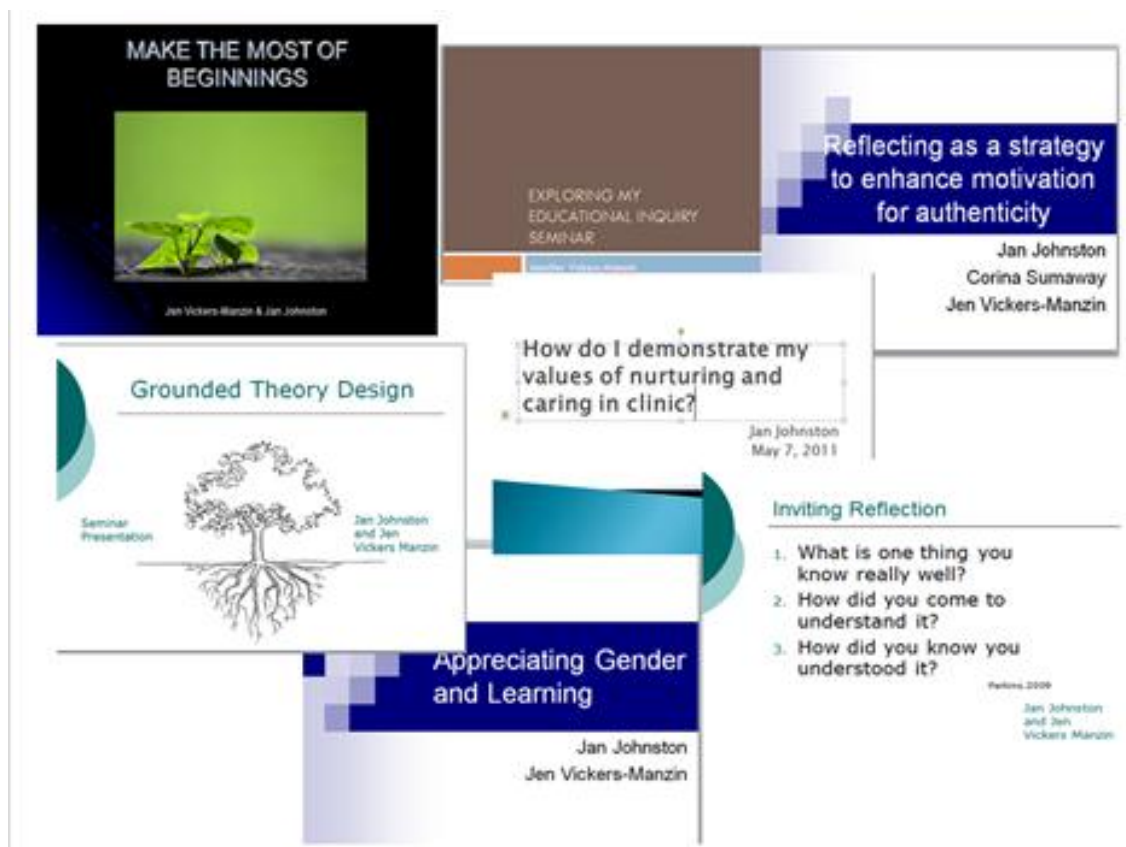
Figure 3. Collage of our co-constructed presentations.

Of interest is that Tillema and Orland-Barak's (2006) findings suggest personal beliefs impact participant contributions to knowledge construction and their own understanding of what is important. That is, our theme of co-constructing knowledge supports our notion that evidence needs to be vetted in a personally meaningful way in order for it to be translated. We confirm our suggestion in chapter 1 that evidence is contextually bound and individually determined therefore "there is no such thing as *the evidence*" (Rycroft-Malone, 2006, p. 102). Our experience reinforces our idea that knowledge may change or evolve in the process of being translated. Furthermore, the co-constructing knowledge theme reinforces what we espoused in chapter 2. That is, KT goes beyond moving knowledge from one domain to another. The theme of co-constructing knowledge strongly links to other themes. We use chapter 5 to make clear these links in expressing our KT process through our living educational theory of KT.

Reflecting Collaboratively

We use this section to describe our broad theme of reflecting collaboratively that has emerged as a component in our process of KT. The triangulation of the data reveals three additional sub themes of: cognitive preconditions; intention; and discovering our process. Reflection has been described as an active process of turning experience into learning that profoundly affects our worldview (Boud, 2001). Criticos (as cited in Merriam, (2001) makes the connection between reflection and learning in stating: "effective learning does not follow from a positive experience, but from an effective reflection" (p. 62). The literature differentiates meanings ascribed to the term reflection. We refer to Brockbank and McGill (2007) as they offer two broad descriptions:

First, the process or means by which an experience, in the form of thought,

feeling or action is brought into consideration, while it is happening or subsequently. Secondly, deriving from the first, the creation of meaning and conceptualization from experience and the potentiality to look at things as other than they are. The later part of the second definition can embody the ideas of critical reflection. (p. 64)

Developing Cognitive Preconditions

The data from our dialogues and academic writing during our research journey revealed the sub-theme of cognitive preconditions. Merriam (2001) suggests that cognitive preconditions may be necessary to participate in critical reflection at a transformational level. We identify an inquiry habit of mind as a cognitive precondition in our KT process. An inquiry habit-of-mind is a mindset of being in charge of one's own destiny, always needing to know more, creating or locating the knowledge that will be useful for reflection and focused planning, and making decisions along the way (Katz et al., 2009, p. 47). The literature, our professors, peers, and each other acted as a guide and resource to develop our knowledge and skills related to an inquiry habit of mind, which has contributed to the quality of our reflections (Brockbank & McGill, 2007). Below we include two data sources revealing the theme of cognitive preconditions. First, we provide data from the transcription of our operational theory of action dialogue on June 22, 2012:

> JAN: ...well I think I've changed the way I'm thinking in this three year journey. You said you're going to disregard or you're not going to notice it or pick up on it or consider it important unless you've changed your thinking and then you go back and read it or go back and have those conversations and you re-experience evidence like literature and you notice it differently.

The second data source to demonstrate the sub-theme of cognitive preconditions is from Jen's academic writing on April 8, 2011. Jen writes:

Course work has provided an opportunity to engage in reflection and rational/reflective discourse as well as develop my worldview and educational philosophy. As a result of these processes I have developed new abilities that I feel align agreeably with learning to critically reflect. (Vickers-Manzin, 2011a, p. 10)

The sub-theme of cognitive preconditions reveals that our improvement in KT required us to develop our cognitive abilities in order to critically reflect. We agree with Brockbank and McGill (2007) who state mature learners are open to imaginary alternatives, critique and uncertainty. Mezirow (1997) reinforces the idea of cognitive pre-conditions in his expression of the requirements for critical reflection as autonomous, responsible persons who are able to negotiate their own values, meanings, and purposes.

Having the Intention to Reflect

Intention to engage in collaborative and critical reflection is another sub-theme. Chapter 3 provides evidence of intentionally engaging with a critically reflective research methodology that is congruent with our values. Also, intention is weaved throughout many of our identified themes, particularly the themes of authenticity and values. Chinn and Kramer (2008) make the connection between intent and behaviour when they discuss knowing as a way to perceive and understand the self and the world; the expression of that knowing is a form of knowledge that can be shared with others (p. 3). It is through our expressions that our intent shifts to behaviour. We share data to demonstrate the sub-theme of having the intention to reflect. In May 25, 2012 journal entry, Jen writes:

My research question is at the forefront of my mind on a daily basis and I carry

my journal everywhere. I find myself looking for evidence by reflecting in action.

This is a shift for me in terms of my intent and frequency of reflection.

Further evidence to demonstrate the intentionality sub-theme is highlighted when

we discuss our process as being purposeful in an excerpt from our transcriptions of our

concept map dialogues on January 17, 2012:

JAN: We're creating a process that was at first incidental now purposeful.

JEN: Mm-hm.

JAN: So, it's the how as well the way we dialogue makes it purposeful now shapes

how we see things, shapes our lenses. And it gives us more than one lens, so you

say it shifts our lens, but it gives us more than one lens.

The sub-theme of having the intention to reflect informs our living educational

theory of KT. It has been our experience that making our intent explicit further

committed and motivated us to reflect. There is then an incentive to explore, question and

bring to consciousness the reasons for actions. The collective result is that the quantity

and quality of our reflection has improved.

Discovering Our Reflective Process

The third sub-theme identified was discovering our reflective process. By process

we refer to how a task is undertaken as opposed to the task itself (Brockbank & McGill,

2007, p. 73). Within the sub-theme of "discovering our process" are three concepts. They

are: using a core reflection model to guide deep reflection (as shown in Figure 4); the

adaption of the core reflection model; and the choice to transform practice.
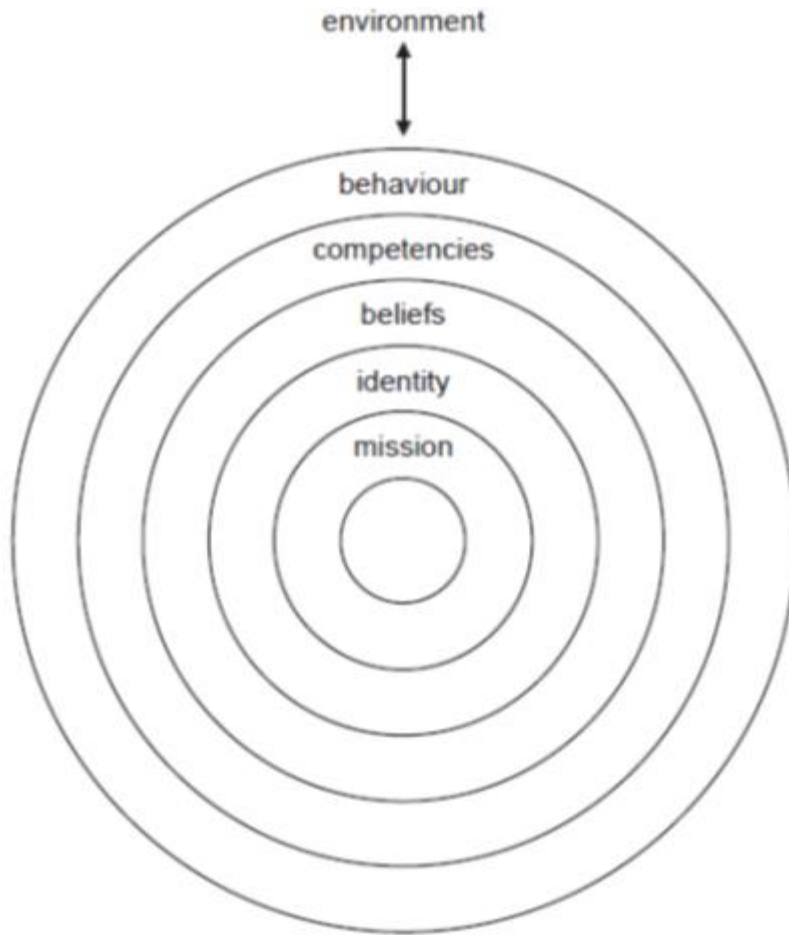
Figure 4. The core reflection model.

