A Focused Ethnography of Nursing Faculty and Student Transition to the Culture of a Context–Based Learning Curriculum

By

Vivian Darkwah

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Abstract

Twenty-first century nurses need to be flexible and adapt to the increasing changes in the health care system. Because nurses need to be dynamic in their practice, there is a recommendation to change the education of nursing students from a traditional, teacher-centered approach to an innovative, student-centered approach. Context-based learning (CBL), a type of student – centered teaching and learning, is used in the education of undergraduate nursing students in the Faculty of Nursing in a large western Canadian university. Although CBL is reported in the literature to be beneficial to nursing students' future practice by increasing students' problem-solving skills, collaborative learning and lifelong learning, both faculty members and students have had challenges with the transition from a traditional approach to CBL. The purpose of this study was to learn more about the meaning that nursing faculty and students allocate to their transition to the culture of a CBL approach. A focused ethnographic method was used to generate data for the study through field observation, focus group interviews of faculty members and students and document analysis. Spradley's (1979, 1980) four levels of ethnographic data analysis were used to analyze the research data. The findings from this study support findings in the literature about the transition from a traditional to a student-centered curriculum. The students were initially confused and found the transition to CBL difficult but as they progressed through the program they became comfortable and enjoyed CBL. A unique finding from the students' data was that the students would like both lectures and CBL in their education. Regarding faculty members, some were satisfied with their transition to CBL while a small number were frustrated. Overall, both faculty members and students shared that learning in CBL is collaborative and the classroom is a community. Learning in CBL occurs as students interact with course materials, peers and tutors. The cognitive theme that guides faculty members and

students in CBL is “trusting each other and trusting the process in a CBL community of learning.” The tutors and students agreed they need to trust each other and trust the intended method students outcomes are achieved through. Several recommendations have been made such as the need to strengthen trust in the CBL program through mentorship. Also, tutors should periodically reassure students that they read through their research and will let them know if any additional information is required. The findings contribute to literature in nursing on faculty and student transition to a CBL curriculum.

Preface

This thesis is an original work by Vivian Darkwah. No part of this thesis has been previously published. This study, "Transition of Faculty and Students to the Culture of a Context-based learning Curriculum," No Pro00038286, received research ethics approval from the University of Alberta Research Ethics Board in July 2013.

Dedication

I dedicate this dissertation to my God, my Creator, my King and my Redeemer, Jesus Christ, who has given me strength to finish this program. To God be the Glory for the great things He has done.

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Table of Contents

Tables

Chapter One

A Focused Ethnography of Nursing Faculty and Student Transition to the Culture of a Context–Based Learning Curriculum

The education of students at higher institutions of learning in the 21st century has undergone tremendous changes in order to meet the technological advancements and information explosion of the era. In the early 1960s, experts' in medical education realized that the conventional teaching method was not meeting students' needs, as students could not recall and apply basic science knowledge in clinical practice (Anderson & Glow, 2002; Barrow, 1996). Thus, in the 1960s, there was a national driving force in the United States requesting medical schools to make their programs more innovative. The change was intended to enhance students' active participation in their education, and encourage them to become more self-directed and better at problem-solving (Anderson & Glow, 2002; Barrows, 1996; Grkovic, 2005). Grkovic (2005) indicates that what started out as a request for a change eventually turned into a requirement: medical faculties had to make the change before the General Professional Education of Physicians (GPEP) and College Preparation for Medicine would renew their accreditation. In 1966, the medical faculty at McMaster University in Canada designed an approach to educate their medical students. "The McMaster Philosophy" (Neufeld & Barrows, 1974) became known as problem-based learning (PBL), with the aim of enhancing students' problem solving and lifelong learning in professional work (Bate & Taylor, 2013; Hung, 2006; Neufeld & Barrows, 1974). Other medical schools at universities such as Maastricht University in The Netherlands, the University of Newcastle in Australia and The University of New Mexico in the United States adopted PBL (Dolmans, Gijselaers, Mouist, DeGrave, Wolfhagen, et al., 2002). As a result of the national call to change medical school curricula, by the beginning of 1990 many medical school

deans in the United States had explored PBL when designing their curricula (Anderson & Glow, 2002; Barrows, 1996). To meet the expectations of global and professional regulatory bodies, learner centered approaches such as PBL are being used as instructional methods and as the basis for the design of an entire curriculum in many other disciplines such as nursing, dentistry, occupational therapy, nutrition and dietetics, engineering, psychology, and education (Grkovic, 2005). PBL has attracted the interest of different disciplines because of its documented benefits to student learning such as active involvement in learning, integration of knowledge, and development of lifelong learning skills (Darvill, 2003; Grkovic, 2005; Spalding & Killett, 2010; Venken, Valke, Maeseneer, Schuwirth & Derese, 2009). Other documented benefits of PBL include development of good clinical judgment and communication skills, learning at deeper levels, self-efficacy, and group work (Biley, 1999; Darkwah, Ross, Williams, & Madill, 2011; Darvill, 2003; Grkovic, 2005; Spalding & Killett, 2010; Venken et al., 2009).

The nursing profession in Alberta is regulated by the College and Association of Registered Nurses of Alberta (CARNA). CARNA has identified five competency areas that are needed for entry-level registered nurse practice. These entry-to-practice competencies for the Registered Nurses (RN) profession describe the competencies that registered nurses recently graduated from recognized nursing education institutions are expected to have before they commence work as RNs. Employers and the public use the entry-to-practice competencies as assessment criteria to evaluate nursing institutions and a nurse's practice. Among the competencies are, that newly graduated nurses will be dependable, efficient team members who will be answerable for their practice. Furthermore, graduates should be able to use their theoretical knowledge and critical thinking skills to make professional decisions in rendering care to people, and be familiar with where to find information to support their decisions

(CARNA, 2005). Based on the competencies CARNA expects of newly graduated nurses in Alberta, it is imperative that nursing institutions educate their students using instructional methods that will assist students to achieve these competencies. PBL is an appropriate philosophy to adopt when designing nursing curricula that will provide an environment in which students can learn to meet future workplace demands.

In spite of the advantages of PBL, many faculty members are reluctant to change their teaching practice because of the tension associated with change, their fear of an adverse impact of the new method on students' knowledge, and the demand on resources (Hitchcock & Mylona, 2000). For similar reasons, students have expressed anxiety about changing to a PBL curriculum (Kaufman & Holmes, 1996; Lohse & Shafer, 2007). The literature on faculty and student transition from a traditional curriculum to a problem-based curriculum reveals that there are gaps in knowledge about the transition to a student – centered learning culture among students and faculty members and how the transition differs among undergraduate students with different educational background. Context-Based Learning (CBL), a version of PBL, is being used in a Western Canadian university as an instructional method in the undergraduate nursing program. CBL is a teaching and learning strategy that is student-focused. The learning starts with a real nursing practice scenario and students work in small groups of six to 10 learners to understand the context and determine how to be the nurse in the particular situation. The CBL approach to learning is based on the assumption that nursing is holistic and that nurses appreciate the life context of their patients (Profetto-McGrath, Smith, Day & Yonge, 2004; Williams & Day, 2006). Transition has been studied widely in the literature but there is no previous research that has explored faculty members and students transition to CBL in nursing. A further gap currently is that there is no previous study on differences in transition among students with varied

educational background.

Purpose

The purpose of this study is to learn more about the meaning that nursing faculty and students allocate to their transition to the culture of a CBL approach and to provide new knowledge to the literature on transition to CBL.

Objectives

The objectives guiding the study are to:

1. Understand nursing faculty and students' transition to the culture of CBL.
2. Describe nursing faculty and students' transition to the culture of CBL.
3. Contribute new knowledge to the literature on nursing faculty members and undergraduate students' transition to CBL curriculum.

Research Question

The broad research question guiding the study is, "how do faculty members and students experience transition to the culture of a context-based learning program in nursing?" The specific research questions for both faculty and students are, "How would you describe your transition to teaching/learning in a CBL program?" "What factors influenced your transition?" and "What strategies did you use to facilitate your transition?" A focussed ethnographic approach is used to collect data for the study.

Significance of the Study

The findings from this study will enable nursing educators and students to understand the transition to the culture of CBL. The knowledge from this study will inform how best to facilitate the transition to CBL for students and new faculty members to reduce some of the tension and fear associated with the CBL approach. Finally, the findings from this study may serve as a guide

to other faculties who are interested in adopting a CBL curriculum. It was anticipated that a rich, thick description of the transition to CBL will show differences between faculty members and students experiences in the transition as well as differences among students with different educational backgrounds. The findings will be disseminated through the faculty research day, nursing conferences and nursing education journals (Roper & Shapira, 2000).

Chapter Two

Literature Review

Using the electronic databases Eric, CINAHL and Medline and typing in the key words problem-based learning (PBL), context-based learning (CBL), students and curriculum design, a comprehensive literature review was conducted on all published materials. Although there was considerable literature on PBL, there was limited information on PBL curriculum design and the transition of students and faculty to PBL. Another extensive review was conducted to identify all literature pertaining to faculty and students making the transition from a traditional curriculum to a context-based learning curriculum. The following databases were included in the search: Eric, Psycho-information, CINAHL, and Medline. Key search terms were curriculum, transition, change, lecture-based method, and problem /context-based learning. An additional search was done in the library catalogue to identify relevant book collections on the topic. Approximately 49 articles were retrieved on the second search in each database and 18 articles were obtained when the second search was limited to adults. Numerous studies have focused on the views of faculty members and students within a PBL curriculum. However, there is a dearth of literature on the transition from a traditional curriculum to a CBL curriculum. The focus of this chapter will be confined to the following areas: the meaning of CBL, philosophical underpinnings of CBL, faculty and students' experiences in a CBL program, and the transition from a traditional curriculum to a CBL curriculum.

Problem-Based Learning/Context-Based Learning

PBL was first introduced by Barrows while teaching medical students at McMaster University in Ontario, Canada in 1969 (Alan, 2009; Barrows, 1996; Distler, 2008; Profetto-McGrath, 2005; Schmidt, Van der Molen, & Te Winkel, 2009; Taylor & Miflin, 2008; Torp &

Sage, 2002). Barrows (1996) reports that traditional lectures resulted in students having a limited ability to apply basic science knowledge in their clinical practice during their senior years in medical school. The aim of establishing PBL was to promote students' integration of knowledge and make medical education enjoyable (Alan, 2009). In the mid-80s, the Panel on the General Professional Education of Physicians (GPEP) and College Preparation for Medicine recommended that medical education should include teaching and learning methods that would support students' independent and self-directed learning and problem solving, and limit the use of a didactic approach (Drake, 2014). From the GPEP's report, there was a tremendous move in favor of PBL. Many medical institutions in the United States (US) changed their curriculum to PBL (Barrows, 1996). Since the introduction of PBL in medical education, it has been adopted by many disciplines, including nursing, and more disciplines are converting their curricula to PBL (Savin-Baden & Major, 2004; Schmidt et al., 2009). PBL has become a familiar teaching innovation in higher education around the world, including in the US, Australia, and some countries in Europe and Asia (Schmidt et al., 2009). Also, PBL has been introduced into K-12 classrooms in the US and The Netherlands (Schmidt et al., 2009). In nursing, PBL began to be adopted in the 1980s (Distler, 2008; Profetto-McGrath, 2005).

PBL is defined as a teaching and learning strategy that is student-focused. Small groups of six to 10 students begin their learning with reading a scenario and then they brainstorm to generate ideas about how they can comprehend and find solutions to the situation in the scenario through analysis, synthesis, and management. Teachers act as facilitators by asking questions that will promote students' learning (Barrows, 1996; Chikotas, 2008; Gwee, 2009; Savin-Baden & Major, 2004; Yuan, Williams & Fan, 2007). Another definition of PBL describes it as an educational approach which involves presenting learners with situations from real-life practices

to serve as a motivation for learning (Dolmans & Schmidt, 2010; Hung, 2006). PBL is also defined as a form of learning that evolves from learners working together in teams to comprehend and resolve a situation derived from a scenario (Kamp, Dolmans, Van Berkel & Schmidt, 2011). Schmidt et al. (2009) support the definition that in PBL, situations are presented first to learners. There may be some differences in the definition of PBL. However, PBL researchers agree on common features (Barrows, 1996), which are fourfold. First, the learning in PBL begins with scenarios which are the unit and stimulus for learning (Yew & Schmidt, 2009). Second, the learning is student-centered, meaning that students are responsible for their learning as they determine what they need to know and where to find information. Students are self-directed in their learning during their process of clarifying their learning goals, choosing the correct learning experiences to achieve the set goals, and planning and evaluating their own learning (Bate & Taylor, 2013; Dolmans & Schimdt, 2010). Neufeld and Barrows (1974) believe that only when students learn to be self-directed during their education will they acquire the skill of being life-long learners. Third, learning is organized around small groups of six to 10 students who are selected randomly. Learning in small groups promotes team work and the development of communication skills such as listening, accepting and rendering criticism, and being conscious of one another's feelings. Fourth, the teacher's role is to facilitate but not instruct (Yew & Schmidt, 2009). Teachers do not provide students with factual information; rather, they guide them through questioning, encouraging, shaping, and prompting understanding of the situation.

The situations used in CBL such as written cases, vignettes and videotapes are real patient situations that are given to learners in the form of scenarios. Sometimes actors are hired to play the role of patients, providing yet another scenario for students to observe. These situations are examples of challenges that students are likely to encounter during their

professional practice, and enable the students to build clinical problem-solving skills (Barrows, 1996; Neufeld & Barrows, 1974). PBL scenarios illustrate events that are encountered in the real clinical world by professionals in the discipline. These events require understanding about the underlying concepts and processes (Johnston & Tinning, 2001; Rowan, McCourt, Bick & Beake, 2006; Schmidt et al., 2009; Williams, Anderson, & Day, 2007).

Scenarios are a core part of the PBL program, hence the quality of the scenarios presented to students plays a major role in stimulating learning and determining the effectiveness of the approach (Dolmans & Schmidt, 2010; Hung, 2006). The scenarios activate students' prior knowledge which new knowledge is linked to for easy retrieval (Schmidt & Moust, 2010). Mennin, Gordon, Majoor and Shazali (2003) explain that students generally maintain their group for about eight weeks or the entire semester, and meet once or twice a week for two to three hours. An effective discussion of a situation might take two or three sessions, with students' self-directed learning occurring in between sessions.