Using Korthagen and Vasalos's (2005) Core Reflection Model

The process of core reflection involves reflecting on many levels and ways of knowing. Korthagen and Vasalos (2005) encourage us to begin by uncovering our core professional identity and mission which provides us insight into the more fundamental issues that influences our practical functioning. We imagined that the core reflection model was relevant to overcoming our challenges with KT. The following are excerpts from our academic writing to further demonstrate the concept of using the core reflection model to guide deep reflection. The core reflection model provides questions as prompts which acted as a practical aid for reaching a new self-awareness (Korthagen and Vasalos, 2005). For example, prompting us in the form of questions to identify our core mission and identity. On April 8, 2011, Jen reflected on her most inner core or *mission* by using the core reflection model. "In short, my mission is bound to a desire for greater good, I feel morally and ethically bound to make a difference and to understand the purpose of my actions" (Vickers-Manzin, 2011a, p.5). In exploring her mission on April 8, 2011, Jan writes: "*I realized my mission is to build respectful, collegial relationships - relationships are everything to me. Professionally, I am inspired to make a difference; to build capacity within myself and others and within the profession of nursing*" (Johnston, 2011a, p. 13).

We have discovered that our process included using the core reflective model to enhance our self-awareness and reflective process. The triangulation of the data reinforces our belief that reflection is necessary to understanding oneself and is a prerequisite to KT. Self-awareness, which we have also referred to as knowing thyself, enhanced our KT as it enabled us to more readily identify knowledge aligned with who

we are or not. Knowledge or evidence that is in alignment with our core mission and identity is more readily translated. We found that self-reflection helps inform critical reflection where one becomes fully conscious of limiting behaviours (Korthagen & Vasalos, 2005, p. 53). By attending to both inward and outward reflection between practice and broader political and social issues, we improved our KT (Brookfield, 1987; Dyke, 2006; Larrivee, 2008).

Adapting the Core Reflection Model

The triangulation of the data revealed the concept of adapting the core reflective model to include the voice of others at all levels. Brookfield (2002) describes how teachers can come to critically reflect by using four lenses of: themselves, students' eyes, colleagues' perceptions, and literature. In data from a March 23, 2011 class seminar, Jan's public reflection of her identity by using the core reflective model demonstrates the concept of collaborative core reflection:

> *Sitting with Jen at my kitchen table that I realized my feelings of powerlessness, voicelessness, and that I conform to do what is expected of me—Was I an automaton? Have I been persuaded to accept uncritically the messages of the culture I play the "good girl" role in many aspects of my life. In fact, I've been a good girl all my life, which I now realize has limited me to becoming more authentic, and mindful of my practice.* (Johnston, 2011e)

Also data from our professor demonstrates our embodiment of the theme of applying the core reflective model collaboratively. On March 31, 2011 our professor writes: "you took a concept/model that was very challenging to work with at a deep level

and managed to attain a strong level of depth. ... Excellent demonstration of a collaborative reflective process utilizing an effective tool."

Collaborative core reflection was a necessary concept in our KT process. We did not simply take the core reflection model, as is, and apply directly to practice. Rather, we adapted the model and applied it in a collaborative way that was more meaningful to both of us. Our experience of collaborative reflection was comprised of dialogue. We agree with Brockbank & McGill (2007) when they state: "dialogue that is reflective...engages the person at the edge of their knowledge, their sense of self and the world as experienced by them. Thus their assumptions about knowledge, themselves and their world is challenged" (p. 65).

Choosing to Transform Practice

In chapter 2 we identified the importance of being aware of a disorienting dilemma as a stimulus to improve KT. It is through the triangulation of the data that choice was revealed as a concept within the sub-theme of discovering our process. We present data that demonstrates choosing to transform practice as an important concept in our process. A personal journal entry on March 24, 2011 demonstrates this concept:

> *It was with Jen that I realized that I have a choice to not play the good girl, I can become the practitioner and person I want to be by focussing on my strengths in relationship building, being able to have clear, honest, respectful communication, courage, and perseverance within relationships.*

The core reflective model prompts users to go to the next level of reflection—identity. The "level of identity has to do with how we experience ourselves and our self-concept" and necessitates a critical reflection on limiting behaviours (Korthagen &

Vasalos, 2005, p. 53). We provide further data to demonstrate the importance of the concept of choice as it relates to articulating our identity. On April 8, 2011, Jen writes:

> *I realize I was searching for one "right way" to facilitate learning. This last point does not align with my world view. ... Revealing my "identity" was both disorienting and liberating. The disorienting component was linked to the revelation of a tension "that touched my very core" (Korthagen & Vasalos, 2005, p. 55). The liberating piece was an acute awareness of my limiting behaviours, feelings, images, and beliefs. Liberating in the sense I became aware of a choice, the choice to allow my own limitations to create a barrier to achieving my mission or not.* (Vickers-Manzin, 2011a, p. 12)

Discovering our process of reflecting collaboratively using the core reflection model presented us with the choice to revise our actions in response to a disorienting dilemma, thereby translating emancipatory knowing into practice (Chinn & Kramer, 2008). The awareness of choice as a product of reflection was significant for both of us. We now use this as a jumping off point for entering into the revise stage of our action research cycles in improving KT.

In summary, the theme of 'reflecting collaboratively' is comprised of three sub-themes which inform our research question: what is our living educational theory of KT? First, our experience in our graduate studies has contributed to the development of our cognitive functioning and enhanced our ability to employ an inquiry habit of mind (Katz et al., 2009). Second, we identify explicit intention as significant in shifting to behaviour or engaging in reflective dialogue. Third, we have discovered our collaborative reflection process

Dialogue

Dialogue emerged as a theme that is tied to the other themes of reflecting collaboratively and co-constructing knowledge. We use this section to discuss how dialogue is an essential component to our KT process. Our experience revealed learning from reflection required more than an individualistic process. We found that when we limit ourselves to our internal dialogues we are limiting ourselves to our own insights (Brockbank & McGill, 2007). To become a dialogue, a conversation moves beyond talk to include specific characteristics such as: inquiry, critique, evidence, reflection, and response (Pinnegar & Hamilton, 2009, p. 87). Also, our dialogue process provides rigour; establishes assertions for action; and understanding and "provides researchers the authority to insist on the authenticity, coherence, and trustworthiness of what they have come to understand about their experience through this process" (Pinnegar & Hamilton, p. 88). The triangulation of the data reveals two additional sub themes: dialoguing within a safe space and dialogue cycles.

Dialoguing in a Safe Space

It has been our experience that our dialogues are free of adversarial or didactic approaches. Penlington (2008) highlights conditions that foster decision making about action and transformation include being free to question one another and involving an optimal level of conflict. Below we include a quote from Jen's personal journal on July 7, 2012, that demonstrates the necessity of a safe space to enhance dialogue:

> *It is an academic discourse that feels safe and non-threatening. It stems from a desire to want to learn more and understand the whys and hows of improvement ... our time together is stimulating and motivating. It provides the time and space for discourse, reflection in action and loving supportive acceptance of different points*

of view. All of these seem to be a critical piece of the KT experience. I feel both my

soul and brain are nurtured through our dialogues.

Further, we offer a photograph in Figure 5 to illustrate our safe space during a reflective

dialogue on June 22, 2012.

The subtheme of requiring a safe space to enhance dialogue strengthened our KT

process. We believe that dialogue required community. The idea that community should

be filled not just with critique but also with caring is evident in the phrase "critical

friend" and our experience.

Evocation

We identified evocation as a concept that emerged. Our dialogues involve

evocation through questioning. We found evocative questioning as drawing out rather

than imposing ideas and exploring a situation from a different point of view (Miller &

Rollnick, 2002). We share data to demonstrate the sub-theme of evocation as part of our

dialogue process. In a personal journal entry on March 24, 2011, Jan writes:

Jen's evocative questions and respectful dialogue[during collaborative core

reflection]focused solely on me, my dilemma. This helped me realize that my

personal history and professional culture had influenced my identity, thus my

behaviours and decision making. Perhaps, for most of my life.

The second data source to further demonstrate the concept of evocation from

Jen's personal journal on July 7, 2012.

Figure 5. Jan and Jen dialoguing in Jan's kitchen.