Types of PBL programs. Some researchers have identified two main varieties of PBL programs: pure and hybrid PBL (Barrows, 1984; Chikotas, 2008; Spalding & Killett, 2010; Smith & Coleman, 2008). In the pure PBL curriculum, an entire course is taught using scenarios, while the hybrid PBL combines PBL with other teaching methods such as lectures (Spalding & Killett, 2010; Smith & Coleman, 2008). In the hybrid form of PBL, there may be 10 or more students in a group with a facilitator. The facilitator is either one of the students or a faculty member. The scenario may be discussed over several sessions. The common theme between the pure and hybrid form of PBL is that both use scenarios and actively involve students. Researchers suggest that depending on students' understanding of the PBL process and

familiarity with it, they may experience challenges such as anxiety, uncertainty, and an increased workload (Kaufman & Holmes, 1996; Lohse & Shafer, 2007).

Schmidt et al. (2009) group PBL curricula into three types: Type I, Type II and Type III. Type I PBL curriculum involves assisting students in constructing a model of the world. In Type I, situations presented to students represent an aspect of the world that learners must comprehend. Students understand the situation from questioning each other in the group and through individual learning. The analysis of the situation in the beginning activates prior knowledge, which is used to build a tentative theory on the principle underlying the problem (Schmidt et al., 2009). Examples of medical schools using the Type I curriculum are Maastricht University in the Netherlands and the University of Missouri-Columbia in the United States.

Type II curriculum involves PBL as a process of questioning. The goal is to enable learners to develop their diagnostic and problem-solving skills by imitating professionals in the discipline (Schmidt et al., 2009). In the Type II curriculum, a significant amount of tutoring time is spent helping learners learn how to be professionals in the field by learning what kinds of questions to ask and how to examine and treat patients rather than focusing on the physiological and biochemical processes underlying patients' situations (Schmidt et al., 2009). Students generate diagnostic guesses about the situation being discussed and consider the accuracy of information using data from signs and symptoms, laboratory results and physical assessment. Students engage in individual study to acquire additional information to meet their knowledge gaps. Examples of institutions implementing Type II curriculum are McMaster University, the University of New Mexico, Maastricht University in the Netherlands and New Castle University in Australia (Schmidt et al., 2009). However, Schmidt et al. (2009) emphasize that the Maastricht curriculum was changed from Type II to Type I in 1970 because faculty members realized that

clinical reasoning skills were not being taught. Since students need to comprehend the underlying principles of patients' conditions, Maastricht emphasizes students' acquisition of knowledge. The Type III curriculum focuses on developing students' self-directed learning skills by encouraging them to use the library, to be independent and to draw from many different resources. Thus, PBL is used as a teaching method to teach students how to learn and to prepare them for lifelong learning (Schmidt et al., 2009). The Harvard New Pathways curriculum is an example of Type III curricula. All the three types of PBL Schmidt et (2009) describe are pure forms of PBL.

Phases of PBL. Chikotas (2008) and Williams et al. (2007) explain that in a pure PBL curriculum, the PBL process involves four phases after a facilitator has presented a scenario to a group of five to 10 students. Phase 1 involves presenting the situation to students and having them brainstorm, explain the phenomena in the situation, and formulate a hypothesis through group discussion. At the end of brainstorming, questions that are important to the situation, and which students cannot answer, become learning issues and form the motivating forces for students' self -directed learning (Dolmans & Schmidt, 2010; Yew & Schmidt, 2009). Also in phase one of PBL, most groups set "the ground rules" on how the group will work, and facilitators make their expectations known to the students (Mennin, et al., 2003). In phase 1, tutors ask questions to guide students and stimulate their thinking so that they arrive at a point where they recognize the need for extensive research on the situation. The second phase involves the group separating to seek information on the scenario through individual research at the library, online, and through contact with experts. In the second phase, students plan and monitor their individual learning. In the third phase, the group reconvenes to discuss the information gathered, debate critically, apply knowledge to the situation, and form new knowledge through

connecting with existing knowledge (Yew & Schmidt, 2009). The discussion allows students to elaborate on information and encourages the retention and transfer of information to the long-term memory (Mennin et al., 2003; Schmidt et al., 2009). In the fourth phase, both the group and individual student reflect on the content and the process of learning (Chikotas, 2008; Williams et al., 2007). Learners are expected to provide feedback to one another on both the quality of information and the way they share their information with peers and colleagues. Furthermore, each student is required to assume a leadership role within the group on a rotating basis. Students in PBL assume ownership of their learning through a self-directed learning process (Biley & Smith, 1998; Gwee, 2009; Miller, 2003; Williams, 2004). All four phases in PBL occur in two or three sessions. Group learning and the use of scenarios have several objectives: to stimulate students' discussion and active engagement in the learning process, develop self-direction and team work skills, and provide contextual learning (Dolmans & Schmidt, 2010; Williams et al., 2007).

Design of scenarios. There is no doubt that a well-written scenario motivates students to learn collaboratively and promotes self-directed learning (Schmidt & Moust, 2010). Situations used in CBL guide students in the acquisition of explanatory, descriptive, procedural, and normative knowledge (Schmidt & Moust, 2010). Explanatory scenarios are used to help students to learn facts, activate past knowledge, and expand on information. This type of scenario enhances the storage and retrieval of information (Schmidt & Moust, 2010). Scenarios that are mainly focused on facts enhance students' understanding of course content but do not activate prior knowledge. Strategic (procedural) scenarios are used to facilitate students' application of a concept. Lastly, problems involving moral dilemmas motivate students in discussing their values about an event (Schmidt & Moust, 2010). Researchers who design PBL have written extensively

about the characteristics of scenarios. A well-designed scenario should support learning the course content and PBL process (Hung, 2006). In PBL/CBL programs, learning the course content is essential as students develop problem-solving skills (Hung, 2006). Hence, the first characteristic of a scenario is that the content of the cases answers one or more of the course objectives to ensure that students are obtaining adequate content knowledge. In addition, the scenario should fit with the students' past experience in order to help students retrieve what they already know about the topic (Hung, 2006; Schmidt & Moust, 2010). The second characteristic of a scenario is that it should be neither too easy nor too difficult, in order to stimulate curiosity so that learners will probe deeper into a topic (Hung, 2006; Schmidt & Moust, 2010). CBL cases should motivate students to develop learning issues or needs and research them. Individual study actively engages learners and prepares them to be self-directed with a continued interest in learning (Schmidt & Moust, 2010).

The third characteristic of a scenario requires that cases are presented in a context that is relevant to what learners will encounter in the future. This is because research on human cognition shows that messages are best retrieved if the context in which they are needed is similar to the context in which the information was learned. Thus, scenarios should have a heading and adequate contextual cues that will activate the stored information (Hung, 2006; Schmidt & Moust, 2010). PBL situations should have adequate cues that will activate discussion and a search for deeper understanding. However, there should not be too many cues, because that can make the learning difficult, and keep students from researching intensively during their self-directed learning (Schmidt & Moust, 2010). Discussing and asking relevant questions about cases are forms of elaboration which promote understanding, the construction of rich cognitive models, recall, and learning (Dolmans & Schmidt, 2010). Another characteristic of CBL

scenarios is that they should enhance the connection of information to existing knowledge (Hung, 2006). Scenarios should be designed to present important basic science knowledge in the context of a clinical situation in order to facilitate the integration of knowledge and enhance students' problem-solving skills. Dolmans and Schmidt (2010) suggest that learning which is rooted within a definite context enhances the transfer of knowledge. The above characteristics facilitate learning the course content in a CBL curriculum (Hung, 2006). Hung (2006) also suggested that students should be engaged in research, reason, and reflection in order to be actively involved in the CBL process. Through researching in CBL, learners develop a deep understanding of the situation. Reasoning facilitates the use of the information researched and develops learners' problem-solving skills. Scenarios that stimulate different opinions and therefore provoke discussion enhance reasoning among the student team members (Weiss, 2003). Reflection is a cognitive process that enables students to synthesize information and form new knowledge (Hung, 2006).

Neufeld and Barrows (1974) argue that PBL situations are learning resources which can be grouped into two categories. The first category of learning resources includes those aimed at stimulating problem-solving skills, such as simulated patients (healthy individuals who are trained to imitate the history and physical manifestations of a real sick person). The second category of learning resources includes providing students with factual information by using a resource person, identified readings, or audio visual aids.

Some challenges identified with PBL programs involve scenarios that are not well designed and facilitators who are too involved or not involved enough. Weiss (2003) explains that PBL scenarios should be ill-structured, meaning not all information about the situation is known and more than one solution is possible. Ill-structured situations represent what students

will find in the real-life environment and as a result they promote a higher level of student thinking. Some PBL programs have had difficulties because the cases or situations are so well structured that they are closed-ended, easy, and do not stimulate students to actively think and develop their own knowledge. Furthermore, some facilitators are too involved, hence limiting students' engagement. If the facilitator is not running the group adequately, students may not explore situations in sufficient depth. A sign that a PBL group is having problems is when members are not actively involved (Dolmans, De Grave, Wolfhagen & Van der Vleuten, 2005). The solution to these challenges includes facilitators being more involved at the initial stage and decreasing their contribution as students become comfortable. Furthermore, facilitators must frequently assess the group's process (Dolmans et al., 2005).

Philosophical Underpinning of PBL/CBL

Researchers have argued that the initial PBL that Barrows (1984) introduced was not based on any specific learning theory or philosophical assumption (Taylor & Miflin, 2008; Pijl-Zieber, 2006). As the PBL method developed and more research was conducted, the assumptions guiding the practice of PBL began to be associated with various teaching and learning theories (Taylor & Miflin, 2008). Most authors agree that the assumptions guiding PBL are currently taken from constructivism (Kemp, n.d; Krishnan, Gabb & Vale, 2011; Taylor & Miflin, 2008; Savin-Baden & Major, 2004) and can also be traced back to other philosophical schools such as metaphysics, andragogy, cognitive learning theory, information learning theory, sociocultural theory, collaborative learning, and social change theory (Johnson, Johnson & Smith, 2006; Kemp, n.d; Savin-Baden & Major, 2004). A description of each philosophy is discussed below.

Metaphysics. Metaphysics involves the development of knowledge using reason. In the western world, the use of logic originated in the fifth and fourth centuries before common era,

with well-known Greek philosophers such as Aristotle (364-322 before common era), Plato (428/348 before common era) and Socrates (470 before common era). The philosophical basis of PBL is linked to some assumptions that date back to Socrates (Savin-Baden & Major, 2004). The Sophists, who started metaphysics believed reasoning should be used to understand human nature, and relied on debate to explain their views. Socrates agreed with the Sophists, who believed in the use of reason to understand the world. He developed a system of inquiry that involves questioning and answering and has come to be known as the Socratic dialogue (Savin-Baden & Major, 2004; "Plato's Shorter Ethical Works,"2010; "Socrates," 2009). Socrates asserted that knowledge cannot be acquired; thus, he used questioning and dialogue to enable his students to understand their positions and to show them the flaws in their arguments (Savin-Baden & Major, 2004). Socrates used dialogue to encourage his students to engage in deeper thinking and discover truth by themselves. Questioning and probing are teaching strategies employed in PBL to motivate students to think about their assumptions and claims when they are presented with a scenario. One PBL assumption is that knowledge should be constructed by the individual learner (Hall, 2007; Vygotsky, 1978). In a PBL program, learners are required to use reasoning skills to find solutions to situations. Through reasoning, students develop their metacognitive abilities.

Plato, who was Socrates' student, did not believe knowledge was unattainable; rather, he proposed that knowledge could be acquired through intuition. Plato proposed idealism, a claim that reality is what one can reason through to gain meaning (Savin-Baden & Major, 2004). Learning, in the view of people who subscribe to the idealistic school of thought should not be coerced but performed in an interactive way. Intuition, sensory stimuli, and logic are skills that PBL students utilize in solving problems. Aristotle, a student of Plato, believed in realism and

explained that reality could be achieved through perception, logical reasoning, and abstraction. In Aristotle's view, teaching involves questioning reality and should help develop a learner's ability to reason and make valid judgments on issues (Savin-Baden & Major, 2004). The notion of using dialogue and inquiry to discover truth reflects an assumption in PBL. In PBL, students are motivated to create their own truths by engaging in questioning and developing practical skills. The Greek philosophers' contribution to education involves advocating for examination, inquiry, and questioning, and arguing that the meaning of knowledge is not specific, but shaped by the learner.

Andragogy. Andragogy is a learning theory that examines the ways adults learn (Rideout, 2000; Savin-Baden & Major, 2004; Spencer & McNeil, 2009). PBL reflects adult learning principles developed by Malcolm Knowles (2005), the main theorist in andragogy. Knowles explains in his theory that adults have an interest in learning when they view the activity to be important, use their previous experience in learning, take ownership for their learning, and demand mutual trust and respect in the learning. Andragogical assumptions that PBL curriculum designers have adapted include beliefs that learning should begin with realistic goals and objectives which students view as important. Furthermore, students must be ready to learn and take control over learning the content and the process. The learning must be practical and practiced at the appropriate time in a safe setting. In addition, students can utilize their prior experience in learning as learners are organized into small groups. Furthermore, PBL capitalizes on adult learning principles by fostering a positive learning environment which recognizes different views; learners are comfortable, and share responsibility in the learning process by choosing their own learning issues and actively searching for solutions to the issues (Pijl-Zieber, 2006). Andragogists believe that students must show interest in their learning and be motivated

in order to change their self-concept and use knowledge in a practice environment (Savin-Baden & Major, 2004; Spencer & McNeil, 2009).

Cognitive learning theory. Cognitive learning theory evolved from rationalism and focuses on learner's internal processing of information which includes processing, memory, and perception (Wilkerson & Gijselaers, 1996). PBL has firm roots in cognitive psychology and reflects John Dewey's (*1859-1952; 1929*) suggestions on education, such as using a situation as the starting point of learning, and designing curriculum around situations instead of subjects (Johnson et al., 2006; Pijl-Zieber, 2006). Dewey, one of the founding theorists in cognitive psychology, proposed that problems are real life examples that can be used in learning to promote a learner's problem-solving and critical thinking skills. Cognitive learning theory is based on assumptions about students' learning. The first assumption involves learners' possession of prior knowledge, which is used to determine the intensity of information processed. Hence, students with prior knowledge in a subject will comprehend the scenario presented to them better than those who lack past knowledge (Weiss, 2003; Schmidt & Moust, 2010; Yew & Schmidt, 2009). The second assumption is that students' prior knowledge must be activated by cues in the environment, such as using a subheading for situations to provide a context to relate new information to and enhance storage in the long-term memory (Dolman & Schmidt, 2010; Schmidt & Moust, 2010). The third assumption is that information is organized in the brain and influences recall. Elaborating information through activities such as discussion, writing notes, dialogue and the resolution of conflicting opinions during learning promotes linking new knowledge to prior knowledge and facilitates the easy retrieval of information from long-term memory (Dolmans & Schmidt, 2010; Weiss, 2003). Finally, motivation is essential in learning as it increases the duration of learning and performance. The situations used should be

challenging in order to motivate students to learn. Scenarios should be neither very difficult nor easy to solve, but slightly beyond the students' knowledge in the course in order to motivate them (Weiss, 2003; Hung, 2006).

Furthermore, Wilkerson and Gijselaers (1996) explain that cognitive processes like metacognition influence learning. Students enter the classroom with prior experiences and an established cognitive structure. As a result, learning should encourage students to utilize their existing knowledge to form new knowledge (Wilkerson& Gijselaers, 1996). Wilkerson and Gijselaers (1996) note that PBL uses three cognitive learning principles. The first principle states that learning is a constructive process and not a receptive one. The second principle states that knowledge about knowing and monitoring learning (metacognition) is essential for learning (Cartier, Plante & Tardif, 2001). The third principle states that social and contextual factors influence learning. The first principle rejects the past assumption that learning provides students with information because the human brain is an empty vessel that could be filled with ideas through repetition. Rather, the first principle involves the notion that learning activates students' pre-existing experience on a topic and links new concepts to existing mental concepts in order to create a cognitive map (Savin Baden & Major, 2004; Wilkerson & Gijselaers, 1996). Wilkerson and Gijselaers (1996) write that students use a self-monitoring skill (metacognition) to learn quickly when they consciously analyze situations and find solutions to identified problems. Metacognition involves students in setting goals about what they are doing, developing steps to achieve their goals, and evaluating their goals (Wilkerson & Gijselaers, 1996). Wilkerson and Gijselaers (1996) explain that students who are taught using situations that are similar to what they will encounter in the professional environment do better in recall and problem-solving when a familiar situation is met. Integrating social context in students' learning will enable them to use

the knowledge acquired when they encounter similar situations in their professional practice (Wilkerson & Gijselaers, 1996).

The assumptions from cognitive theory guide the PBL/CBL approach. For example, the goal of presenting a situation first during CBL is to activate learners' prior knowledge to comprehend new information. Situations enable students to learn in a context because that context serves as a mental framework for saving cues. When the same information is required in a similar problem-solving situation, the student can once again draw on these cues because they have prior knowledge about the subject. Tutors should use strategies such as questioning to activate students' prior knowledge (Van Blankenstein, Dolmans, Van der Vleuten & Schmidt, 2013). Van Blankenstein et al. (2013) explain that in PBL, students who lack basic prior knowledge in the subject being discussed may be strongly disadvantaged in their learning. Group discussions are used in PBL to enable students to elaborate on their past knowledge and stimulate their epistemic curiosity (Weiss, 2003; Schmidt & Moust, 2010). Epistemic curiosity motivates students to engage in collaborative and self-directed learning in order to acquire deeper knowledge about the phenomena in the situation (Weiss, 2003; Schmidt & Moust, 2010). The implication of these cognitive principles in teaching and learning is to design and select teaching methods that are difficult enough to stimulate students' thinking and problem-solving skills (Hung, 2006; Weiss, 2003). Furthermore, teachers should activate learners' prior knowledge and select teaching methods that will develop learners' metacognition. Teaching should be conducted in a team environment that will create an opportunity for learners to challenge one another's thoughts (Hung, 2006; Weiss, 2003).

Information processing theory. Information processing theorists examine methods that teachers use to enhance learners' ability to recall and apply stored knowledge.

Information learning theorists' major interest is to understand brain function. They examine how information is processed instead of examining the process of learning (Orey, 2001). Information processing theorists examine organized information structures kept in the brain and apply the knowledge to understanding messages (Orey, 2001). The three sections in the brain that are involved in processing information are: the sensory register (SR), short term memory (STM) and long-term memory (LTM) (Orey, 2001). Orey (2001) explains that hearing and vision are two sensory registers. Information that is not used decays in the sensory register. The short-term or working memory has limited strength, holding five to nine items at a time. Short-term memory is the place of alertness where reasoning occurs. When information in the sensory register is focused, it is transferred to STM. Rehearsal enhances the storage of information in STM, and interference is the cause of forgetting in STM (Orey, 2001).

LTM involves everything that people know and can perform. Messages stored in LTM become useful through elaboration. Orey (2001) explains that elaboration involves linking new knowledge to prior knowledge. Hence, instructors must comprehend what students know already or offer them some prior knowledge so that the students can link new information to their existing knowledge (Orey, 2001; Van Blankenstein et al., 2013). Information in long-term memory is stored as either declarative, procedural, episodic, imagery, or strategic knowledge (Orey, 2001). Forgetfulness in LTM is a result of an inability to retrieve messages because the pathway for storing the information has been forgotten (Orey, 2001). This theory involves the belief that when students encounter a new experience it stimulates their previous knowledge about the concept (Torp & Sage, 2002; Savin-Baden & Major, 2004). Albanese (2007) reported that information-processing theorists make an assumption that encoding information is increased when the context of learning is similar to the context in which it will be applied. Three factors

are essential to effectively process information: activation of prior knowledge, encoding specificity, and elaboration of knowledge. Prior knowledge is what is stored in long term memory and serves as a structure that needs to be activated before new information can be acquired. The second condition, encoding specificity involves the assumption that retrieval cues that are required to activate a message are learned together with the information so that effective recall of ideas in the future is promoted. It is easier to acquire new knowledge when prior knowledge can be retrieved easily. This happens when the context in which the new knowledge is being disseminated is similar to that in which it was acquired (Cartier et al., 2001; Van Blankenstien et al., 2013). Students retrieve information well when there are opportunities to expand on information during learning. The various means of elaboration are: repetition, responding to questions, taking notes, group discussion, organization, and critiquing a statement (Cartier et al., 2001; Dolmans & Schmidt, 2010; Yew & Schmidt, 2009).

Apart from the factors identified to enhance the encoding and retrieval of information, information-processing theorists have defined three approaches to learning: rote (surface) learning; meaningful (deep) learning and strategic learning (Albanese, 2007). These approaches all enhance learning. Rote learning is facilitated by the position of an item on a list, repetition, the interference of previous information, organization, the use of mnemonics in encoding, and context (Albanese, 2007). In contrast, meaningful learning is enhanced by the learner identifying usefulness, associating current information with previous learning, organizing information, and elaborating on learning through strategies such as note taking, discussion and asking questions in class (Torp & Sage, 2002; Savin-Baden & Major, 2004). Strategic learning is utilized by students when they aim to acquire the highest mark. Thus, students arrange their time, distribute tasks, use past examination questions to predict questions, and are conscious of cues about marking

schemes in order to achieve a maximum result. PBL learners use all three approaches in their learning. Students initially start with a surface approach and progress to deep and strategic approaches to learning (Grant, 2006; Savin-Baden & Major, 2004). Dolmans, Wolfhagen, and Ginns (2010) also suggest that PBL students use deep rather than surface approaches to learning. However, Dolmans et al. identify that students shift their approach to learning as they spend more years in a PBL curriculum. In a Dolmans et al. study with medical students in Maastricht, first year PBL students used more deep approaches to learning than second-year students. The study findings show that both first-year and second-year medical students used deep approaches to learning rather than a surface approach. In PBL, students elaborate on information through explaining concepts to their peers, which therefore leads to deep learning and better recall of information (Van Blankenstein et al., 2013). In addition, elaboration activates prior knowledge which is used as the foundation for new learning. In this way, it enhances the acquisition of new knowledge when such knowledge is linked to prior knowledge (Van Blankenstein et al., 2013). To enhance students' quick recall of information, PBL curriculum designers use major concepts from information-processing theory, such as the activation of prior knowledge and elaboration of knowledge.

Sociocultural theory. The main proponent of sociocultural theory is a Russian lawyer and psychologist, Lev Semyonovitch Vygotsky (Vygotsky, 1978). Sociocultural theory involves the belief that learning is an active process that depends on the context and response to the behaviour of people in that context (Arroio, 2010; Britton, 1990; Hall, 2007). The learner is actively involved in constructing knowledge in a context that is natural, and in interacting and negotiating meaning with similar people who will apply the same concepts, language and symbols in their fields (Hall, 2007; Pijl-Zieber, 2006). The focus of sociocultural theory is the context in the

learning process. The core concepts in sociocultural theory are psychological tools, social setting, mediation and building knowledge in the zone of proximal development (ZPD) (Hall, 2007; Vygotsky, 1978). Psychological tools are described as specific human activities such as speech/language, signs, symbols, texts, and mnemonic skills used to communicate thoughts (Hall, 2007; Vygotsky, 1978). Vygotsky (1978) used children to test his theory. He found that technical thinking, which forms the first stage of cognitive development in children, is built through their use of psychological tools such as language. Children use technical thinking to make practical decisions. Furthermore, Vygotsky explains, a child's brain has all the components required for future cognition which will be used at the appropriate time. Sociocultural theorists suggest that children's culture plays a key role in intellectual development and without culture it is unlikely that cognition will develop (Hall, 2007; Vygotsky, 1978). Vygotsky (1978) suggests that knowledge is socially constructed and depends on the social environment, which is a medium where learners can relate to each other and use new skills (Hall, 2007). Language and dialogue are mediated activities that can be used to help learners develop higher mental function.

The next concept, mediation, involves using psychological tools to enhance memory, including the recall of information (Hall, 2007; Vygotsky, 1978). Vygotsky (1978) writes that human memory involves the sequential arrangement of information; hence, a recall of information demands that the individual identify the logical link between concepts. In his discussion of mediated memory, Vygotsky states that higher mental skills are the outcome of mediated activity. He also claims that cognitive growth is formed socially and transmitted culturally. Lastly, Vygotsky proposes the zone of proximal development (ZPD), which describes activities that learners are unable to perform independently but will require assistance with from an adult. ZDP is referred to as "flowers of development" (Vygotsky, 1978 p.86), because it

describes skills that are yet to be formed and for which mental development will occur in the future. Vygotsky (1978) explains that in the future, children will be able to independently perform intellectual activities that they presently need assistance with. The function of teachers is to promote learning by creating a ZPD in order to develop learners' cognition. Vygotsky suggests that effective learning leads to mental development and the ZPD. The ZPD involves generating different types of internal cognitive processes that will be used only when children are interacting with individuals in their setting and in a cooperative way. According to Vygotsky, the ZPD is developed when learning is ahead of cognitive growth. Social activities such as play and lectures help develop a ZPD. Hall (2007) argues that the main goal of sociocultural theory is to develop learners' cognition so that they can practice efficiently in their professions. Thus, it is important to review sociocultural theory and its effect on knowledge acquisition and cognition.

Sociocultural theorists claim that learning involves developing many specialized internal processes (ZPD) that can be used to solve problems in different situations. For human beings, learning is an active process and occurs in a social context. Learning is modified by the social setting, culture, and tools in the environment (Hansman, 2001). Thus, educators should create a natural context where learners will socially construct knowledge through dialogue, interaction, and the use of tools. Also, the learning context should involve a similar group of learners who will use tasks, language, and concepts that will be utilized in the professional setting (Hall, 2007). Hansman (2001) believes that developing higher mental function involves interactions between learners and co-learners and using tools in a sociocultural setting. From the sociocultural view, students learn when they are actively involved with their peers within a culture (Hansman, 2001).

Another belief of sociocultural theory is to enhance learning using psychological tools. The psychological tools are signs, symbols, speech, and concepts used in the discipline and must be presented before the learning activity. Vygotsky argues that learning precedes cognitive development. To ensure that cognitive development occurs, students must be pre-taught so that they will be able to comprehend and learn to use the concepts, as well as develop the internal cognitive skills they will require in the future (Hall, 2007). Furthermore, teachers and adults are to provide support to learners to enable them to acquire confidence in using the concepts. The support provided includes teaching materials such as books, movies, and simulations; providing timely feedback; using challenging scenarios; and involving learners in their assessment process (Arroio, 2010; Hall, 2007; Hansman, 2001; Vygotsky, 1978). Sociocultural theorists suggest that students' learning environment should be similar to the real world environment where they will practice (Hansman, 2001). Hence, the model fits well with CBL, which guides student learning by using scenarios based on the real-world experience of people in the field. Presenting a scenario at the initial phase of CBL is consistent with sociocultural theorists' beliefs about the importance of providing pre-teaching first to learners.

Constructivism. The philosophical basis of PBL is closely linked to constructivism, the belief that learners construct meaning based on their interaction with the course material, environment, fellow students and their overall goal (Hein, 1996; Kemp, n.d). Constructivists such as Dewey, Piaget and Vygotsky disagree with the view that there is "knowledge out there" that is independent of learners and can be discovered. Rather, constructivists believe learners create their own knowledge within a social context (Kemp, n.d; Hein, 1996). There are different types of constructivism; psychological constructivism rooted in Piaget and social constructivism derived from Vygotsky. Dewey's work originated from cognitive learning theory (Kemp, n.d;

Pijl-Zieber, 2006) which has been explained in separate subsections above in order to enhance an understanding of constructivism and the philosophies underpinning PBL. In this section, the general assumption of constructivism will be discussed. Constructivists suggest that students' learning should be learner-focused, with students actively participating in their learning rather than being passive receivers of information. PBL supports student-centered learning by empowering students in decision-making and searching for information from different sources while the instructor serves as a guide. Furthermore, instructors do not provide information to students in PBL; instead they provide learners with opportunities to create their own reality by guiding them to find answers to questions, sustaining the learning process, probing students' knowledge, engaging all students, and providing constructive feedback (Dolmans, Gijselaers, Mouist, et al. , 2002; Dolmans et al., 2005; Hein,1996). Hein (1996) suggests that PBL facilitators focus their teaching on learners instead of the teacher. Dolmans, De Grave, Wolfhagen, and Van der Vleuten (2005) indicate that learning is the process whereby students create meaning and develop their individual interpretations of the world using their experiences. Learning, according to Dolmans et al., is a constructive process that involves students' active participation and should be directed towards activating prior experience, elaboration, and better understanding. Reality is how the individual experiences the world while using the brain as a tool for designing knowledge. Learners are active in constructing their knowledge by deciding what to learn and interpreting information from the environment (Dolmans et al., 2005; Hein, 1996).