Jen writes:

> *There is often a tug and pull in our discourse related to clarifying our meaning. It*
>
> *is this tug and pull, the clarification, that I find so stimulating. ... We dialogue*
>
> *about the research and its meaning to me personally and professionally. To*
>
> *identify specifically the so what and now what (the meaning of the research and*
>
> *how it can be contextualized). However, it is so much more than just*
>
> *contextualizing the knowledge. The discourse leads to an extension of the*
>
> *knowledge by bending it around specific experiences and linking it to other key*
>
> *literature—or identifying a need or desire to explore further.*

Through our evocative dialogues, we expand our experience of *knowing thyself*
which provides a better tool than each of our worldviews for making day to day choices
that increases our authenticity (Brown, 2002). The concept of evocation is also included
in our sub theme of dialogue cycles.

Dialogue Cycles

Triangulating the data revealed dialogue cycles as a sub-theme of our KT process
involving dialogue. We agree with Pinnegar and Hamilton's (2009) notion: "dialogues
run in cycles of personal reflection, professional interchanges, and public analysis,
followed by private analysis" (p. 59; they also contain "cycles of agreement and
disagreement, mediation and expansion, commonality and difference" (p. 89). Our
experience begins with our coming together then conversing about each of our current
understandings and perspective of what is occurring in each of our private experiences.
We then focus and attend to the experience, analyzing, evoking, and providing each other
different points of view. This contributes to a shared and mutual understanding, creating

a revised perspective of each or our experiences. As a result of a shared understanding our dialogue is ongoing with the goal of acting, reflecting and revising toward improvement. Our dialogue cycles align with Mezirow's (1997) discourse "devoted to assessing reasons presented in support of competing interpretations, by critically examining evidence, arguments, and alternative points of view" (p. 6).

We share data to demonstrate the sub-theme of entering into dialogue cycles in an excerpt from our transcribed Skyped dialogue on January 30, 2012:

JAN: Yes, so going back to what you're saying. I am just thinking when you said: "I think I am now a living contradiction," because you said, "You're less accepting,to behave inauthentically" right. And yet on the other hand, what you're saying now is that you're a lifelong learner and that you don't want to dig your heels in and to create "this is the way I am" and not move. But I think it's the process,… you continue to practice the cycles of reflection and action … and through open conversation. It's that—it's all cyclical and it's the process that you can't stop learning that way. Or like what I'm saying—what I'm hypothesizing is that it's central to my knowledge translation. That there's no way that I could have well translated any of the knowledge that I learned in my M. Ed program and put it into practice and have grown professionally and personally in the last two years if I had not talked about it.

Also, data that captures the essence of our dialogue cycles are provided below from Jen's personal journal on July 7, 2012:

Jan and I met last night after a long work week. It was Friday evening and we met in my office. As always we greeted each other warmly with words and an embrace.

We review how our week has gone, always starting on the personal level. While we are setting up we each discuss how we would like to proceed and come to an agreement related to first steps. Last night, our choice was to start from the beginning of our merged document to see how the document has evolved and is flowing. We started with me at the computer and Jan beside me - pen and paper in hand. We read aloud the document pausing to clarify a comment and identifying where more work needs to come and where we can edit. Often these moments turn into impassioned discourse about our experience and feelings related to the dominant hegemonic influences of KT ... it is in these moments that we feel most alive, with a strong desire to live fully in our we as when I look at my dear friend and colleague I feel, see and hear her passionate words related to her own and our lived experience and see her drawing in key literature to the discourse.

As imagined in chapter 2, dialogue is an essential theme in our KT process. As a result of understanding our process we are now conscious and intentional in modelling the process with and for each other, which enhances our engagement and improvement with our process (Brockbank & McGill, 2007). We come together in a safe space to evoke and challenge each other and enter into cycles of dialogue to debate, expand and learn from each other in order to revise and improve our KT process. Our dialogue process is similar to what Penlington (2008) describes as inquiry dialogue as a way to help people become more authentic practitioners. Although the process is not well understood, the authors explain that inquiry dialogue can help one reflect more deeply (through evocation); helps evaluate actions that uphold moral standards of practice (increase awareness of being a living contradiction and enhance authenticity); and can

reveal how one is bound to action. Furthermore, Placier et al. (2006) discuss a process of conversational move to convergence, divergence or ignore. We used dialogue and reflection to understand how our multiple ways of knowing converge and translate into practice for improvement. We agree with Placier et al. in that "we assert that through dialogue, we come to more clearly walk our talk … and attempt to use dialogue to build praxis" (p. 61).

An Ontological Focus

An ontological focus was a major theme that emerged through the triangulation of our data. Doane and Varcoe (2008) shift the discussion of addressing the KT issue to a more holistic approach that considers an ontological dimension. They write: "We contend that the relationship among theory, evidence, and practice is also a question of how we are—our ways of being and relating to ourselves, to knowledge, to one another and to our environments" (p. 284). Within this broad theme we capture the sub-themes of authenticity and embracing vulnerability. We use the following section to make links to literature to reveal the meaning we ascribe to these themes and share data that demonstrates the theme. We then make explicit how the theme informs our research query of: what is our living educational theory of knowledge translation?

Authenticity

Authenticity is defined by Cranton and Carusetta (2003) as "a multifaceted concept that includes at least four parts: being genuine, showing consistency between values and actions, relating to others in such a way as to encourage their authenticity, and living a critical life" (p.7). In this way authenticity is the expression of the genuine self in the community and in everyday actions which reflect the whole of knowing (Chinn & Kramer, 2008; Cranton 2002). Being authentic involves "learning [that] is construed as a

much broader activity involving the body, the emotions and the spirit as well as the mind" (Merriam, 2001, p. 95). Within this sub-theme of authenticity are three concepts. They are: desire and intent, the practice of mindfulness, and using our values as standards.

Desire and Intent

Data from a transcribed dialogue on January 30, 2012 demonstrates our concepts of desire and intent to be authentic:

> *JEN: Yes, and you were just – while you were talking there— you know what it is too, when I think about my less accepting thing. It's also my desire [and maybe this is how I would word it differently], my desire to be authentic.*
>
> *JAN: Yes.*
>
> *JEN: So, I don't know if I want to say I'm less accepting but I'm more cemented in my desire to be authentic.*
>
> *JAN: So, there it is, so you have this desire and … less tolerable to not be authentic.*
>
> *JEN: Yes.*

An excerpt from Jan's academic writing also illustrates the concept of intent to be authentic.

> *I strive to embody, what Tony Ghaye (Ghaye & Wakefield, 1993) calls ontological authenticity in valuing my own integrity in a way which does not violate the integrity of my [clients] … I need to know who I am, then need to act on it.*
>
> (Johnston, 2011c, p. 14)

The concepts of intent and desire emerged as essential to our sub-theme of authenticity. It is clear through the triangulation of our data that our authenticity was enhanced as our intent and desire to be authentic practitioners was expressed through our dialogues, writings and reflections.

The Practice of Mindfulness.

In chapter 2 we described **developing an awareness** of our mindless behaviours. The triangulation of the data revealed the concept of mindfulness as necessary component of authenticity. Our experience reveals our process of translating our intent to be authentic into our behaving in an authentic way required being mindful. Langer (2000) defines mindfulness as a "flexible state of mind in which we are actively engaged in the present, noticing new things and sensitive to context" (p. 220). We share data below which demonstrates the concept of mindfulness. On June 1, 2011 Jen writes in a reflection:

> *As a result of becoming attuned to my own behaviours, I am finding myself more curious and less judgmental about the behaviours of others. Considering reasons for my own behaviour has facilitated my acceptance of the multiple complex intersections of professional and personal contexts at individual and broader societal levels that affect us day to day and moment to moment.*

Jan's academic writing further demonstrates the concept of mindfulness:

> *I have begun to rethink research as a 'ruin' in which I risk the happy ending to break out of the cycle of certainty (Lather (1994, as cited in MacClure, 1996, p. 283) to learn more about myself and others. My next step is to focus on living my values as fully as I can and to take the opportunity to change my behaviours that do not align with my values. … Zander & Zander (2000) state: "it is only when*

we make mistakes in performance that we can really begin to notice what needs

attention" (p. 31). In my personal practice, if I were to imagine future scenarios, I

will first be more mindful in my use of humour to purposely set people at ease.

 (Johnston, 2011c

For us, mindfulness links to our theme of reflecting collaboratively. Mindfulness

is essential in our KT process. We confirm our suggestion in chapter 1 that the

participation of learners in constructing learning activities will enhance KT (Bucknall &

Rycroft-Malone, 2010). That is as a result of articulating our desire and intent and being

aware of mindless behaviours we became more mindful. Thus, our KT is linked to

learning that is meaningful to us in our lives. Not only do we find ourselves being more

responsive, we also find our responses more authentic. What has evolved from this

process is an *antidote* or a *product*, a way for us to systematically reflect on day to day

practices to take control of our plans and course of action (Larivee, 2008).

Using our values as standards. The concept of using our values as standards to

enhance our authenticity has been essential to our KT process. "What knowledge is, the

sources of best knowledge, and how nurses use and construct knowledge is greatly

influenced, if not determined, by the interrelationship between values and resources at

multiple levels" (Chinn & Kramer, 2008, p. 66). Below is a short quote from September

18, 2012 that demonstrates the concept of using our values as standards and explanations

of our actions, Jan says:

JAN: The shift of focus to cover our own process of KT. stems from our own

personal experience related to KT. We've come to recognize the embodiment of

our educational knowledge and our living theory. Living theory is grounded in discovering one's inner explanation and one's own values.

Data from a reflective dialogue on January 30, 2012, following a Skype conversation with our critical friends further demonstrates the theme of using our values as standards:

JEN: You know I have to say that when I was engaging in the dialogue with … and … who was present there and when we were going back in part methodology inventiveness and in almost all of Jack Whitehead's "response to Creswell," I felt like this overwhelming sense of relief. I was just like, okay, this is in alignment, this is my—like what you are saying. This is my authentic self in the researcher role.

JAN: Okay, so I have to say that we have to go back to what [Nancy] Taber and Loretta had said, "To ensure that we continually link theory to practice in the interest of authenticity." We have to keep doing that.