Constructivism involves the belief that intellectual disharmony enhances learning, an assumption rooted in Dewey's philosophy. Dewey argues that intellectual conflict is essential for learning to occur (Pijl-Zieber, 2006); thus, learning should begin with a situation. Constructivists have stressed that learners create their own knowledge when the situation resembles a real-life

situation and is linked to previous knowledge (Savin-Baden & Major, 2004). PBL reflects the assumption of situations fostering learning by starting the learning process with a scenario. Another assumption in constructivism is the belief that knowledge is created from a social context when the learner discusses and negotiates meaning (Dolmans, Gijselaers, Mouist et. al., 2002). The social construction of knowledge is extensively discussed in Vygotsky's theory, which is explained in another section of this dissertation. The constructivist belief in communal creation of knowledge is reflected in PBL through students learning in teams with a common goal and constructing their own knowledge (Dolmans et al., 2005; Savin-Baden & Major, 2004). Furthermore, using clinical situations in PBL fosters constructive and contextual learning processes (Dolmans et al., 2005; Pijl-Zieber, 2006). Building on the social creation of knowledge, constructivists believe that students' retrieval of most information is enhanced when there is a commonality between the learning context and the application context (Chikotas, 2008). Schmidt et al. (2009) support the view that PBL is linked to constructivism because PBL supports contextual, group learning; self-directed learning; and student agency. Kemp (n.d) recommends using a combination of assumptions from the various views of constructivism to acknowledge that knowledge creation is influenced by both the individual cognitive process and the social context. Kemp argues that a particular strategy of instruction should not be labelled as constructivism because constructivism provides an explanation about how students learn. Kemp emphasizes that when constructivist assumptions guide CBL, the focus of learning should be on the social environment and acceptance of alternative views from learners and instructors, since the instructor is not all-knowing in the learning context. The goal of learning should be on appreciation of students' comprehension rather than covering of content or passing on of information.

Cooperative learning. This is defined as a teaching and learning approach in which small groups of students work together to optimize individual and peer learning to achieve a goal (Johnson et al., 2006; Johnson, Johnson & Smith, 2014). In cooperative learning, there is a belief that goals can be achieved when other members in the group participate (Albanese, 2000). The focus of cooperative learning is to establish mutual goals and achieve mutual rewards for a team (Albanese, 2000). Johnson et al. (2006, 2014) argue that in the present world, a new approach to teaching is needed because the traditional approach is faulty. The traditional instruction method assumes that the teacher owns knowledge and transfers it to students who are passive recipients. Students in the traditional approach are expected to memorize and recall information when needed (Johnson et al., 2006, 2014). The active learner centered approach relies on the assumption that students collaborate with each other and their instructor to generate meaning from the course material, leading to the construction of their knowledge. Johnson et al. (2006, 2014) believe that learning is a social activity because in order to construct knowledge, students relate to their peers and instructors in a community of learners. Cooperative learning draws assumptions from the social interdependence theory which dates to the 1900s and the Gestalt School of Psychology, whose renowned theorists included Kurk Koffka, Kurt Lewin, and Morton Deutsch (Johnson et al., 2006, 2014). The three types of social interdependence identified in social interdependence theory are positive interdependence, negative interdependence and no interdependence (Johnson et al, 2006, 2014).

In positive interdependence, participants in a group understand that they can attain their objective when others in the group achieve their goal. Positive interdependence leads to cooperation and group members facilitate everyone's success by working together to achieve a goal (Johnson et al., 2006, 2014). With negative interdependence, group members believe that

when a member with whom they are competing achieves the goal, no one else will. Negative interdependence leads to competition, which prevents everyone from achieving a goal. No interdependence is a situation in which each group member can achieve his or her goal independent of the others, regardless of whether the others achieve their goal (Johnson et al., 2006, 2014). Thus, in a no-interdependence context, group members do not socialize, but work independently to achieve a goal. Johnson et al. (2006, 2014) suggest that the type of collaboration designed in a program determines how students interact with each other and what outcome will be achieved.

To promote collaboration among students, the following conditions should be met in the group; positive interdependence, individual accountability, interaction, social skills, and group processing (Johnson et al., 2006, 2014). As earlier explained, in a positive interdependence environment, the group members connect and work together to achieve a desired outcome. The members believe that one cannot succeed without other members succeeding; thus, the people in the group have the perception they are in a "sink or swim" learning environment (Johnson et al., 2006, p. 2:10). Positive interdependence is the core of collaborative learning. The second condition for collaborative learning is individual and group accountability. Every member of the group is responsible for contributing to the group learning and there are no "hitch-hikes" (Johnson et al., 2006, p. 2:11) on peers' work. Each student share of the group work is assessed and feedback is given to the student and group in order to identify those who need assistance in achieving the learning outcome. Students can also explain their individual contributions to group learning with the goal of strengthening every group member (Johnson et al., 2006, 2014). The third condition, promotive interaction, involves learners enhancing each other's learning by encouraging, supporting, helping and praising one another in the learning community (Johnson et

al., 2006, 2014). Meeting in person with their peers, students share their knowledge by teaching their peers and helping to link past knowledge to present information (Johnson et al., 2006, 2014).

The fourth condition for cooperative learning is teaching students the correct social skills essential for learning in small groups. Johnson et al. (2006, 2014) suggest that for the group to function effectively, members should be taught interpersonal skills such as decision-making, trusting one another, leadership, and conflict management. Just as they are taught academic skills, students in active learning have to be taught interpersonal skills to complete school work (Johnson et al., 2006, 2014). The fifth and last condition needed for group learning is assessing the group process. This involves assessing how the group is meeting learning goals and promoting a good work environment (Johnson et al., 2006, 2014). The tutor should ask team members to share group behaviours that enhance learning and those that do not, and how to change behaviours that prevent team work. The group should also share their successes and congratulate each other (Johnson et al., 2006, 2014).

In programs that use collaborative learning, students work in cooperative groups. For such programs to succeed, administrators and faculty members have to work in cooperative teams as well (Johnson et al., 2006, 2014). Having administrators and faculty working on cooperative teams ensures consistency and enables tutors to discuss and share successes about their teaching. In addition, cooperation makes it easier to share challenges related to implementing the new curriculum. Faculty members can jointly design and teach courses to promote integrating the curriculum and sharing expertise (Johnson et al., 2006, 2014). Johnson et al. (2006, 2014) explain that research into programs using collaborative learning has shown increases in students' academic achievement, self-esteem, and positive interactions with one another. Considering the

conditions essential for cooperative learning and how such learning involves small groups of students working together to achieve an outcome and relating it to the PBL model, Albanese (2000) explains that PBL is guided by cooperative learning.

Social change theory. Paulo Freire (1921- 1997), a well-known international educator and teacher from Recife, Brazil, is the founder of social change theory (Bhattacharya, 2011; Freire, 2000). Freire's (2000) work focuses on the education of adults. He argues that it is only by teaching illiterates to read and write that they will become conscious of their social conditions and fight for their own liberation. Freire associated education with critical awareness and used it as an instrument to free the masses (Bhattacharya, 2011). Freire's theory of social change was used to educate and raise the consciousness of marginalized people and enable them to fight against social injustice (Bhattacharya, 2011; DasGupta et al., 2006). Through adult education, Freire transformed the life of men and women in Brazil by enabling them to contribute to decisions in the country through their vote and request for economic and industrial changes (Bhattacharya, 2011; Freire, 2000).

Freire argues that the poor are knowledgeable, especially in worldly issues, except that they do not have the skills to read and write. Freire developed his philosophy of teaching and learning from his belief that illiterate people have knowledge in some aspects of life and hence their education on learning how to read and write should be different. Freire proposed that educating illiterate adults should begin with what they know and move to what they do not know (Bhattacharya, 2011). He also suggested using a constructivist model to teach adults so that they could assume ownership of their learning. The next section will explore Freire's assumptions about adult education.

Freire criticizes traditional education and describes it as a 'banking method' (Bhattacharya, 2011; DasGupta et al., 2006; Freire, 2000). In the banking type of education, the teacher is seen as a narrator and depositor of information, while the student is described as a container that must be filled with the information. Freire (2000) suggests that the main roles of the student in banking education are receiving, storing, and memorizing the material given, none of which reflects reality. Thus, students are unable to develop the curiosity required for transformation. Freire recommends liberation education, where both teachers and students are active in creating knowledge. In liberation education, teachers recognise power differences and address them openly while respecting learners' contributions (DasGupta et al., 2006). Problem-posing is the main teaching method in liberation education, unlike the deposition of knowledge in traditional education (Bhattacharya, 2011; DasGupta et al., 2006; Freire, 2000). Problem-posing education involves the teachers presenting the learning material as a situation to students and does not discuss the content. The situation is identified by the students and connects both teachers and students together. The focus in problem-posing learning is on dialogue. Instructors do not only teach but are also being taught by the students as they coordinate the discussion. Freire (2000) asserts that the people in problem-posing education are not considered students, but people who possess great amounts of knowledge and must be respected. Also, the goal of learning is to develop critical thinkers and individuals who will seek freedom and transformation. Problem-posing education stimulates creativity, genuine reflection and understanding of the real world. Students become conscious that they are part of the world and must contribute to changing their condition when experiencing domination (Freire, 2000). Freire (2000) posits that "there is no neutral education" (p. 34). Education can serve two purposes: either to shape students to fit into current social conditions and make them follow the educators' guidelines; or to lead students to

liberation where they become aware of social inequalities and participate in changing their society.

The CBL-PBL model employs the concepts that Freire (2000) espouses: problem-posing education, active involvement of students in learning, dialogue, power-sharing, and the mutual creation of knowledge by learners and instructors. DasGupta et al. (2006) note that problem - posing learning is similar to problem–based learning and forms the basis of inquiry-based learning. It is important to examine Freire's framework on education to identify how social issues such as power and freedom are addressed in teaching and learning. For example, Rather (1994) used Freire's framework to explore the way in which returning registered nurses students (RRNs) experienced the power imbalance in their baccalaureate education. The RRNs reported that instructors and schools had more control and that the students did not have power. The students felt they were forced to return to school and were being oppressed at school because their past education and experience were not recognized by their instructors. The authors stressed that when interacting with students, the teachers' attitudes are very important. Students may experience the instructors' behavior as oppressive.

Although the philosophical assumption guiding CBL/PBL is mainly rooted in constructivism, PBL/CBL draws on assumptions from the other schools of thought discussed above. Many researchers have argued for the adoption of an integrated approach to understanding the assumptions guiding learning in CBL/PBL (Kemp, n.d; Savin-Baden & Major, 2004).

Models of PBL Curriculum

Different models have been employed in sequencing the content of a PBL curriculum. The most common frameworks are a discipline-based curriculum, an integrated curriculum (horizontal and vertical integration), a core course and option course, a spiral and module-based

curriculum, an organ-based curriculum, nursing module, known to unknown and personal to public curricular (Albanese, 2007; Begoray & Banister, 2005; Grant, 2006; Ornstein and Hunskins, 2004; Venken, Valke, Maeseneer, Schuwirth & Derese, 2009). Ornstein and Hunskins (2004) suggest that the philosophical views of curriculum developers influence the way in which they arrange content. Studies have shown that different philosophical views have influenced the way content is organized. A discipline-based curriculum involves sequencing the content of the program based on specific disciplines (Venken et al., 2009). For example, Year 1 can focus on the basic sciences, Years 2 and 3 can be centered on the biomedical basic sciences which might include two and half years of learning in the clinical disciplines and one and a half years of clinical rotations.

An integration curriculum involves arranging the content that learners are to study by linking facts and principles to practice. Between the theory and practice that were stressed in an integrated curriculum, learners are expected to demonstrate their understanding of the relationship between the two (Begoray & Banister, 2005; Grant, 2006; Ornstein & Hunskins, 2004). An integrated curriculum is not arranged based on individual disciplines, and anticipates that students will be doing the integrating. An integrated curriculum in medicine involves studying human biological systems such as cardiovascular and respiratory; their associated anatomy, physiology, and biochemistry (Drake, 2014); and an introduction to the clinical component of the curriculum during the academic year. Begoray and Banister suggest that curriculum designers should integrate cognitive components of the curriculum with both the affective and spiritual components. According to Venken et al. (2009), an integrated contextual curriculum emphasizes the patient, student, and community, and problem-based and evidence-based education. For example, Venken et al.'s institution designed an integrated PBL curriculum

that involves a systematic sequence of units and is delivered in four-to-six-week blocks, during which major content from different disciplines is delivered in an integrated way. Four curriculum themes ran through the entire program each year and included an emphasis on skills, an exploration of the health system, and problem solving. In addition, in years 3-6, each student had to design an individual research project.

Horizontal and vertical integration are the two ways of merging curriculum. Horizontal involves arranging curriculum content in a way that integration occurs between subjects. For example, Venken et al. (2009) explain that they achieved horizontal integration by arranging their basic science subjects into themes that emphasize a specific organ rather than teaching each organ as an independent discipline. Vertical, also called the spiral model, entails integration between clinical and basic sciences with core topics in the sciences being repeated on many occasions in the program (Patrick, Huges, Toohey & Dowton, 2006). Vertical integration permits the teaching of a combination of core science knowledge and clinical knowledge. Venken et al. (2009) noted that scenarios which are designed from real clinical situations can be used to achieve vertical integration. For example, in the final two and half years of the PBL program in Venken et al.'s school, vertical integration was achieved by facilitating tutorials on body systems from a clinical perspective. Curriculum designers use the spiral model when they sequence content so that learners review some subjects at a more complex level as they advance in the program. Grant (2006) explained that when integration is well organized, each discipline will be able to monitor its contribution to the entire curriculum.

Core and Option methods are used to organize curriculum in order to decrease overload (Grant, 2006). It is important that curriculum designers indicate the content that is mandatory and content that is optional. Content is considered as a core subject when it forms a central and

compulsory component of the curriculum. Grant (2006) recommends that all stakeholders in an education program be involved in determining core content. Furthermore, curriculum designers must keep the vision of the institution in mind in choosing core content. A module-based method is used to arrange curriculum content in a self-contained unit of the program (module). Schmidt et al. (2009) concur with Grant that each module must focus on a theme. The themes in medical education have been developed from body systems, i.e., cardiovascular and gastrointestinal (Schmidt et al., 2009). The modules are designed using frameworks on curriculum and each must have its own objectives, tasks, and evaluation methods.

Sequencing curricula using organs means that the content is arranged following the systems of the body. Albanese (2007) writes that organizing PBL in a medical curriculum is compatible with an organ-based method because cases in PBL are made following different organs of the body. According to Albanese, in PBL, patients' situations are discussed in an organ system. However, Albanese explained that there is a challenge in having PBL organized in an organ-based manner because of the difficulty in obtaining facilitators trained in organ-based methodology, since medical schools are organized around disciplinary departments such as pathology, anatomy, and surgery.

The next framework used to sequence curriculum is the nursing model (Rideout, 2000). CBL, a version of PBL, uses the nursing model in its arrangement. Curriculum content is arranged to provide students with a holistic view of a person and not specialty areas. An individual's life is presented as a continuum, from childhood through early adulthood to late adulthood, covering healthy individuals and ill persons. Concepts included in a scenario are age, gender, culture, and health condition (B. Williams & C. Ross, personal communication, November 9, 2010). Furthermore, some institutions organize their curriculum content by

beginning from what students already know and building on their experiences (Gavin, 2010; Ornstein & Hunskins, 2004).

To conclude, there are several ways to sequence the content of a CBL curriculum. However, the spiral method which integrates basic science information with clinical situations is consistent with the goal of PBL in helping students to apply their theoretical knowledge to practice. It is essential to research which of these arrangements enhance faculty and students' successful transition to and achievement of CBL goals in modern nursing education.

Faculty and Student Experiences with a CBL Program

Since the inception of PBL, many studies have been conducted to examine its effectiveness. The studies have shown that PBL has mixed results (Alan, 2009). Alan (2009) suggests that the four main objectives for using a PBL curriculum are structuring knowledge, developing clinical reasoning, developing self-directed learning skills, and enhancing intrinsic motivation. PBL researchers concur that clinical reasoning skills cannot be taught (Alan, 2009; Schmidt et al., 2009). On the other hand, research has revealed that students in PBL programs have advantages over students in conventional programs when it comes to student appreciation of their learning, motivation, problem-solving skills, and the development of lifelong learning (Alan, 2009; Farrow & Norman, 2003; Johnson et al., 2006; Schmidt et al., 2009; Tiwari, Lai, So & Yuen, 2006). The findings from studies that compared the PBL approach to others on students' knowledge have been inconclusive. PBL students either show or do not show a difference on total knowledge gained (Alan, 2009; Farrow & Norman, 2003; Schmidt et al., 2009). The difference in results has been attributed to many factors such as methodological approaches, problems with data analysis and synthesis, and comparing different PBL curricula (Alan, 2009; Farrow & Norman, 2003; Newman, Bossche, Gijbels et al., 2004; Schmidt et al.,

2009). PBL researchers explain that research conducted in the field of education often cannot use random assignments since participants know which group they belong to, and may alter their behavior accordingly. Furthermore, the PBL approach involves a combination of different educational methods used to enhance students' learning; it does not consist of one treatment that can be subjected to experimental investigation. Furthermore, because different types of PBL studies examine different variables, drawing a comparison among these studies is described as comparing apples and oranges and is bound to produce different results (Alan, 2009; Schmidt et al., 2009).

Researchers who study CBL/PBL have documented faculty and students' perceptions of the CBL approach. Five relevant articles about faculty experiences with CBL curriculum were retrieved for this review. Kaufman and Holmes (1996) and Grkovic (2005) reported that the faculty members involved in facilitating a CBL curriculum were satisfied with their roles and the program. However, the other three articles suggest that faculty members had some anxiety related to their transition to a CBL program. Faculties were worried that losing control over students' learning would result in a deterioration in students' knowledge of basic science (Darvil, 2003; Kaufman & Holmes, 1996; Lekalakala-Mokgele, 2010). These findings from faculty create awareness that transition from a traditional to a CBL curriculum is often associated with anxiety. The details of the studies of faculty experience with a CBL/PBL curriculum are provided below.

Faculty experience. Grkovic (2005) writes that the transition to PBL at Melbourne medical school in Australia was less stressful and a positive experience for the faculty. The faculty had the opportunity to collaborate with other disciplines such as anatomy, physiology, biochemistry, pathology, and pharmacology to design scenarios for the curriculum content.

Through this integration, students obtained a holistic picture of their learning before beginning their clinical practice. Grkovic's findings about faculty experience with CBL is supported by Kaufman and Holmes (1996) who conducted a survey involving 88 tutors in the Faculty of Medicine at Dalhousie University in Halifax, Canada. They reported that 88% of faculty members were satisfied facilitating in a PBL program. The tutors rated the PBL program as better than the traditional program because it increases students' interest and zeal and reasoning skills, enhances the total value to the students, and promotes satisfaction among individual faculty members. However, the faculties in this study were concerned that PBL students' factual knowledge in the core sciences had decreased. The tutors were not happy about the pass/fail evaluation system and were unsure about when to intervene during a PBL session. They were also uncomfortable handling difficult sessions.

.Lekalakala-Mokgele (2010) conducted a study of four nursing schools in universities in South Africa and found that facilitators were worried that PBL students might not cover the expected content for the program. These facilitators taught and had been educated in the traditional approach and believed there were sets of objectives to be met and it was their responsibility to make students achieve those objectives. They were worried about losing control during the teaching process and felt inadequately prepared at the beginning (Lekalakala-Mokgele, 2010). However, during the transition, the facilitators in this study changed their perception about control of the learning process and welcomed co-learning with the students. Darvil (2003) concurs with Lekalakala-Mokgele's findings as the facilitators in her case study had difficulty balancing control in terms of deciding when to remain inactive and when to participate in facilitating students' learning.

Students' experience. Similarly, studies that looked at students' experiences with CBL programs found mixed results. Ten articles were retrieved on students' experience with CBL. Eight of the 10 authors reported that students had a positive experience with CBL (Alavi, Cooke & Grove, 1997; Darvil, 2003; Lohse & Shafer, 2007; Rowan et al., 2009; Schmidt et al., 2009; Spalding & Killett, 2010; Williams et al, 2012). The students indicated that they appreciated their learning, were engaged, increased their knowledge, used deep learning skills, improved their recall of information, and increased their clinical reasoning skills. In addition, the students perceived that they had advanced in their leadership and team-building skills, provided holistic care, and integrated theory into practice. Students from PBL curricula indicated that they were open-minded, had increased their critical thinking skills, and were self-directed in their learning (Alavi et al., 1997; Darvil, 2003; Lohse & Shafer, 2007; Rowan et al., 2009; Tiwari, Lai,So & Yuen, 2006; Williams et al, 2012). Two studies reported negative student experiences with CBL curricula (Biley, 1999; Smith & Coleman, 2008). The students in these two studies were not happy with the CBL process as they were uncertain about their learning and needed direction about what to learn. They found the CBL approach to be time consuming. The findings about the students' experience reveal that although most students are satisfied with the CBL approach, they do have issues concerning transition. This makes transition to CBL an essential area to research in order to promote effective student and faculty transition to CBL. The details of research into students from other disciplines with CBL curricula follow.

Spalding and Killett (2010) studied occupational therapy (OT) students in a PBL program using a questionnaire and focus group interview to assess student views on the effectiveness of PBL. The findings showed that students valued their learning because the scenarios engaged them in the real clinical context of providing interventions as occupation therapists. However,

the students did not like identifying their own learning objectives, as they found the task difficult and needed more guidance from their facilitators. The authors indicate that PBL does bridge the gap between theory and practice.

Similarly, Lohse and Shafer (2007) conducted a descriptive study with 52 PBL graduate students in a nutrition course to describe and evaluate the students' perceptions of PBL. The results indicated that the students perceived an increase in total knowledge, use of deep learning skills, and leadership skills. In addition, the students indicated they could remember more material (from 40.5% to 54.6%) and understand nutrition materials. They were also more confident in their problem-solving skills and ability to learn independently and work as a team. The students rated their learning experience as positive, because content was challenging, interesting, and comprehensible. However, the students indicated that though the course content was tolerable, it was heavy. Schmidt et al.'s (2009) findings support those of Lohse and Shafer. Using a sample size of 270 students to assess the effectiveness of PBL, Schmidt et al. conducted a comparative study between PBL medical and conventional medical students at the University of Maastricht. The results show that the PBL students were better than conventional students at integrating their biomedical knowledge with clinical knowledge. Furthermore, PBL students had more advanced interpersonal skills (communication and team building skills) than conventional students. PBL students also performed better on medical skills; they enjoyed their instructional method and completed their program earlier than the conventional students. However, there was a small but significant difference between PBL and conventional students in the areas of medical knowledge and diagnostic reasoning. PBL students on average gained only 3% over conventional students on medical knowledge and 5% on diagnostic reasoning. Alan (2009)

affirmed that PBL can have less of an effect on knowledge acquisition and more of an effect on knowledge application.

To explore the experience of transition to work as an RN, Alavi et al. (1997) conducted an interview among 26 graduates of a baccalaureate nursing program in Australia. The results showed that all the students credited their PBL education with fostering in them the ability to work as a team, because the group process skills they acquired at school were directly transferred to their work. Furthermore, the students said that their clinical reasoning, such as identifying learning needs, investigating, making clinical judgments, and developing a care plan during their studies, were applicable to their clinical practice.

To examine the long-term effectiveness of PBL program on practice, Rowan et al. (2009) completed a cohort study on midwives in a PBL program in the United Kingdom (UK). They found that the PBL approach enabled graduates to access information and develop questioning and critical thinking skills. The students indicated that they viewed pregnant women as a whole in practice because of their theoretical preparation. The authors concluded that the students applied and used the knowledge acquired from their research on scenarios in their clinical work and thus were connecting theory to practice. Similarly, the diploma nursing students in Darvill's study (2003) reported that they used their previous knowledge in their learning, integrated new knowledge with past knowledge, and utilized the cultural knowledge in clinical practice.

Williams et al. (2012) conducted a focused ethnography with 45 CBL graduates to determine the influence of CBL in preparing the graduates for professional work as RNs. The results indicate that CBL program graduates were more conscious of themselves; they constantly sought feedback on their performance. The graduates were open minded, and thought critically by examining different aspects of an issue. The nurses from the CBL program advocated for their

patients and viewed patients' holistically and not only as sick persons. CBL graduates were confident about their knowledge, knew where to seek information, had good team-work skills, were able to handle disputes, and took up leadership roles. The authors conclude that CBL is an appropriate instructional method to provide future nurses with knowledge, skills, and abilities to work confidently in a 21st-century health care setting.

Some students have reported negative experiences of shifting from traditional programs to PBL programs. For example, Smith and Coleman (2008) conducted a focus group study with 11 registered nurses who took a one-year PBL course to become registered as pediatric nurses and found that these students reported intense negative feelings about the PBL process. These students, who had previous nursing education that used a lecture method, started the PBL program with their prior learning styles and beliefs about teaching and learning. The students felt insecure about the intensity of their learning. They expressed a desire for more direction and structure in the learning process in order to be sure they had acquired adequate basic knowledge. Furthermore, the students indicated that PBL instructors were inflexible, did not recognize their past experience, and spent excessive time on the steps in the PBL process. However, in this same study, six months after completing the PBL program, an interview with the same students revealed that the participants' perceptions had changed. They perceived themselves using deep learning skills, working cooperatively in their team, being more confident and assertive, and challenging common practices. The authors concluded that the movement from a traditional to a PBL curriculum was difficult for the students and the students required adequate preparation. Furthermore, instructors must provide frequent feedback to students, listen to students' views and adopt a flexible approach to the learning process.

Biley's (1999) findings support the research of Smith and Coleman (2008). Biley conducted a study on the experience of undergraduate nursing students in a PBL program. The findings revealed that students experienced increased tension with the process of change and the PBL process. The initial tension with the change was attributed to the students being exposed to many years of schooling in a traditional educational system that values transferring information from the teacher to the student using surface learning. Thus, the students found shifting to PBL confusing and time-consuming, and were uncertain about their learning. One student in this study shouted in desperation, "Can't anyone tell me exactly what I need to know and how to obtain it?" (p.589). The students felt overwhelmed. Students were concerned that they might leave out some important information as there was not adequate time to study the large amount of required material. They found the expert panel useful, as this aligned with their past way of learning (i.e., lectures). However, the facilitators were uncomfortable using guest speakers because this was not congruent with the purpose of PBL (Biley, 1999). Biley (1999) noted that the transition to a PBL curriculum is difficult. Thus, PBL must be cautiously introduced and continuously reinforced with students. Kaufman and Holmes (1996) revealed that some of the anxiety related to changes in curriculum was due to administrative intervention such as changing tutorial groups and tutors every eight to 10 weeks and writing exams at the end of each unit.

Both faculty and students have anxiety associated with the change to a student-centered curriculum such as PBL/CBL. From all the PBL studies reviewed, students' levels of anxiety and dissatisfaction are high throughout the PBL program, until they graduate; then they begin to appreciate the benefits. A more in-depth understanding about transition to a CBL program may inform us about how we can best facilitate the transition for faculty and students in order to ease the initial anxiety.

Transition

The concept of transition has been studied widely in different disciplines using many models. Most authors consider transition as occurring during a change in an individual's life and define the term as a process rather than an event. Sanders et al. (2005) suggest that transition occurs when people change their settings and relationships. People experience transition because of a discontinuity in their development, such as divorce, becoming a one-parent family, separation, remarriage, menopause, migration, change in health, and change in environment (i.e., moving from home to daycare or daycare to kindergarten) (Ftthenakis, 1998; Meleis, Sawyer, Im, Messias & Schumacher, 2000) . Individuals experiencing transition are required to cope effectively at each stage in order to have a successful transition. For example, Sanders et al. (2005) explain that early childhood education in Europe involves children undergoing a transition by changing from a play-based, exploratory program to a formal curriculum. This change to a different curriculum offers children some challenges. Sanders et al. define transition as a process that demands that an individual adapt to a change. Individuals adapt well when there is a commonality between the previous environment and the new one, when there is frequent communication, and when the change occurs slowly over a period of time.

Teunissen and Westerman (2011) define transition as a process of learning new behaviors in order to handle some disruptions in an individual's normal life. According to Teunissen and Westerman, transition is not a static event but an ongoing one that requires that an individual use coping mechanisms to make a successful move. In summary, the common understanding among the authors indicates that transition is associated with a discomfort that results due to a change going on in someone's life.