In response to our living contradiction, in chapter 3 we articulated our intent to use our values as standards or criteria while exploring our data to judge the consistency between our values and actions. In addition to this concept being revealed through our dialogues cycles it is also demonstrated through our actions. Our shared value of life-long learning is evident in our chosen profession as nurse educators; engaging in graduate work; our research inquiry's focus of improvement in our KT and professional development; and the improvement of the quality of our reflections. Our learning is revealed through our research story.

Our shared value of relationships is evident in our collaborative reflective process and research. It is demonstrated through our critical dialogues that challenged our

thinking and our actions. Katz et al. (2009) describe relationships as key enablers of professional learning and practice (p. 40) as well as the fabric of collaboration. The inclusion of others is essential to us, as evident in chapter 3 as well as the theme of culture of inquiry (COI) below.

Our shared values of social justice and democracy are evident in our critical lens on the dominant hegemonic thinking related to evidence based practice and KT. The theme of co-constructing knowledge and dialogue demonstrates our value of democracy. Our desire and persistence in employing an unorthodox research methodology in an unorthodox way (collaboratively) demonstrates our awareness of social forces and choice to act in opposition to them.

Our similar values of Jan's nurturing and caring and Jen's value of kindness are reflected in our desire to give people an A (Zander & Zander, 2000). When giving people an A:

> you find yourself speaking to people not from a place of measuring how they stack
> up against your standards, but from a place of respect that gives them room to
> realize themselves … this A is not an expectation to live up to, but a possibility to
> live into. (Zander & Zander, 2000, p. 26)

We demonstrated giving each other an A by fostering the safe spaces we have created in our collaborative relationship.

Our similar values of: Jan's being genuine, and Jen's values of honesty and optimism are evident in our recognition of ourselves as fallible, our desire to improve and our belief that improvement is possible. The value of optimism and being genuine are captured in our desire to enhance our authenticity in practice.

Through the action research cycles of our MRP we have further discovered specific links between our values and KT. The importance of living our values more fully, or enhancing our authenticity, is that it has a powerful influence on our knowledge translation. The influence is twofold. Firstly, embodying our values in practice is a form of knowledge translation itself. When employing a *multiple ways of knowing* lens to KT it becomes apparent that enhancing authenticity is a form of KT where ethical and personal ways of knowing are translated into practice. Secondly, aligning our values and actions has helped us to become more holistic in our perceptions and understandings of KT. We recognized what we translated to practice is strongly influenced by what the knowledge meant to us. Identifying our values, and looking for evidence of them in practice resulted in a knowing of thyself which increases our awareness of how to reduce perceptual barriers, think critically, and make autonomous decisions to improve our professional and personal selves. After all, "clarifying [our] values is a necessary condition for judging whether improvements in" practice are occurring (Whitehead, 2009, p. 110). Using our values as standards for practice has resulted in a profound change that is not just in the domain of knowledge but is a function of who we are.

Embracing Vulnerability

Embracing vulnerability was a sub-theme of an ontological focus that was identified in the data. Our research story to this point reveals times in our journey where we have embraced vulnerability. These included: identifying ourselves as living contradictions and a disorienting dilemma. For us, embracing vulnerability requires the practice of humility where we must accept ourselves as *fallible knowers*. We embrace Thayer-Bacon's (2003) relational epistemology that

insists knowers/subjects are fallible, that our criteria are corrigible (capable of

being corrected), and that our standards are socially constructed, and thus

continually in need of critique and reconstruction. … This (e)pistemology must be

inclusive and open to others because of its assumption of fallible knowers. (p. 7)

Practicing humility and embracing the idea of being a fallible knower lead us to feelings

of vulnerability. We share data from Jan's academic writing on June 26, 2011, which

demonstrates our sub-theme embracing vulnerability:

> *You have a great sense of humour, though not all of our clients get it. I may be*
>
> *blurring a few clients together, but I think I remember a middle-aged female not*
>
> *understanding the humour, and appearing hurt with the recommendation...[my*
>
> *colleague's] feedback reveals I am a living contradiction. I view myself as*
>
> *someone who values kindness and respect and uses humour as a way to ease a*
>
> *client's discomfort, yet I have negated these values. Also, [my colleague's]*
>
> *feedback reveals that I am a 'fallible knower."* (Johnston, 2011c p. 18)

Further demonstration of this theme is captured in Jen's academic writing on December

4, 2011: *"However, it is through discomfort and vulnerability that I have experienced*

'aha' moments in learning and development. It is also often an incentive to pause and

reflect, and plan on how to take action the next time" (Vickers-Manzin, 2011b, p. 45).

Furthermore, our action research process is centered around our disorienting

dilemma and our desire to improved. In this way, our MRP serves as an artifact

demonstrating our theme of embracing vulnerability.

Brown (2010) believes vulnerability is necessary in the process of coming to

know, to become authentic and live whole-heartedly. We found vulnerability, as key to

"move beyond [our] natural preservation and conservative propensities" (Katz et al., 2009, p. 43; see also Brown, 2010; Chinn & Kramer, 2008; Mezirow, 1998; Whitehead, 1989). It has been our experience that *embracing vulnerability* enhanced our KT by facilitating a move "towards a frame of reference that is more inclusive, discriminating, self-reflective, and integrative of experience" (Mezirow, 1997, p. 5).

In chapter 2 we imagined incorporating an ontological focus would have a powerful impact on our own practices, our own KT, and our ability to influence others. We can now say that an ontological focus is central to our KT process. In shifting to an ontological focus, we embody the personal meaning of knowledge and the alignment of its translation to who we are. Not only did this process enhance our KT it also contributed to our development. We align with Doane and Varcoe (2009) who state KT is an "ontological inquiry involving a meaning making process in which knowledge and ideologies are reinterpreted and active inquiry through everyday practice moves from an evidence-based practice to inquiry-based practice" (p. 283).

Creating a Culture of Inquiry

Triangulating the data has revealed *creating a culture of inquiry* (COI) as a theme in our KT process. Brubaker (2011) describes the concepts that contribute to a COI as a place where participants: "build on one another's ideas and assist each other in providing reasons, drawing inferences, and identifying each other's assumption" (p. 3) through highly interactive and participatory, dialogic practices. The result is a joint construction of knowledge that requires trust and empathetic understanding. Brubaker further suggests that leading discussions within a COI requires the skills of: flexibility, theory/practice congruence, deliberative engagement, and good communication skills. The basic tenets

involved in a COI are shared with the tenets from the community of practice (CoP) literature (Heron & Reason, 2001; Kasl & York, 2002; Wenger & Snyder, 2001). Communities of practice (CoP) are groups of people who share a concern, a set of problems or a passion about a topic, and who deepen their knowledge and expertise on an ongoing basis thereby fostering learning in relationships, groups, and informally (Hansman, 2001). We use the COI theme to show the interconnection of our themes: multiple ways of knowing; reflecting collaboratively; dialogue and an ontological focus. We hope sharing our data in this way increases the comprehensibility and cohesiveness of our research story. A personal reflection June 6, 2012, demonstrates the concepts captured in our theme of a culture of inquiry, Jen writes:

> *It is together we have revealed our process of KT, our own model. It is with Jan, through actions, dialogue and alternate expressions that our model has emerged. It has been refined through dialogue, application to practice, reference to key literature and critical friends. In essence it is through action, reflection, revision cycles that our process has been revealed, while at the same time being refined. It has become our way of being together and who we are. Our reflective dialogues always begin with a lived experience, walking through our feelings, thoughts and actions in the past and for the future. It is a powerful way to embody our true selves while being accepting of inauthentic behaviours.*

In addition there have been other significant relationships that have been essential to our process. Below we share an e-mail correspondence from January 31, 2012 with *critical friends* who have shared a similar creative research methodology. The names

used have been excluded to protect anonymity. The correspondence further demonstrates the concepts in our theme of COI:

> *Jen,*
>
> *I remember well the stage you were/are at. It seemed ephemeral to me too. It was difficult to trust in the process when I wasn't quite sure what that was.It never quite fit until finally it did.*
>
> *Thank you for sharing your journey. Again, [we] are happy to talk any time!*
>
> *Hello,*
>
> *Thank you for your support and questioning this past weekend on SKYPE. It has been pivotal in ensuring my research reflects my desire to be authentic in the research process. Something I have articulated in the past but seem to have floated away from. Here is to finding the joy in the struggle.*
>
> *Smiles*
>
> *Jen Vickers Manzin*
>
> *...*
>
> *I feel for your struggle. But that struggle is so important!*
>
> *:) ...*

A quote from our transcribed concept mapping dialogue on January 17, 2012 further demonstrates the concepts in the theme of a culture of inquiry:

> *JEN: But I think it is worthwhile to talk about—I don`t know if we do a narrative or something to capture what are thoughts were coming in to graduate studies, like you know, my question, my broad question is very different than it is now. I mean that might be interesting to look at, at the evolution of my research question*

and your research question and our research question. Does the evolution of our

question align with the evolution of our knowledge translation and our

collaboration in the shift of our world view? You know, is that the ontology piece

coming through, do the evolution of our questions change because our

epistemology, our ways of knowing changed, or because our ontology changed,

our ways of being changed—I think that is worth talking about where we started

and where we are now.

JAN: It's the evolution of our question aligning with our K.T. It is, a shift of our

world views, and epistemology and ontological changes throughout the M. Ed

program.

Katz et al. (2009) suggest a culture of inquiry can be a mechanism for

"practitioner learning, done collaboratively" (p. 74). In particular we see many parallels

with our COI theme with transformational learning theory (TLT). Transformational

learning theory (Mezirow, 1995) views learning as ongoing and continuous rather than a

linear process and is situated within a constructivist learning paradigm (Baumgartner,

2001; Cranton, 2002). As the data indicates, we see our research in seeking to improve

our own KT involving similar holistic themes to TLT. Like our process of KT, TLT

focuses on the centrality of experience; critical reflection; rational discourse in the

process of meaning structure transformation; and is grounded in human communication

(Cranton, 2002; Cranton & Carasutta, 2003; Kinsella, 2007; Mezirow, 1997). Cranton

(2002) offers a simple overview of transformational learning theory by stating:

Through some event, which could be as traumatic as losing a job or as ordinary as

an unexpected question, an individual becomes aware of holding a limiting or

distorted view. If the individual critically examines this view, opens herself to

alternatives and consequently changes the way she see things, she has transformed

some part of how she makes meaning to the world. (p. 64)

Both our graduate journey and our research process have been transformative and

parallel Cranton's description of TLT. Our living educational theory, discussed in

Chapter Five, provides evidence of our transformation. In chapter 1 we were curious

about the application of learning theory to deepen our understanding of our KT. It is clear

that our theme of creating a culture of inquiry informs our research question by

demonstrating the parallel that exists between KT and learning theory. Tilleman and

Orland-Barak (2006) acknowledge the collaborative and communicative nature of the

way professionals learn. The social element of our journey of improvement is promoted

by our culture of inquiry as a necessary component of critical reflection for

transformation (Brookfield, 2002; Cranton & King, 2003; Dyke, 2006; Korthagen &

Vasalos, 2005; Mezirow, 1998). A COI provided the space and ability to develop skills

that enhanced our KT.

Summary of the Chapter

We feel by choosing to use our values as standards in action research we were

better able to address our research questions: What is our living educational theory of

knowledge translation? How can we contribute to a culture of inquiry to influence others?

We have discovered our process for improving. KT is similar to the process involved in

improving learning and developing professionally and personally. All are life-long,

dynamic, and ever-changing processes. Personal and professional development is hard to

separate. We found to become better nurse educators, we need to become better people.

Cole and Knowles (1995) capture the essence of this idea when they discuss facilitating professional development:

> Who we are and come to be as [nurses] and [nurse] educators is a reflection of the complex, ongoing process of interaction and interpretation of factors, conditions, opportunities, relationships, and events that take place throughout our lives in all realms of our existence—intellectual, physical, psychological, spiritual, political and social. Making sense of prior and current life experiences in the context to the personal as it influences the professional, is in our view, the essence of facilitating professional development. Thus we situate professional inquiry in the context of life or personal histories. (p. 147)

We relate personal and professional development to praxis. By praxis we refer to Aristotle's idea:

> Praxis is reflective action and requires that we continuously engage in the dialectic reflection of ends and means, thought and action. By so doing we are able to change or improve on the practice of our profession for the common good. (Burayidi, 2012, p. 1)

We found, like KT, development is not a series of tasks that we check off as we continue on the journey rather a holistic and active process.

Our KT process involves: multiple ways of knowing, co-constructing knowledge, reflecting collaboratively through dialogue, an ontological focus, and creating a COI. We confirm that our process aligns with our concept map of our imagined ways forward in chapter 2. However, there is one concept, that is not reflected through the theming of our data. It is *LifeMapping*. LifeMapping exercises serve the purpose of using narrative and

biographical accounts to provide rich content for a method of inquiry into life events and their impact on personal development (Kompf, 2006). LifeMapping, was espoused in our concept map as we both have created our own LifeMaps to create our own theory of development. Although our LifeMaps fostered our self-awareness and our critical lens on *grand narrative* explanations, we did not complete a LifeMap to discover our development during this research inquiry as we had imagined. However, like LifeMapping, we used narrative and biographical accounts throughout our research story and created our concept map as a way for us to prompt consideration of our KT process. Our process shares the characteristics of effective teacher professional development; purported by Dewey in *Experience and Education*; embraced by Mezirow in his transformational learning theory; and incorporated into the methodology of action research (Dewey, 1938; McNiff & Whitehead, 2011; Mezirow, 1995). We use chapter 5 to illustrate our living educational theory of KT and reveal how we can contribute to a culture of inquiry.

CHAPTER FIVE: OUR LIVING EDUCATIONAL THEORY OF KNOWLEDGE TRANSLATION

We use this chapter to consolidate our evidence and describe our emerging process of KT as our living educational theory. Our living educational theory "[is] an explanation of the educational influences" in our process of knowledge translation (Delong & Whitehead, 2010, p. 3). In this way, chapter 5 summarizes how our research query has addressed our research questions: What is our living educational theory of knowledge translation? How can we contribute to a culture of inquiry to influence others? We start by illustrating our living educational theory of our own KT process. Second, we describe our contributions to a broader culture of inquiry and our influence on the nursing profession. Third, we offer a comparison of our living educational theory to the Knowledge-to-Action (KTA) framework as well as the McMaster Nursing Education Model. Finally, we offer a critique of our living educational theory by describing the challenges of our process.

Our Living Educational Theory: Choosing Holistic Personal and Professional Development

The purpose of our inquiry was to explore the questions: (1) what is our living educational theory of knowledge translation? (2)ow can we contribute to a culture of inquiry to influence others? Our mode of inquiry used Whitehead's (2009) action research living theory methodology, Kasl and York's (2002) collaborative inquiry, Charmaz's Constructivist Grounded Theory, McNiff's (2006) form of narrative for the generation of living theories, and Pinnegar and Hamilton's (2008) self-study approaches. Action reflection cycles were used and include the expression of concerns when values

are not being lived as fully as the practitioner-researcher believes to be possible. The next step, involved imagining possible improvements (Delong & Whitehead, 2010, p. 1). We employed both a backward reflexive and a prospective process to discover of our own story of KT during our journey in graduate studies. Retrospectively we have explored our reflections, both individual and collaborative academic writing and transcribed dialogues. Prospectively we offered "episodes of practice that show [our] developing educational influence" within our collaborative inquiry of how we are improving our own KT (McNiff & Whitehead, 2011, p. 133). We have demonstrated both social and personal validity by triangulating our data to validate our claims to know. Our living educational theory is a conceptual representation of our process of KT and represents our reframed understanding of KT. We have named our process *choosing holistic personal and professional development*.

We have captured our living educational theory as an emerging model of KT in Figure 6. When we refer to our model we are not referring to a generalizable theoretical model but rather a representation of our current process of KT. Our living educational theory involved triple loop learning (Peschl, 2007; Romme & vanWitteloostuijn, 1999). We used six prompts—how are you thinking; how do you need to think differently; what are you doing; what will you do differently; how are you being; how do you need to be different—to prompt our act, reflect, revise cycles. Peschl (2007) expands on Argrys and Schon's concept of double loop learning to triple loop learning. Single loop learning is considered a change in action that leads to the same outcome, not allowing for "paradigmatically new knowledge and radical 'innovation'" (Peschl, 2007, p.137). Double loop learning involves reflection of values and norms, questioning assumptions in

order to change action to be congruent with the values and theories they espouse (Greenwood, 1998; Romme & vanWitteloostuijn, 1999). We see triple loop learning as aligning with transformational learning theory. Triple loop learning enhances the fullness and deepness of learning, deeper changes on the existential level and involves an ontological focus (Peschl, 2007). In other words, single loop learning focuses on a way of acting, double loop looks at a way of thinking, and triple loop looks at a way of being. Our model is constantly evolving and includes multiple layers that are happening concurrently and at different paces. We use three groups of questions in our model as headings to organize the articulation of our model in a comprehensible way.

How Are We Thinking? How Do We Need to Think Differently?

We used two prompts—how are you thinking; how do you need to think differently—to monitor our knowledge construction and prompt our inquiry process to encourage multiple ways of knowing. We acknowledge that at times one way of knowing may dominate other ways. For example, an experience may trigger a strong emotional response related to personal or ethical way of knowing. In other words, one way of knowing may "[go] wild" (Chinn & Kramer, 2008, p. 25). Dyke (2006) cautions that prioritizing practitioner experience at the expense of other sources of knowledge (formal theory or research based knowledge) may misinform their decisions. It has been our experience that through dialogue the domination of one way of knowing becomes tempered and converges with other ways of knowing for knowledge co-construction. Our experience was centered on personal knowing from experience expressed as a dilemma. The experience of being inauthentic in our professional practice while living authentically in our graduate studies was disorienting.
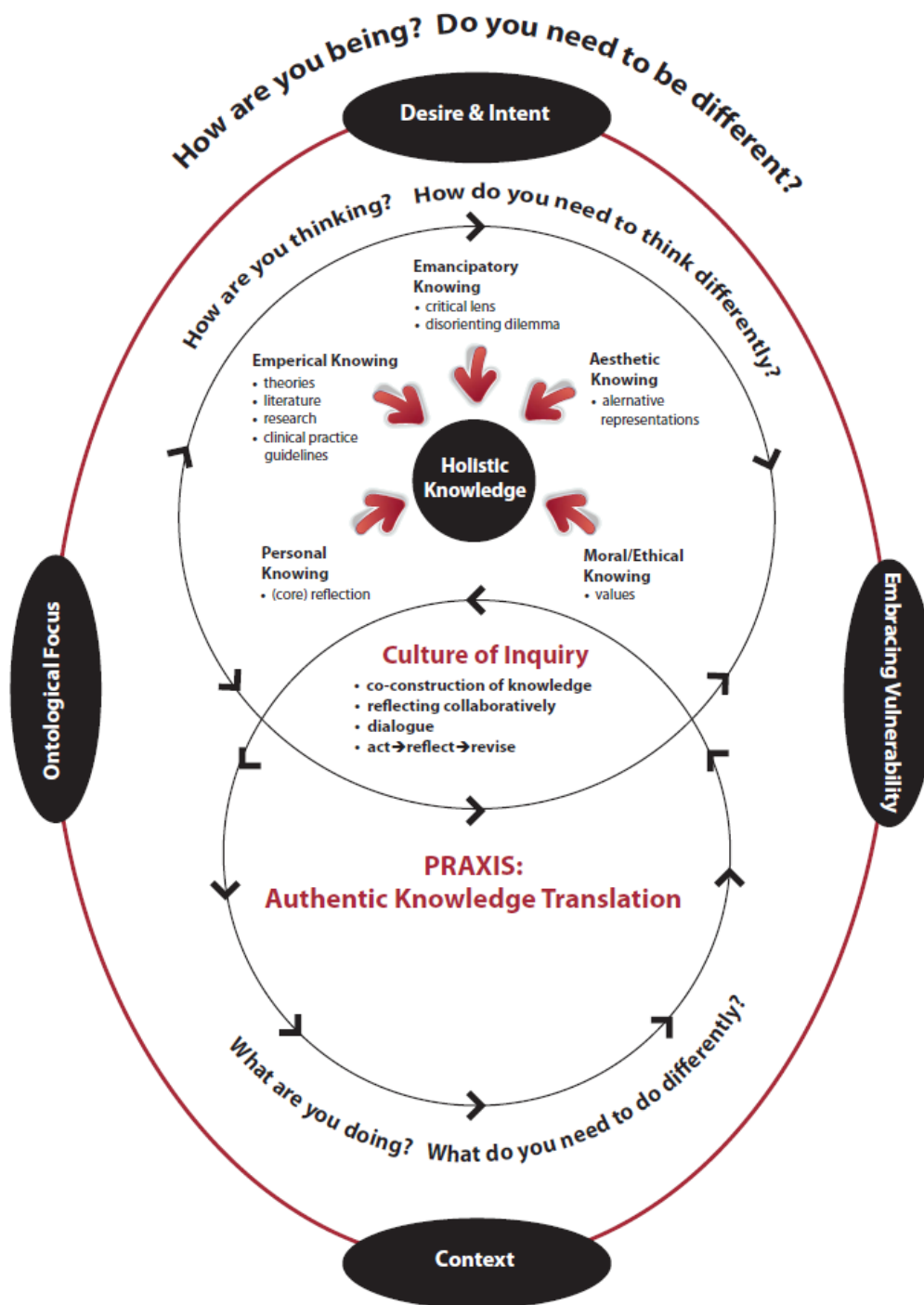
Figure 6. Choosing holistic personal and professional development—Our living educational theory.