Models of Transition

Many models have been developed to study transition in different age groups, settings, and disciplines. The different transition models identified during a literature search include the ecological model, psychology of change model, stage-environment fit theory, transitional psychology theory, developmental theory, and a nursing model. The ecological and psychology of change models have been used to explain the transition from one curriculum to another in primary education.

Ecological model. Bronfenbrenner (1979) initiated the ecological model to explain the influence of the environment on human development. The theory is rooted in the behavioral and social sciences, and studies human behaviour from an environmental perspective. Bronfenbrenner suggests that an ecological environment has different systems which are interconnected and react to exert their influence on the developing person. Environment in this theory refers to what an individual perceives, and not merely the immediate surrounding (Bronfenbrenner, 1979). Bronfenbrenner (1979) points out that an individual's reaction is a result of the relationship between the individual and the environment. In addition, individuals are active people who make changes in the environment they move into; they are not passive people that the surroundings affect (Bronfenbrenner, 1979). The focus of ecological theory is to comprehend human behaviour by moving beyond the immediate observable behavior and examining the interconnection between two or more systems where the individual is found. A key concept in the theory is the "ecological environment," which is described as interrelated systems consisting of a microsystem, mesosystem, exosystem, and macrosystem.

In his concept of ecological transition, Bronfenbrenner (1979) defines the four ecological systems and describes their impact on human development. The microsystem involves the set of

roles and the interpersonal relationships that people experience when they are in a particular setting. Microsystem can refer to an individual or a family (Shohel & Howes, 2007). A setting is defined as a medium where people can participate in direct conversation, such as a home, school, daycare or recess area (Bronfenbrenner, 1979). The mesosystem is the interconnection between two or more settings where the developing person is an active member in the interaction. An example of a mesosystem for a preschool-aged person is the home and the preschool. The mesosystem is made of several microsystems. It is formed when an individual moves to a new context such as an infant moving from the house to a daycare. The exosystem refers to the different setting in which the individual is affected because someone such as a parent in the individual's microsystem is connected to it but the individual is not directly involved or participating in the interaction. An example of an exosystem for an infant is the parents' work environment (Bronfenbrenner, 1979). A macrosystem refers to the larger community and the uniformity that can exist among the micro, meso, and exosystems within a group (Bronfenbrenner, 1979). Bronfenbrenner (1979) elaborates that children's growth and adaptation will be well understood when the relationship among the various systems are being studied.

The interconnection among the four systems and their influence on human development is described as an ecological transition. Bronfenbrenner (1979) defines an ecological transition as a change in people's roles and interactions due to changes in their settings. An ecological transition occurs because of the development process occurring in an individual's life, which in turn alters the individual's ecological environment. The change in setting can occur at micro, meso, exo and macro systems' levels (Bronfenbrenner, 1979). For example, when a preschooler starts school, the school milieu changes the environment from an exosystem to a mesosystem. Bronfenbrenner (1979) argues that the home and preschool are interrelated. Thus, he proposes

that children's developmental shifts in the mesosystem are promoted during their first few days of school, when an adult they have had previous contact with accompanies them to school. Furthermore, Bronfenbrenner suggests that children's learning will be enhanced in the new educational setting if the activities in the new setting are consistent with their previous environment (home). Also, children's transitions in the mesosystem are facilitated when the programs they are involved in foster mutual trust, positive orientation, and a power balance that favours children. The author affirms that children who develop in an environment where there is an interrelationship between the home and educational setting progress academically. Bronfenbrenner defines the interconnection between home and school as providing information early before the transition, frequent visits between parents and teachers, prompt sharing of information between the two settings, sharing of power, and frequent communication between parents and teachers. Bronfenbrenner contends that the reason children do not perform well when they move to a new setting/school is that they do not receive sufficient environmental support, not that they are weak academically. Bronfenbrenner offers a further discussion of the influence of the other three systems on human development. However, these will not be addressed in this dissertation. Interested readers can refer to Bronfenbrenner (1979) for an explanation of the other three systems.

Sanders, et al. (2005) used the ecological model to study the transition from Foundational Stage to Key Stage 1. The authors' goal was to identify the main concerns when transitioning from the Foundation Stage to Key Stage 1 education in the UK. The Foundational Stage is the reception class for children beginning school and involves the use of play activities in the curriculum. Key Stage 1 is a kindergarten stage that involves the use of a formal structured curriculum with more emphasis on work (Sanders et al., 2005). The study's findings revealed

that Foundational Stage children had some difficulties in adjusting to the more structured methods and academic requirement of Key Stage 1. There was a shift or discontinuity in the children's curriculum as children in the nursery or foundational stage are taught using a learner-centered curriculum, whereas in Year 1 they are educated in the formal teacher–centered approach. Thus, learners had to adjust to changes in the curriculum, teaching, and expectations. Through the ecological model approach, we see a break in the interaction between the children, parents, teachers and the educational environment (Sanders et al., 2005). In order to facilitate continuity in students transitioning from Key Stage to Year 1, the office for standards in education (Ofsted) (2004) recommended that Year 1 instructors should incorporate some learning activities, such as play, from the foundation stage and involve teachers in curriculum planning. Although the Year 1children were aware of changing schools and were expecting to work hard in Year 1, they had not yet developed a working relationship with the teachers, students, and environment and so they were not certain about the demand ahead in Year 1. The Sanders et al. (2005) ecological model is supported by Ftthenakis's (1998) psychology of change model because both explored changes that occur in elementary school students' lives.

Psychology of change model. Ftthenakis (1998) developed the psychology of change model to study the transition process at the family level among children in elementary school in Europe. The aim of Ftthenakis's study was to identify how early childhood education could be delivered to equip children with enough skills to cope with the discontinuities in their lives. Ftthenakis writes that after the Second World War, children in Europe experienced changes in their family structure such as divorce, separation, or remarriage. Furthermore, children experienced transition as they moved from home to daycare, from daycare to kindergarten, and from kindergarten to primary school, with demands that they cope effectively at each stage.

According to Ftthenakis, these types of changes generate deep and increased learning processes that produce emotional changes within individuals and affect their interactions with family members. The psychological change at the individual level involves redefining one's effort to cope with the emotional turmoil. Ftthenakis explains that it is important for a person going through transition to experience emotional turmoil because it forms part of the coping process during the child's transition. Ftthenakis notes that one can claim to be going through transition only when psychological changes are occurring. Transition offers the best time for individuals and family to be receptive to intervention and learning (Ftthenakis, 1998). Thus, Ftthenakis (1998) suggests that children's education should facilitate their acquisition of experiences that will enable them to cope successfully with any kind of transition in their lives. Although Ftthenakis's study focused on children, the findings are applicable to this study because his model suggests that people going through transition do have emotional distress and have to experience a psychological change in identity in order to cope effectively. Therefore, it is reasonable to expect university students' transition into a CBL curriculum to be accompanied by emotional distress and a need to master skills to effectively handle the change. Similarly, the work of Sanders et al. (2005) can inform this study because their study involves students experiencing a change in curriculum and distress due to that change.

Stage-environment fit theory. Several research studies that looked at adolescents' transition from elementary to junior high school reported that during this transition, there is a decline in adolescents' grades, self-concept/self-esteem, trust in cognition, interest in education, and feeling of belonging in school, and an increased dropout rate. However, the cause of the dropout and decline in adolescents' motivation and performance from elementary school to junior high school is not due to the transition, but rather to the educational environment to which

the students are moving (Eccles, 2004; Eccles & Midgley, 1989; Eccles & Roeser, 2011). Eccles and Midgley (1989) proposed the stage-environment fit theory, which involves the assumption that students' learning environments must be consistent with their needs and developmental levels. Different age groups require different school environments in order to fulfill their developmental requirements and promote positive emotional, intellectual, and behavioral outcomes. Eccles (2004) suggests a redesign of the middle school/junior high school curriculum to reflect the students' developmental stage. This will provide a social setting that will stimulate learners' interest and engagement in their studies as they grow. Students who find themselves in an environment that is not congruent with their age first separate themselves emotionally and then physically from school (Eccles, 2004 ; Eccles & Midgley, 1989; Eccles & Roeser, 2011). The school environment is described in sequential order with the classroom being the lowest level and closest setting to students, followed by school culture, the school district and the bigger community where the school is situated (Eccles & Roeser, 2011). Eccles and Roeser (2011) argue that each environment has beliefs and practices that affect learners' behavior every day. At the classroom level, the authors examine concepts such as instructors' beliefs and practices, teacher-student relationships, the kind of classwork, and the kind of activities done in the classroom and in groups. Teachers who have high levels of confidence promote students' self-confidence in the ability to learn course content. These teachers are bonded to their students and the educational setting, and their students do not behave badly in school On the other hand, teachers who have low levels of confidence engage in activities that display their limitations and separate them from their students. The nature of the classroom environment involves the support teachers give to their students, which leads to improvement in students' intellectual performance and their involvement in education. The support teachers provide to students also increases

students' self-confidence and sense of social belonging in school (Eccles, 2004; Eccles & Roeser, 2011). Eccles and Roeser (2011) argue that students receive immense support from teachers in elementary school. When those same students reach adolescence and attend junior high school, there is a noticeable decline in support from teachers.

Classroom management is another quality in the school environment that enhances students' learning. Several studies have shown that students' academic performance increases when teachers provide feedback, stress that students are responsible for finishing their assignments, and monitor group activities (Eccles, 2004). Furthermore, motivation to learn in the classroom occurs when the tasks are challenging and congruent with students' interest and skill levels. Eccles and Roeser (2011) argue that teachers should select academic tasks that challenge and fit well with students' age levels. These authors report that an increase in the dropout rate in secondary school in the United States was due to classroom tasks that were not meaningful and challenging enough. In addition, students who experienced ethnic discrimination were affected emotionally and academically, and did not have any interest in remaining in school (Eccles, 2004; Eccles & Roeser, 2011).

The second level in the school environment, school culture, which involves moral, interpersonal relationships and academic beliefs, contributes to a student's feeling of belonging in the educational setting and the academic performance of students. An example of school culture can be found in the Catholic school system, which emphasizes that students are expected to excel. Catholic systems reinforce that a student's duty is to study, which subsequently leads to high academic achievement (Eccles & Roeser, 2011). The culture of Catholic schools influences both teachers and students positively. The third level, the school district, describes what the transition involves and how each level affects the other. The transition from elementary school to

junior high school is explored from two perspectives. The first view emphasises that the general education system in junior high school involves larger classes. Teachers instruct many students, and as a result students are unable to form close relationships with their teachers, especially at this stage when they are growing and need direction and support from a non-familial adult. Junior high school teachers are considered less supportive, caring, and friendly than elementary school teachers (Eccles, 2004; Eccles & Roeser, 2011). Students who are struggling emotionally and academically are not identified quickly enough to receive the help they need when they need it, and as a result they become disinterested in school, and finally leave (Eccles, 2004; Eccles & Roeser, 2011). The second view of examining the transition in junior high school unique classrooms and motivation practices, involves examining an instructor's activities. Teachers in junior high school are concerned with discipline, authority, and reduction in cutting back on young adults' opportunities to make decisions and choices. However, because young adults at this age wish to have their independence and control, they are less motivated internally by their teachers' behavior. Rather than tolerate the limitations imposed upon them, they leave the school system (Eccles, 2004; Eccles & Midgley, 1989; Eccles & Roeser, 2011).

The various changes young adults experience in junior high school, in addition to the pubertal developmental changes they go through, contribute to the challenges of transition, especially for low achievers and very anxious adolescents. Thus, Eccles, Midgley and Roeser call for a reform of the junior high school curriculum to fit with the developmental stage of the learners (Eccles, 2004; Eccles & Midgley, 1989; Eccles & Roeser, 2011).

Youth in junior high schools that use less traditional curricula experience control over their learning and are motivated to learn. In the less traditional curricula, learning involves group learning, problem-based learning, and decreased competition and social comparison. Young

adults and older ones prefer less traditional or open learning because of the control they have over learning activities, which stimulates their learning (Eccles & Midgley, 1989). Adolescents in junior high schools have been found to be less motivated when involved in passive study, such as lectures (Eccles & Roeser, 2011).

The stage-environment fit theory opens a new perspective in viewing the challenges associated with making the transition from one educational level to another as due to the school setting rather than transition. The school has been examined from different levels. Salmela-Aro and Tuominen-Soini (2009) concur with the stage-environment fit theorists that enhancing the educational environment will improve students' engagement in school. Although the stage environment fit theory was developed out of research focused on adolescents, it can be applicable to young adults in university moving from a traditional to a context-based curriculum.

The social context in CBL must be examined to understand its impact on students' transition. It is expected that since learning in CBL is student-directed, students' transition to CBL will not involve many challenges because older adults prefer a less structured learning curriculum. This research is very important because most studies on transition in education have been done on primary and secondary school students and not on tertiary students.

Transitional psychology theory. Apart from studying students' transition experiences from one curriculum to another, other models have been identified to explore the transition that health science students make when moving from the classroom to a clinical environment. Transitional psychology theory has been used to understand the transition that medical students make when moving from the classroom to a clinical practice (Teunissen & Westerman, 2011). Teunissen and Westerman (2011) write that medical students undergo four phases of transition from the classroom to the clinical environment: preparation, encounter, adjustment, and

stabilization. Medical students' post-graduate education forms the preparatory phase of their transition to becoming medical specialists, and the initial few months at work as specialists forms their encounter phase (Teunissen & Westerman, 2011). After assuming a new role and the attendant difficulties in a medical practice, the recently qualified doctor makes some modifications and adapts to the change.

.***Developmental transition.*** A developmental transition model has been used to explain the movement of new graduates to competent nurses as they transition from a school environment to a clinical setting in nursing (Schoessler & Waldo, 2006). Schoessler and Waldo (2006) identify three phases of transition in newly qualified nurses: the experience of loss from leaving behind the student role, a state of confusion when past knowledge is unable to effectively solve clinical situations, and the acquisition of competent clinical knowledge. The developmental transition model has been successfully used to ease the tension associated with the transition from school to clinical practice. Common to all transition models is the focus on emotional discomfort, confusion, and anxiety associated with transition. Because these models are based on studies of faculty and students transitioning to a CBL curriculum, the models serve as a guide for what to expect.