We found that holistic knowledge is essential as a basis for best practices in nursing enhancing KT. We agree with Doane and Varcoe (2008) who state: "we shift the discussion from one that is solely concerned with epistemology to one that considers the significance of ontology and the way in which epistemology and ontology are intricately intertwined in every nursing action" (p. 283).

It is through a holistic approach to knowing that our knowledge creation became meaningful to us, situated in our personal and professional lives. It is holistic in that it employs multiple ways of knowing to enhance our understanding and does not separate knowing from action. Our coming to know in a holistic way involves an inquiry process into each way of knowing and aligns with Chinn and Kramer's (2008, p. 14) inquiry process in Appendix C.

What Are We Doing? What Do We Need to Do Differently?

We used the two prompts—what are you doing; what will you do differently—to ignite collaborative reflection in relation to praxis. We have found that knowledge is derived from practice, and practice is informed by knowledge, in an ongoing process. In our living educational theory, we refer to the embodiment of multiple ways of knowing as praxis: authentic KT. We agree with Chinn and Kramer (2008) who state: "the process of praxis, when engaged in a collective sense, is the most important form of authentication (p. 101). When authentication processes are used with an eye toward uncovering, understanding and revising it ensures a constant process of engagement in thoughtful reflection and action to transform (Chinn & Kramer, 2008). It is through our collaborative action research framework that we constantly monitored practice as a way of coming to know and improve. The cycles included: the expression of concerns when values are not being lived as fully as the practitioner-researcher believes to be possible

(Delong & Whitehead, 2010). It is through a collaborative relationship that we created a culture of inquiry where through dialogue and reflection we decreased our perceptual barriers and lived our values more fully to enhance our authentic KT. Our approach is similar to Placier et al. (2006): "the conversation of the field was about alternative ways of knowing, the inclusion of all voices, and a belief that solutions to problems at a particular place could best be solved through interaction among those most intimately concerned" (p. 53).

Our view of praxis is informed by a postmodern perspective, meaning that one can never fully embrace knowledge within any of the patterns as the final "truth" (Chinn & Kramer, 2008, p. 16). We found our living educational theory was dependent on our context and situation. Our coming to understand our KT process revealed the necessity of an explicit link between our espoused understanding and our actions. Holistic knowing tempers our actions to reflect a holistic understanding of issues and is in greater alignment with our values. In this way, holistic understanding fosters authentic practice. Therefore, embodying our values as living standards of judgement represents how and why we translate knowledge.

How Are We Being? Do We Need to Be Different?

We use the two prompts—how are you being; how do you need to be different—to monitor our personal and professional development including the embodiment of ontological authenticity. Of significance, is the word *choosing* in our title of our living educational theory. The concept of choice was significant in our KT process for many reasons. Firstly, the realization of choice helped us to reframe our options when faced with being vulnerable or fallible. That is, we could choose to move forward in a more authentic positive direction or not. Choosing to address a disorienting dilemma that is

personally meaningful fostered our KT. The acceptance of this was supported in the safe and secure space of our relationship. Secondly, choosing what and how we researched was key in enhancing our desire and intent. Also, clearly explicating our living educational theory helped us to understand our KT process while at the same time refine and reinforce it. Thus, we found *choice* provided a sense of control and ownership in our personal and professional development.

Finally, our living educational theory expressed as a model reveals how our improved learning forms the basis of improved practice related to KT. What has emerged through our inquiry is that self-study action research is a way to understand and improve KT. It is our hope that the reader is able to validate our claims through the evidence we have offered. We believe our process of KT involves a different conceptual understanding then when we began our journey. For us, KT is an ongoing process for personal and professional improvement. We found that translating *other* knowledge involved personal, individual, and collaborative processes. Our experience is that our KT is enhanced through ongoing action, reflection, and revision cycles to monitor praxis; employing multiple ways of knowing; and coming to understand and act through collaborative critical reflection via dialogue within a culture of inquiry. Our living educational theory is central to how we live and translate knowledge. Our process is a way of reshaping our ways of being, knowing relating and acting. We believe that the KT problem is not a knowledge-to-practice gap which is framed as an epistemological stance. Rather, it is way of being that reflects the essence of who we are and what we do from a holistic perspective.

Contributions to the Nursing Profession

The second aim of our research query was to contribute to a culture of inquiry to influence others. Our influence is twofold. Firstly, what we contribute to the professional knowledge base through our MRP writing and secondly how we influence others with our revised actions. We hope by contributing to the professional knowledge base, through our writing, will encourage others to take a similar journey of discovery in using non-traditional approaches. In seeking to improve our practice we suspected we were influencing the practice of those around us. Below we include evidence of the influence of our improvement on others. In her academic writing on June 26, 2011 Jen writes:

> *On two occasions I solicited feedback from peers related to my influence on others. I include excerpts below. The names of colleagues are pseudonyms. One member's feedback in response to: How did I contribute, or not, to a culture of inquiry? Jen wrote: "I think the summarizing/paraphrasing that you did and then giving back to the group allowed us to tap into the collective wisdom of the group. You really didn't position yourself as the person with the answers."...I was noticing the concepts of a culture of inquiry emerging with my colleagues. I was curious about the impact my research had on their own practice. In our last written exchange, I asked: "Based on our interactions to date, you have helped me in my journey to answering: how do I improve my practice? I am curious about the impact, if any, on your own practice. I am wondering if you could think about the following question related to our experience together. Do we help each other improve? How? Ava and Sam both responded positively to this question. I include Ava's response: "Yes, absolutely. Discussing this topic with you has led*

to me reflecting on my practice in a big way… Particularly, in the past year, I

have been thinking about authenticity as something that I value but don't feel that

I am doing a good job of expressing. Through this process, although I have not

verbalized it, I have viewed you as a mentor in terms of becoming more authentic.

(Thank you :)"…I think that most people always want to do better (is this true? I

don't know but it is for me) but that sometimes we need reminders that we have

stopped moving forward. For me, discussing this process with you has been a

catalyst for thinking about my own process." (Vickers-Manzin, 2011b, p. 41)

McNiff (2002) proposes that addressing the question of "how can I improve" has

a social element. Suggesting that aiming to improve our own practice, for our own

benefit, has the potential to benefit the practice of others as demonstrated on November 3,

2012, in Jan's personal journal:

I have encouraged my student to explore her living contradiction. Her learning

plan includes: "To understand conflict of values when providing patient centered

care in ...clinic. " I have encouraged and participated in collaborative reflection

on her practice; dialogued about her multiple ways of knowing; encouraged her

to use her values as a standard to her practice. In her final evaluation, I wrote:

"[she] has identified one of her values as responsibility and discussed how this is

perceived in a counselling session ...[she] is reflecting on her values and how it

relates to practice with a client."

We found that the power of functioning within a culture of inquiry and striving to

improve our KT has a powerful ripple effect. That is, our relationship and collaboration

as critical friends during our research process has evolved to a culture of inquiry that has

influenced others. Action research is a powerful way to seek solutions to practice issues. Our participation in action research resulted in a refinement of skills, an increased self-awareness related to practice behaviours and possibilities for action. A process has been revealed of how to equally and democratically participate in and control our own learning, one small step at a time (Delong & Whitehead, 2011). The result is a shift from epistemological focus to an ontological one. The locus of change is self, rather than other. The irony is the powerful ripple effect this has on the practice of others. From the onset of our journey we have made clear our intent not to generalize our findings. However, we hope that others can learn through our research story and are inspired to explore and improve their own practice of KT.

<div align="center">**Comparison to Knowledge to Action Model**</div>

We compare our living educational theory of KT with the Knowledge to Action (KTA) framework to explicate similarities and differences (Graham et al, 2006). As we expressed in chapter 1, our intent was not to disregard the current approach to KT, nor reject current approaches to CPD but rather question them in relation to our own experience. In chapter 1 we offer a brief description of the KTA framework, we now explore how our living educational theory of KT compares with the KTA framework.

Like our model, Graham and Tetroe (2010) define the KTA framework (Figure 1) as "iterative, dynamic, and complex, both concerning knowledge creation and knowledge application (action cycle)" (p. 209). As well, Graham and Tetroe describe the KTA approach as "collaborative (Denis & Lomas, 2003; Lomas, 2000), participatory or action-oriented research (Macaulay et al., 1999) community-based research (Minkler & Wallerstein, 2003); co-production of knowledge … (Gibbons et al., 1994)" (p. 210). Other

similarities include the identification of a problem and the adaptation of knowledge within the local context. Although the two approaches share similar terminology our interpretation of the concepts are different.

We identify differences between the two approaches. First, the KTA model implies that the roles of researcher, knowledge user and decision makers are separate throughout the process of "ideal phases or categories" (Graham et al., 2006). "For example, researchers can simply focus on knowledge creation activities, leaving the uptake of the knowledge to others to promote and facilitate" (Graham et al., 2006, p.18). Second, the idea of researchers and knowledge users being in separate communities maintains the dominant, hierarchical and objective view of knowledge and quantitative view of learning which maintains the assumption that theory is independent of practice. The KTA model describes three phases of knowledge creation: knowledge inquiry, knowledge synthesis, and the creation of knowledge products and tools which is described as being "distilled" before application (Graham et al., 2006). This metaphor of distillation of knowledge to the "highest form" highlights our concerns related to knowledge hierarchy, the grand narrative and the emphasis on empirical ways of knowing. We use the metaphor of convergence rather than distillation to make reference to a holistic understanding which broadens our knowing. Our model is explicit that the roles and the values of the practitioner researcher can be within the same person which fosters an active role in learning. We believe that the "complex intersection of human experience and social context" (Cole & Knowles, 2000, p. 9) impacts KT.

Furthermore, the assumption of the KTA framework is that there is an appropriate relationship between knowledge producers and knowledge users. That is, researchers and

practitioners are collaborative throughout the entire process. In our experience, the "knowledge creator" or researcher will invite us as a "knowledge user" or practitioner to engage in a research project. Our involvement in the espoused "participatory" approach varies but the main experience is that the involvement is limited and directed by the researchers. For us, being collaborative required a culture of inquiry. As Graham and Tetroe (2010) have identified, the KTA model does not make explicit the "how" of collaboration or each stage of the process. Our living educational theory reveals how we were able to improve our KT through collaboration.

Next, Graham and Tetroe (2010) put forth that more research is required to empirically test the model they ask: "what is the best process to accomplish adaptation to a local context?" (p. 216). We have moved away from exploring the "best process to translate knowledge" as we believe, like teaching, there is no one best way to translate one best knowledge into one best individual context.

Graham and Tetroe (2010) espouse the need for a stable, responsive research agenda and platform to support collaboration. Scott et al. (2008 claim KT requires that there is diminished uncertainty in nursing organizational culture. However, many healthcare settings have a context of uncertainty given the acuity of ill patients; inherent unpredictability; complexity of teamwork; and changing management. Rather than seeking stability within the context, our model reveals the locus of control within the individual. That is, we sought stability between our espoused and embodied values which in turn impacted the context. This is not to negate the importance of context as an influencer to KT but to highlight individual core values and choice within context.

Furthermore, Graham's dominant KTA framework includes the "need to adapt knowledge to the local context." If we believe and accept the dominant hegemony premise that "clinical guidelines are objective, scientific, rigorous, evidence-based statements of best practice, then their implementation into practice is a question of explicitly and consistently following the guidelines without deviating from the instructions" (Kitson & Phil, 2009, p. 126). A paradox arises, that is "clinicians at the local level are able to refute the evidence within the guideline and challenge it" (p. 126). The paradox contributes to the uncertainty of how to move forward in adapting empirical research to local context. Our model suggests that we adopt and adapt research according to our values.

Lastly, Graham and Tetroe (2010) claim that change is more likely to occur with more deliberately planned interventions and strategies, thus requiring HCPs to learn about planned action theories to understand how to influence change. Although not articulated in their current KTA framework, Graham and Tetroe assume that action research may be beneficial. Our experience reveals that action research is a necessary component to enhance our KT. We see the potential of how our model can align with the "adapt knowledge to local context" phase of the KTA model as we have demonstrated how we have translated knowledge by discovering our living educational theory of KT within our own local context. However, the paradox of the dominant view of knowledge and learning still exists.

At the onset of our journey, we found that current knowledge translation models did not resonate with our lived experience. This gap represented "why" we needed to explore our own process of KT. We believe that our comparison of the KTA model and

our living educational theory is not a refutation of the KTA model but highlights the failure of the grand narrative to explain the processes of KT at the level of the individual. Our living educational theory of KT is more closely aligned with learning theories than with the dominant KTA model. Below we compare our living educational theory of KT with the McMaster Nursing Education model.

Comparison to the McMaster Nursing Education Model

The McMaster Nursing Education Model shown in Figure 7 resonated with our living educational theory. While articulating our living educational theory we entered into another act, reflect, revise cycle. Although we had made links between KT and learning the value of this particular model became evident once our living educational theory was made explicit.

Our living educational theory aligns with McMaster's Nursing Educational Model in its conception of how nurses learn and our understanding of our process of KT. Both approaches embrace a "process of inquiry and collaboration" (McMaster University, School of Nursing, 2012, p. 4). Furthermore, critical self-reflection; personal growth; mutual exchange in an authentic relationship; and a respectful environment are considered necessary. We articulate explicit links below.

The McMaster Nursing Education Model (McMaster University, School of Nursing, 2012) promotes "knowledge of self and others, understanding the meaning of situations from a subjective and objective perspective" (p .4) in order "[to]construct their meaning and understanding of situations and come to know nursing" (p. 6). This promotion aligns with our notions of using multiple ways of knowing to come to

understand and inform actions. Furthermore, like our model the construction of knowledge and knowing is viewed as an active process with the individual (s).

In this way both approaches are learner-centered, evidence-based and link to the idea of a mature learner having an inquiry habit of mind. Like our model, the McMaster approach follows the constructivist paradigm emphasizing the building of learning skills.

The McMaster approach also focuses on clinical reasoning and judgment, problem-solving, and being and becoming a professional (McMaster University, School of Nursing, 2012, p.17). The development of 'clinical reasoning and judgement' links with our experience of developing cognitive preconditions or skills in order to develop an inquiry habit of mind and participate in critical reflection at a transformational level. Both models include the engagement in critical reflection and dialogue with others, leading to personal and professional growth. Also, we link McMaster's "problem forming and solving" which aligns with our living educational theory of identifying a living contradiction or disorienting dilemma for improving practice. The reference to "being and becoming" aligns with our emphasis from an epistemological focus to an ontological one. Both models emphasize a person based approach and emphasize contextually situated dilemmas thereby including "holistic and relational components" to KT and learning (McMaster University, School of Nursing, 2010, p. 7).
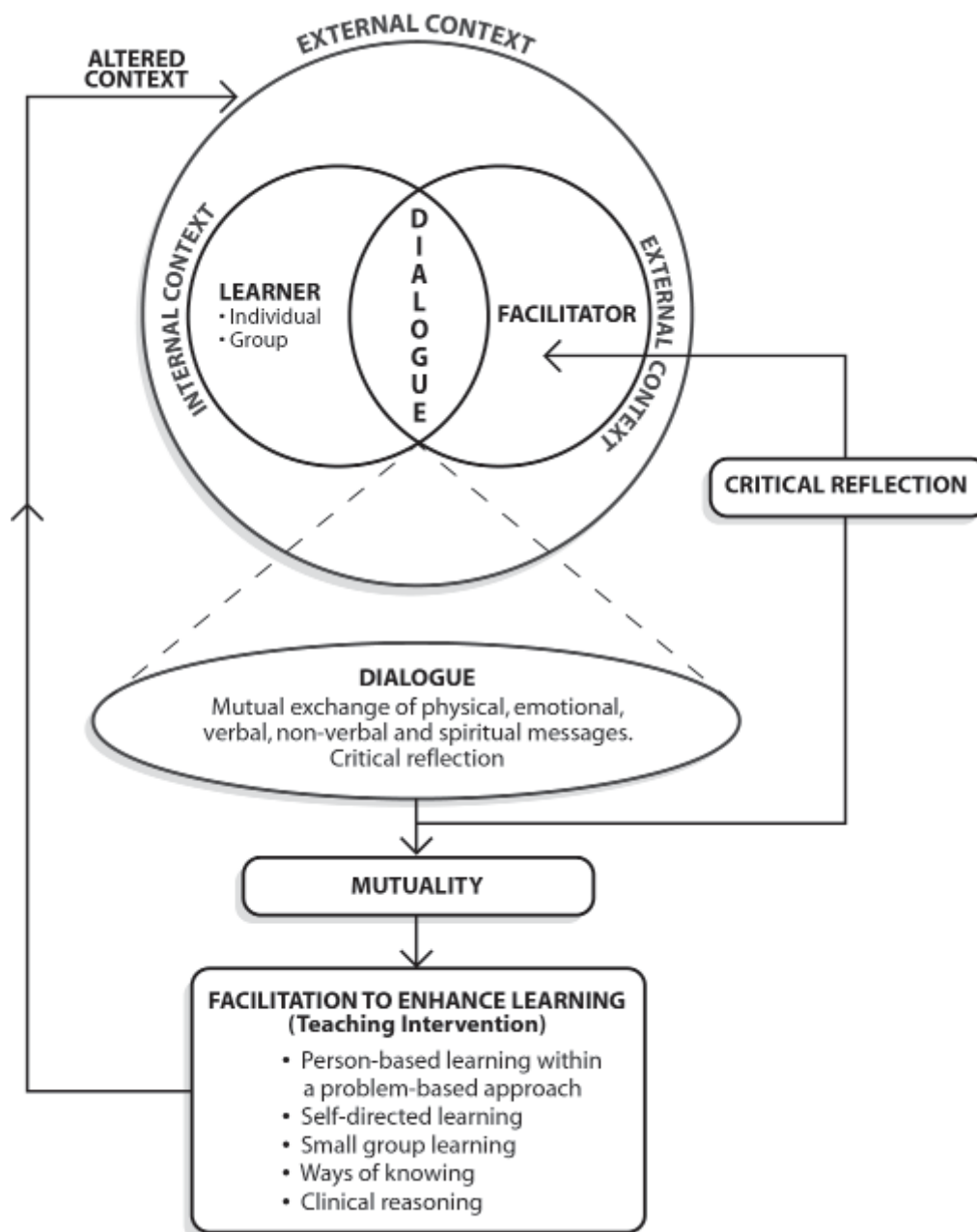
Figure 7. The McMaster nursing education model.