Nursing model (middle range theory). Meleis et al. (2000) developed a middle-range theory to describe the transition experiences of patients. Meleis et al. noted that nurses work with people who are experiencing different changes in their lives, such as developmental changes, health and illness, and situational and organizational changes. There are multiple aspects to the changes that patients experience. The first component of Meleis et al.'s framework states that transition is complex and involves multiple patterns. The authors cited an example of Brazilian women who migrated to the United States and experienced multi-layered transitions, which were

complicated because the transitions were associated with other situational, developmental changes and changes in health-illness. Similarly, immigrant women from Korea were handling situational transition issues related to their migration and work as well as transitions to menopause. Meleis et al. suggest that nurses working with patients experiencing transitions should review other patterns of transition that may be happening in the lives of the patients or the patients' family, rather than assuming there is only one type of transition occurring.

The second part of Meleis et al.'s (2000) framework identifies five properties of transitional experiences: awareness, engagement, change and difference, time span, and critical points and events. Awareness involves the individuals' knowledge of being in transition. According to Meleis and colleagues, people are engaged in their transition when they show involvement by seeking information and actively modifying their behaviors. Meleis and colleagues report that all transition involves change and occurs over a period of time. The onset of transition is when the individual recognizes a change. The transition progresses to a period of confusion and distress before concluding with an end that is characterized by stability. Critical points or events that trigger transition are birth, death, menopause, and the diagnosis of an illness (Meleis et al., 2000).

The third aspect of the middle-range theory involves personal and contextual factors that promote or hinder a successful transition. These conditions include cultural beliefs and attitudes, preparation and knowledge, community conditions, and societal conditions. Meleis et al (2000) report that in a given culture, people's demonstration of emotions is reduced if a stigma is attached to a transition event. When individuals are aware of the transition and develop ways to manage it, they can have an effective transition. Both the community and people in it can enhance or inhibit transition through the various help they give to people.

The fourth component of the middle-range theory involves people's responses to their own transitions. Meleis et al. (2000) argue that a successful transition involves the individual feeling connected, interacting, being situated, developing confidence, and coping and mastering the situation. A successful transition is characterized by the individual's involvement in developing competence in skills and behaviors needed to manage current and other similar events. Although Meleis et al.'s middle-range framework on transition was conducted among patients, the findings may be applicable to adult students transitioning from a traditional lecture-based to a PBL curriculum in a university. In such cases, the framework provides a more comprehensive way of studying transition. The different transition models from education to clinical practice have in common that individuals encounter changes in their lives that generate emotional discomfort. Transition becomes effective when those involved identify the change, are engaged in the change, and develop coping mechanisms to overcome a situation.

Process of Transition to CBL Curricula and Teaching.

Having reviewed the meaning and different models of transition, it is appropriate to discuss the process that various educational institutions went through in order to change their curricula. There is a dearth of research on the process of transition from a traditional to a PBL program in health sciences education (Hitchcock & Mylona, 2000). Rideout (2000) writes that educators willing to convert their institution curriculum must examine their faculty and institution's beliefs about students and the process of learning. In order for the PBL method to be successful, the institution's curriculum designers must understand the characteristics of students, such as the commonality of their educational background and their readiness to participate in a self-directed program. Rideout's position is supported by Hitchcock and Mylona (2000), who

indicate that a transition's success depends on the faculty and students being adequately prepared.

The initial process of changing traditional curriculum to PBL or CBL is called conversion and involves an awareness of faculty about the need to change before the transition starts. Most institutions received requests from their deans or external political leaders to change their curricula (Anderson, 1997; Trapper, 2006). Before the transition takes place, a committee is formed to study the existing curricula to identify problems and conduct a needs assessment by interviewing all stakeholders. Committee members review what licensure bodies in the profession require in the new curriculum (Anderson, 1997).

Before the conversion can proceed, "A faculty board" must approve the proposal for the need to change the traditional curriculum to a PBL format. After the approval, the PBL committee decides what type of PBL to implement, and develops scenarios for the program. Some curriculum developers have argued that it is not appropriate to put the complete responsibility of learning on undergraduate students by selecting a pure form of PBL, because learning core disciplinary knowledge in a pure PBL format may be compromised during the initial years of implementing PBL (Anderson, 1997; Trapper, 2006). Anderson (1997) and Trapper (2006) recommend that schools that have such concerns should initially implement the hybrid form of PBL. At this point of choosing the type of CBL curriculum to implement, there is a transition occurring. Thus, it is essential to conduct a study on transition to explore how faculty resolves the decision about selecting which type of CBL to implement. After selecting the type of CBL/PBL, the next step is for faculty to sequence the content of the curriculum.

Faculty. A challenge that the various authors write about is the participation of all faculty members in the change. Several authors have reported that some faculty may resist and not

support the transition to a PBL curriculum because of the changes in roles, relationships, and skills, and because they don't fully understand the PBL philosophy (Allen & White, 2001; Carrera, Tellez, & D'Ottavio, 2003; Hitchcock & Mylona, 2000; Vahidi, Azamian, & Valizadeh, 2007). Faculty members experience challenges in the transition from a traditional curriculum to a PBL curriculum because they have to give up the role of a teacher and assume that of a facilitator. As facilitators, they are not a major source of knowledge or the leader of the learning process (Hichcock & Mylona, 2000). Hence, Hitchcock and Mylona (2000) suggest adequately preparing faculty for PBL, using different educational programs. It is essential that all stakeholders are involved in the curriculum design and implementation to ensure that they have a sense of ownership in the new program (Anderson, 1997; Trapper, 2006).

Hitchcock and Mylona (2000) suggest that for the transition to be successful there should be a logical sequence to the process of preparing the faculty. The steps should include helping the faculty to become tutors, and facilitating the acquisition of other skills including the evaluation approaches used in PBL, and the design of scenarios and organizing units. Faculty members should be assisted to understand the rationale for a PBL program during a preparation workshop. The workshop may last from two hours to two days and should focus on PBL principles, rationale, and characteristics of student-centered learning. During the workshop, faculty members who have misconceptions about PBL should be able to share their concerns (Hitchcock & Mylona, 2000). As faculty begin to understand PBL, they should discuss the differences between it and the traditional method of teaching. In addition, the group discussion leader can address the concern that students cannot solve real clinical situations without a grounded knowledge in basic sciences should be clarified (Hitchcock & Mylona, 2000).

Faculty must be prepared to experience and value the tutorial process. Tutorials form a core of the PBL approach. Before acquiring tutorial skills, tutors need to understand the goal of the tutorial, the steps involved, the role of facilitators, and the process of self-directed learning and peer teaching (Hitchcock & Mylona, 2000). Hitchcock and Mylona (2000) recommend that faculty observe a group of experienced students demonstrating a tutorial process as they work through a case to acquire knowledge on the topic. In addition, lecturers can join tutorial groups to practice working through a scenario.

After faculty members understand the PBL process and accept its rationale, they are prepared to learn facilitation skills. Skills involved in facilitating a PBL session include establishing guiding rules for the group, asking questions, and supporting active participation. Other skills required for facilitating a PBL tutorial are challenging research, resolving group disagreements, providing feedback, evaluating student input, and assessing team cohesion (Hitchcock & Mylona, 2000). Hitchcock and Mylona (2000) suggest that new instructors should be permitted to tutor a group of experienced students under the supervision of an experienced tutor serving as a tutor trainer. Both the students and tutor trainer can provide feedback on tutoring skills to the new facilitator.

Tutors must be trained to develop content-specific skills. This involves acquiring knowledge and skills on particular cases. Most often, faculty members have many years of experience in a traditional education setting, and they find it hard to remain quiet or deal with a situation where learners share inaccurate ideas or lose direction on course objectives. Facilitators in PBL programs need to know when to intervene and what kinds of questions to ask to facilitate students' discovery of challenging concepts (Hitchcock & Mylona, 2000). Hitchcock and Mylona (2000) suggest that a good way for new facilitators to acquire content knowledge and

skill is by discussing cases during faculty meetings with year coordinators before the course begins. Other recommendations for refining tutorial skills include weekly meetings with other tutors to resolve emerging problems, and having an experienced tutor observe the new facilitator tutorial group process.

Faculty members sometimes have difficulty assessing student learning, and believe that PBL requires more time (Grkovic, 2005; Hitchcock & Mylona, 2000; Kaufman & Holmes, 1996; Lekalakala-Mokgele, 2010). Hence, another essential component in preparing PBL tutors involves helping them to acquire advanced knowledge and skill in writing new learning scenarios/cases and handling challenging tutorial groups. Tutors must be prepared for designing new tutorial units in PBL programs, and developing evaluation materials such as triple jumps and objective assessment tools (Hitchcock & Mylona, 2000). These skills could be developed through workshops that encourage participants to share their experiences in these areas.

PBL tutors might also want to refine their leadership and scholarship skills. These skills appeal to facilitators who have passion for PBL, desire a leadership role, and are willing to engage in research about PBL. Such tutors will require special skills in curriculum design, leadership, the evaluation of students' learning, and the program (Hitchcock & Mylona, 2000). Schools contribute to tutors' education by developing an environment that supports their effort. The organizational context contributes to faculty efficiency, productivity, and satisfaction by creating rewards that recognize PBL tutors' initiatives, contributions, and research in the form of promotion and tenure (Grkovic, 2005; Hitchcock & Mylona, 2000).

Finally, institutions must decide on the continuing preparation of PBL facilitators. Schools have the option of contracting a consultant or asking some faculty members to attend training in an institution with a recognized PBL program. Institutions can also establish their own faculty

development program (Grkovic, 2005; Hitchcock & Mylona, 2000). A more common way of preparing lecturers is to contract an experienced educator from an established PBL program to organize a workshop on PBL. The benefit of this approach is that the institution can form a core of PBL facilitators to design a program. The disadvantage is that the host institution has limited experience with which to determine the success of the new curriculum after the consultant leaves. A solution to the limited faculty experience in PBL is to maintain constant communication with the expert, especially in developing cases, evaluating students, and preparing faculty (Hitchcock & Mylona, 2000). The other option of sending some faculty to another school to be prepared has an advantage of permitting new PBL tutors to hear from different, experienced PBL facilitators and practice skills with the host students (Hitchcock & Mylona, 2000). However, it is expensive to sponsor one or more faculty members to undergo preparation in another institution. Alternatively, an institution could develop a PBL training center that would include tutors and administrators who have acquired skills in PBL and have a passion for developing scholarly knowledge in this area (Grkovic, 2005; Hitchcock & Mylona, 2000). The center should be engaged in offering PBL seminars for new faculty, assessing PBL learners, and consulting with other institutions on developing the PBL program (Hitchcock & Mylona, 2000).

Students. The next preparation toward transition to a CBL program after faculty training is the preparation of students. Students have expressed challenges with a PBL curriculum because of their lack of knowledge about group process and learning (Allen, & White, 2001; Carrera et al., 2003; Vahidi et al., 2007). Institutions planning to adopt a PBL curriculum have faced the challenge of reducing their students' intake in order to have small groups of students in each tutorial group and organizing an orientation program for the students. For example, by

establishing a one-year preparatory course that students must take before entering its PBL program, a medical school in Argentina has overcome the problems stemming from its students' heterogeneous backgrounds (Carrera et al., 2003).

Without predecessors to communicate with about the PBL process and group learning, the first class of students in a PBL program often resists the program because they are unclear about what is expected of them. Furthermore, students have expressed that they spend an excessive amount of time on their learning because the PBL course content is heavy (Lohse & Shafer, 2007; Smith & Coleman, 2008; Spalding & Killett, 2010; Worrell, 2007). Smith and Coleman (2008) recommend that students should be given adequate preparation in terms of workshops on PBL. Other researchers who study the PBL method concur with Smith and Coleman and have recommended that both students and facilitators be given enough time to adapt to the PBL format (Allen, & White, 2001; Carrera et al., 2003; Vahidi et al., 2007). In brief, this section has highlighted the specific steps that various institutions have taken to change to a CBL program. It becomes clear that at the preparation stage, there are transition issues including securing faculty members' support for the change, selecting the type of CBL to implement, and preparing faculty and students for this new educational system. Therefore, again, it is important to study the process of transition to identify factors that will be both supportive and challenging.

Summary of the Literature Review

PBL is increasingly accepted as a method for educating health professionals worldwide because of its benefits to students' transition to clinical settings and because it fosters an interest in lifelong learning. Furthermore, professional regulatory bodies such as the College and Association of Registered Nurses of Alberta CARNA (2005) have expectations that newly graduated nurses will have been taught in a way that will promote their active involvement in their learning, and help them to integrate theory and practice. These expectations make CBL an appropriate curriculum to use to educate modern nurses. The literature review shows that a significant number of studies have been conducted on various aspect on of PBL, including its effectiveness, and faculty and students' experience with a PBL curriculum. The studies conducted on students experiences in PBL program sampled both undergraduate, newly graduated and diploma students from different faculties such as medicine, occupation therapy, nutrition, and nursing. However, there is a gap in knowledge about the perspectives of undergraduate nursing students with different educational backgrounds such as high school and post-secondary education on the culture of transition from a traditional curriculum to a PBL curriculum. This chapter has presented a review of the literature on the meaning of PBL, its philosophical basis, transition generally, and CARNA's competencies expected from graduates of a baccalaureate nursing program. A detailed description of the culture of transition from a traditional curriculum to CBL is provided at the end of this research**.**

Chapter Three

Method

Focused ethnography, a type of classical ethnography was used to address the broad research question, "how do faculty and students experience transition to the culture of a context-based learning (CBL) program in nursing?" In this chapter, the researcher will clarify the differences between ethnography and focused ethnography beginning with a description of the two approaches. The next part of the chapter involves a description of the study setting, sample, sample recruitment procedures, data collection strategies, and data analysis. The chapter ends with strategies used to ensure the study rigor, important ethical implications, and the study limitations.

Ethnography

Ethnographic research emerged from cultural anthropology in 1961 and has attracted the interest of other disciplines such as sociology and education (Angrosino, 2007; Munhall, 2007). Ethnography involves describing the culture of a particular group of people or a subculture (Munhall, 2007; Roper & Shapira, 2000). Ethnography is also about learning from the group being studied (Roper & Shapira, 2000). The goal of ethnographers is to understand, describe, and write about the meaning that indigenes ascribe to actions and events within their cultures (Aldiabat & Le Navenec, 2011; Spradley, 1979). Another purpose of conducting an ethnographic study is to report the existence of different realities and explain these realities from the perspective of the indigenes. Through ethnography, people's behaviors are better comprehended. Krishman et al. (2011) write that ethnography is a design that is sensitive to the individuals, culture, and setting being studied. Also, grounded theories and middle-range theories can be identified from ethnographic designs (Speziale & Carpenter, 2003).