Both models support the concept of a culture of inquiry. The McMaster University School of Nursing philosophy believes "effective collaboration implies mutual respect and trust, shared accountability and responsibility, and the recognition and utilization of the strengths of each partner within the collaborative relationship" (McMaster University, School of Nursing, 2010, p. 4). We believe it is within a culture of inquiry that our model emerged through the action research process to modify praxis. Despite these similarities, we have a concern that empirical ways of knowing maintains its hierarchical status within this health sciences field. As McMaster nursing graduates and as nurse educators, we believe the dominant hegemony overrides the principles McMaster Nursing Education Model within undergraduate nursing.

The major difference between our living educational theory and the McMaster Model of Nursing Education relates to the conceptions of values as they guide practice. Although the McMaster model considers the influence of values on clinical reasoning, values are not emphasized as a standard of judgment by which to practice, as in our model. As a result, the process and challenges in identifying and embodying values in practice are not made clear. As the identification and embodiment of our values was central to our KT process, we feel it is critical to make the processes involved explicit. Intentionally living our values was salient to our KT and was transformative.

Challenges and Critique of Our Model

We imagine the critique of our living educational theory will relate to some of the challenges we experienced during our process. In chapter 1 we reference Bucknall and Rycroft-Malone's (2010) challenges to KT. We have reframed them as the "type" of evidence or knowledge to be translated; context; individual; and dominant continuing

professional development activities. The salient issue that interfaces with all these challenges remains the dominant hegemony and hierarchy of knowledge that exists within the health sciences field. Being situated within a health sciences profession and the expectations within graduate research challenged us to stay true to our emergent philosophies and our unique methodology, contributing to feelings of doubt and vacillation in determining our research approach, resulting in a significant investment of time and energy. Working within healthcare organizations embedded in a culture that may be contrary to an emergent, action research model may present a challenge for others to consider the meaning of our model within their circumstances. We have made clear our philosophical perspectives underlying our research inquiry. We are uncertain about the influence of our model on others who do not share a similar worldview.

Also, time and energy have been cited as a barrier to KT by many authors in the KT field. Although our process required a significant amount of time and energy over the period of our graduate work it is our perspective that it is time well spent. As a result, we have internalized our model and improved our practice of KT.

Implications for Future Action

Our model suggests that CPD activities for the masses may not be the best approach to foster KT. The idea of shifting away from dominant approaches to CPD to enhance KT is not unique to us. Like Wenger and Snyder (2000) suggests in their *Communities of Practice* learning theory, we found that a COI is a way to further knowledge translation. Furthermore, the authors claim: "in the new economy, learning architects are embracing the natural designs of group learning and translating those designs to new organizational cultures and approaches" (p. 143). Imel (1999) declares

that research demonstrates cooperative learning approaches, like COIs and CoPs, produce superior outcomes to more competitive approaches, as well as motivating and engaging the learner to be more involved. Community of practices have the characteristics that not only aid in transformational learning, but can foster learning in relationships, groups, and informally. Wensing, Bosch, and Grol (2009) suggest that in the absence of firm evidence of effective KT interventions exploratory, open-minded, inspired methods such as group brainstorming, and theory -based approaches should be combined in tailoring KT interventions.

We employed an emergent process to study our self-study of KT. For others wishing to follow a similar approach, there may be some benefit to exploring relevant literature, theories or tools that analyze social networks. We found that by exploring our process reinforced our understanding of KT. In the future, we are interested in exploring research related to formal analysis of the social context of knowledge.

Consideration needs to be given to individuals' interests, queries, and concerns within a culture of inquiry. Although CPD needs to align with organizational goals, we suggest the type and process of professional development opportunities should be chosen by the nurse within the organizational context. In the future, we would like to explore further how our model could support the improvement of others' practice. We show our living educational theory of KT as a way to bring together the two communities of knowledge creator and knowledge user by using an alternative approach to CPD. Also, we would like to further extend a COI within our own organization. That is, to encourage others to discover their own living educational theory through action research. We are curious about how this could align with annual learning plans and include the self-

reflection and peer review requirements of the College of Nurses of Ontario's quality assurance program while maintaining a culture of safety.

Summary

We entered into our major research project with a concern centered on practice. Our concern stimulated us to explore our issues using a critical lens. Realizing a disorienting dilemma prompted us to explore our research query. It is through our emergent cyclical research process that our research questions have been addressed. We feel our research project reveals our living educational theory of knowledge translation and how we can contribute to a culture of inquiry to influence others. We suggest that our model provides an alternative approach to the dominant hegemony and hierarchy of knowledge that exists within the KT field. In chapter 3, we imagine a way forward that the difficulty in the translation of knowledge to action is not solely an epistemological problem, but an ontological problem. We have demonstrated that we have translated knowledge beyond technical rational knowledge to incorporate multiple ways of knowing into our personal and professional lives. Our learning has been transformative. Like Doane and Varcoe (2008) we assert that ontology, and ontological motivations are central to how one lives, translates and enacts knowledge in practice (p. 283). Our ontological inquiry involved a meaning-making process in which our knowledge and understanding of ourselves are reinterpreted. Through our action research process we have provided evidence of how our KT requires an embodied process of ontological inquiry and action. By having an ontological focus and using our values as standards of judgment in developing our living educational theory we include a level that goes beyond the domain of knowing, touching the self to the very level of being.

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Appendix A

Transcription Data Sources

Date	Purpose	Collection method	Type of data
Sept 18, 2011	Meeting with academic advisor	Audio recording	Transcription
Sept 26, 2011	Dialogue about application of course concepts	Audio recording	Transcription
Oct 3, 2011	Dialogue about application of course concepts	Audio recording	Transcription
Oct 31, 2011	Dialogue about application of research to paper in course	Reflective notes post discussion	Typed notes
Nov 28, 2011	Dialogue about research process to address our concern	Reflective notes post discussion	Typed notes
Jan 14, 2012	Dialogue and produce concept map to capture our hypothesized components in process of KT	−Concept map drawing −Audio recording	−Concept map −Transcription
Jan 17, 2012	Dialogue and produce concept map to capture our hypothesized components in process of KT	−Concept map drawing −Audio recording	−Concept map −Transcription
Jan 30, 2012	Dialogue with critical friends about methodology struggle	E-mail	E-mail
Jan 30, 2012	Dialogue between researchers about methodology struggle	Audio recording	Transcription
June 3, 2012	Dialogue exploring research process, operational theory of action, and relationship	Audio recording	Transcription
June 22, 2012	Dialogue about operational theory of action	Video recording	Video and transcription
Aug 27, 2012	Meeting with academic advisor	Audio recording	Transcription
Sept 27, 2012	Meeting with academic advisor	Audio recording	Transcription
Personal journals	Varying	Written notes	Written notes

Appendix B

Tool to Strengthen Validity

1. How might we improve our comprehensibility of our explanation?
   a. Does it make sense?
   b. What does it need to improve the comprehensibility?

2. Do we have sufficient evidence to justify our claims to know?
   c. Is the evidence base as strong as it could be?
   d. What does it need to strengthen the explanation?
   e. Does our "truth" emerge?

3. Does our research demonstrate understandings and awareness of the socio-cultural influences that are acting on our writings and explanations?
   f. Do we articulate an awareness of the normative background and taken- for-granted assumptions that impact our living theory?

4. In our writing over time and interaction show that we are truly committed to living our values?
   g. Are we authentic in our claims to know?

Appendix C

Dimensions Associated With Each Pattern of Knowing

Dimension	Emancipatory	Ethics	Personal	Aesthetics	Empirics
Critical questions	– What are the barriers to freedom? – What is hidden? – Who is not heard? – What is invisible? – Who benefits? – What is wrong with this picture?	– Is this right? – Is this responsible?	– Do I know what I do? – Do I do what I know?	– What does this mean? – How is this significant?	– What is this? – How does it work?
Creative processes	– Critiquing – Imagining	– Valuing – Clarifying	– Opening – Centering	– Envisioning – Rehearsing	– Conceptualizing – Structuring
Formal expressions	– Action plans – Manifestos – Critical analysis – Visions for the future	– Principles – Codes	– Stories – Genuine self	– Aesthetic criticism – Works of art	– Formal descriptions – Theories
Authentication processes	– Social equity – Sustainability – Empowerment – Demystification	– Dialogue – Justification	– Response – Reflection	– Appreciation – Inspiration	– Confirmation – Validation
Integrated expressions in practice	– Praxis	– Moral/ethical comportment	– Therapeutic use of self	– Transformative art/acts	– Scientific competence

Note. Adapted from Chinn, P. L., & Kramer, M. K. (2008). *Integrated theory and knowledge development in nursing* (7th ed.). St. Louis, MO: Mosby Elsevier.