Speziale and Carpenter (2003) discuss four types of ethnography: classical, systematic, interpretive/hermeneutic, and critical. Classical ethnography involves describing an action and the conditions under which the action is exhibited with the purpose of understanding the situation. Systematic ethnography focuses on describing the composition of a culture instead of focusing on the people and the relationship among them. Interpretive or hermeneutic ethnography is aimed at finding meanings about interaction by identifying patterns and drawing inferences from people's behavior. Critical ethnography involves looking for circumstances that depict social injustice, unfairness and power imbalances in a culture. This study followed focused ethnographic design which is a type of classical ethnography.

Although there are different types of ethnography, Speziale and Carpenter (2003) identify six characteristics that all ethnographic designs have in common. The authors emphasize that the first three qualities are found in other qualitative designs, while the last three are unique to ethnographic studies. The six characteristics are: the researcher as instrument, fieldwork, cyclic nature of data collection and analysis, emphasis on culture, immersion of the ethnographer in the culture, and reflexivity. The researcher as an instrument recognises the researcher's impact on the study because the researcher socially constructs, interprets, and selects what to report (Cruz & Higginbottom, 2013) during participant observation to comprehend the behavior of the people being researched. During participant observation, researchers observe and document their observations from their perspectives as outsiders. The second characteristic of ethnography, field work, requires the ethnographer to be physically present in the environment in which the study is being conducted. Cyclic data enables the researcher to come up with more questions about the social group being studied. The fourth characteristic, immersion in the culture, is specific to ethnography. Cultural immersion demands that the investigator reside in the particular culture.

The last characteristic, reflexivity, is a concern because the researchers become less neutral/objective in their observations as they live within the culture. Therefore, reflexivity requires the researcher to clearly state the effect of the researcher, design, and data generation process on the research outcome (Cruz & Higginbottom, 2013).

Although, ethnographers generally concur that the goal of ethnography is to acquire understanding and then describe the culture of a particular group, they provide different meanings for culture and agree that culture is difficult to define. Spradley (1979) defines culture as the knowledge indigenes have acquired and apply to the interpretation of experiences in order to develop socially accepted behaviours. Similarly, culture is defined as a group of people's total way of life that involves behaviours that are socially developed and transmitted (Munhall, 2007). Although ethnographers are interested in acquiring cultural knowledge, they agree that cultural knowledge cannot be directly observed; rather, it is learned using implicit and explicit methods over a period of time (Spradley, 1979).

Acknowledging that cultural knowledge is not always explicit, ethnographers believe that knowledge is socially constructed and discovered. This knowledge should portray the culture of the people being studied (Spradley, 1979). Guba and Lincoln (2005) write that validity or reality or knowledge in naturalistic or constructivist paradigms is socially negotiated by members of a community based on their understanding of what is real, beneficial, and meaningful. In other words, knowledge is not static but depends on the period and the historical context of the people when they constructed their knowledge. In ethnography, the nature of reality or ontology is considered to be cultural knowledge that is acquired through symbolic interactionism (SI) and by making cultural inferences (Aldiabat & Le Navenec, 2011; Speziale & Carpenter, 2003). Aldiabat and Le Navenec (2011) describe SI as the way a researcher seeks to comprehend social

relationships among people in a group and how those people relate to one another. Spradley (1979) argues that an informant's knowledge is more than ideas that must be organised into categories to discover informant's reality. Spradley suggests that an ethnographer strives to understand the meaning that people give to events and artifacts. Tacit knowledge is an implicit knowledge or knowledge that is not readily expressed and cannot be easily communicated unless various methods of data collection are used (Speziale & Carpenter, 2003). The ethnographers' role is to use various means to access tacit knowledge. The acquisition of cultural meaning also involves understanding symbols and making inferences. The symbols are aspects that can be perceived or experienced. Researchers seek for the usage of symbols and make inferences using the symbols' association with other symbols (Spradley, 1979). Speziale and Carpenter (2003) explain that ethnographers acquire cultural knowledge by making cultural inferences, which are the decisions researchers make using what they observe or hear when examining another culture. Ethnographers make cultural inferences using people's actions, artifacts, and verbal communications (Speziale & Carpenter, 2003).

Having understood that the nature of knowledge in ethnography is socially constructed, it is important to discuss the process of discovering knowledge or "knowing about reality" in the design (Aldiabat & Le Navenec, 2011). Epistemology is described as the development of knowledge or the various ways of knowing (Gringeri, Barusch & Cambron, 2013). Gringeri et al. (2013) write that researchers demonstrate epistemological integrity by openly discussing their worldview, use of theory, reflexivity, and influence of power in their interactions with participants. Ethnographers believe there are multiple truths and consider indigenous knowledge to be true (Aldiabat & Le Navenec, 2011). It is the responsibility of the researcher to discover this reality from the perspectives of the people being studied. The epistemology of ethnography

depends on the investigator's approach. Three positions — emic, etic and eclectic — are the identified means for generating knowledge in ethnography (Cruz & Higginbottom, 2013; Munhall, 2007; Roper & Shapira, 2000). The *emic* perspective focuses on the ethnographer discovering the insiders' knowledge by acquiring access to their lives, experiences, and beliefs. The ethnographer explores the meaning of symbols and language of the insiders, and then describes their world view (Spradley, 1979). Researchers also use the *etic* position when an outsider's view of the culture is being studied, in order to understand tacit knowledge about the people (Munhall, 2007). Ethnographers who use the etic perspective believe they can apply their theoretical background to understand a group of people's beliefs and practices (Roper & Shapira, 2000). However, most investigators use an eclectic approach that involves combining etic and emic perspectives to discover cultural knowledge (Roper & Shapira, 2000). Frequently, ethnographers generate data through the emic view by interviewing informants and making an effort to understand the informants' perspectives using their own outsider's scientific analysis (Cruz & Higginbottom, 2013; Munhall, 2007; Roper & Shapira, 2000).

Spradley (1980) suggested that there are 11 steps involved in conducting an ethnographic study: conduct participant observation, develop an ethnographic document, describe the observation, conduct a domain analysis, conduct a focused observation, do a taxonomic analysis, conduct selected observations, make a componential analysis, identify cultural themes, have a cultural inventory, and document the ethnography. These 11 steps were used in this study and will be explained in more detail in the study.

Having discussed the nature of knowledge and how this can be known in ethnography, it is crucial to illustrate the importance of ethnographic research. Ethnographic studies have contributed in numerous ways to an understanding of the human population and society. Modern

society is comprised of people from different cultures and as a result, ethnography provides insight into the way of life of these people. In nursing, ethnography as a research method began to be used in the 1960s and 1970s (Munhall, 2007). Topics such as the influence of culture on health and illness, and understanding the cultural context of patients' health practices have been researched with ethnographic designs (Cruz & Higginbottom, 2013; Munhall, 2007; Roper & Shapira, 2000). Similarly, ethnographic studies in nursing have led to providing culturally sensitive care, acquiring access to the health beliefs and practices of patients, comprehending the meaning that a group gives to their experiences, and adding to the development of nursing knowledge (Cruz & Higginbottom, 2013; Roper & Shapira, 2000).

The researcher's interest in understanding the experience of tutors and students making a transition to the culture of a CBL program led her to select focused ethnography, a variation of ethnography, as the design for this study. In order to comprehend focused ethnography which is described in the next section, it is important to understand ethnography, the nature of knowledge in ethnography, and how this knowledge can be known.

Focused Ethnography

Although focused ethnography is increasingly used in the social sciences, including sociology and the health sciences (such as nursing), some researchers have reservations with the design. When focused ethnography is used as a sole research method, ethnographers view it with some scepticism because it involves less time spent with a small sample of people (Agar & Macdonald, 1995). On the other hand, researchers like Knoblauch (2005) argue that focused ethnography is a legitimate method that can be used to study a group of people's norms and their opinion on a topic.

Focused ethnography involves emphasizing a specific issue that affects a particular group of people in a precise setting over a short period of time (Cruz & Higginbottom, 2013; Speziale & Carpenter, 2003). Speziale and Carpenter (2003) explain that focused ethnography is a type of classical ethnography, and as a result it shares common characteristics with the former design such as the researcher conducting detailed research and being physically present in the field. In addition, the researcher uses different forms of data collection, such as formal and informal interviews, field observations (which may be omitted), and document analysis similar to classical ethnography (Cruz & Higginbottom, 2013; Knoblauch, 2005; Speziale & Carpenter, 2003). The participants in focused ethnography have detailed knowledge and experience on the research topic and are often of similar backgrounds (i.e., they practice similar professions) (Angrosino, 2007; Higginbottom, Pillay & Boadu, 2013).

In focused ethnography, the researcher has prior knowledge of the group or topic. Knoblauch explains that focused ethnographers have deep background knowledge on the research topic but they set this aside during their data collection. The possession of this prior knowledge enables the researcher to assess the group information and register and generate meaning from the conversation (Agar & Macdonald, 1995). The research topic for focused ethnography is limited or narrowed. For example, instead of studying nursing education as a topic, an aspect of nursing education is studied by asking a question such as "how do faculty and students experience transition to the culture of a context-based learning program in nursing?" (Knoblauch, 2005).

Generally, focused ethnography is used to complement conventional ethnography (Knoblauch, 2005). Unlike ethnography, where the researcher spends at least one year in the field because the ethnographer is a stranger in the society they study (Agar, 1996;

Knoblauch, 2005), focused ethnographers spend less time with the participants. In focused ethnography, researchers are confronted with alterity instead of strangeness (Knoblauch, 2005). In alterity, researchers have a shared knowledge with the participants although they may encounter some new ideas. Researchers can understand the participants' different views because they (researchers and participants) have shared knowledge. This shared knowledge permits researchers to recognise variations between themselves and participants during discussions (Knoblauch, 2005). Another characteristic of focused ethnography is the emphasis on actions, interactions and social events, whereas conventional ethnography focuses on people and social situations (Knoblauch, 2005).

The researcher in this study followed the focused ethnography method by first conducting an initial literature review on the research topic to improve her knowledge and prepare her for what to observe and write in the field notes. Hence, during the study the researcher was not a passive collector of objective data; rather she made choices about what to observe and avoid (Agar, 1996).

Research Context and Setting

The study was conducted in an undergraduate nursing program at a large western Canadian university. The sample was drawn from the undergraduate program, which is comprised of Collaborative, Bilingual and After Degree programs. The Collaborative program is four years in length and offered at four different geographical sites. The population for the study comprised undergraduate nursing students (first-, second-, and third-year Collaborative nursing students; Bilingual students; and After Degree students) and faculty members who tutored or were involved in designing the CBL curriculum. The reason for involving students and faculty

was to understand the culture of transition within each social unit and obtain a holistic view of the topic.

The Learning environment. CBL is the teaching and learning method used in these undergraduate programs. The CBL approach to learning is based on the assumption that nursing is holistic and nurses appreciate the life context of their patients (Profetto-McGrath, Smith, Day & Yonge, 2004; Williams & Day, 2006). The CBL process involves small groups of students working with a faculty tutor to discuss situations that real nurses typically encounter in practice.

In the Collaborative CBL curriculum used in the Faculty of Nursing (FON), there are six-week tutorial courses and six-week clinical courses in each term. In each tutorial course, students explore four to eight real nursing practice scenarios. Tutorial groups meet for three hours twice a week for each six-week course or for seven hours per week for 13 weeks. Students learn nursing theory by discussing real practice scenarios that are structured to highlight one or more of the determinants of health as defined by the Public Health Agency of Canada (2003). Students begin discussing health promotion topics and nursing concepts in year one. They continue to build on this throughout the years of their program as they discuss more complex patient situations. By the end of their program, nursing students have dealt with several scenarios that feature individuals and families from different backgrounds with different risk factors, health conditions, and comorbidities. The third-year students would have also completed a practicum in both community and acute care settings where individuals and families are the focus.

After Degree students have an undergraduate degree from another discipline and the undergraduate nursing program is condensed into two years. In some courses in the After Degree program, there are two weeks of tutorials followed by two weeks of clinical practicum over a 13-week term, while in other courses the clinical and tutorial components are done concurrently. All

undergraduate students attend traditional support courses designed to supplement knowledge development in sociology, psychology, pathology, philosophy, and political science. Concurrently, three-hour skill labs are organised and offered weekly for students to practice nursing clinical skills. In this study, both students and faculty experience the transition from a traditional to a CBL approach to teaching and learning. Hence, students and faculty from the Collaborative and After Degree and Bilingual programs were invited to participate in the study. All undergraduate students entered the programs with little or no exposure to the CBL approach.

Sample

Since the goal of focused ethnography is to understand and describe an action or event within a particular culture or subgroup as informants discuss a phenomenon, purposive sampling was used to select participants who had experience with CBL, the focus of this study (Agar, 1996; Higginbottom et al., 2013). Separate focus groups were planned for students and tutors in order to maintain homogeneity, eliminate power issues and facilitate sharing of experiences (Mayan, 2001). The student focus group members came from years one, two, and three of the Collaborative Program, Bilingual students who joined the year-one After-Degree program; and years one and two of the After Degree program. These students were selected because of their experience with the transition to CBL which is dependent on their enrolment year. Two tutor focus groups were planned, one for tutors with less than five years' experience and one for those with more than five years' experience. Although in focused ethnography, members usually do not know one another, it is possible that the members in these focus groups knew each other. Thus, anonymity and confidentiality of group members could not be guaranteed; instead, confidentiality was emphasized (Mayan, 2001). The criterion for student participants was that they must be undergraduate students enrolled in the Collaborative or After Degree program at the

University of Alberta, Faculty of Nursing (FON). The tutors had to be employees of the FON and had to have tutored in a CBL session at the University. The researcher intended to have a total of seven student focus groups to ensure that data were verified across groups to determine if particular information was specific to a group or was being influenced by group dynamics (Mayan, 2001). Each focus group was to have a minimum of six and maximum of 10 participants, as recommended for focused ethnography (Agar, 1996; Angrosino, 2007; Knoblauch, 2005; Mayan, 2001; Munhall, 2007). Higginbottom et al. (2013) argue that in focused ethnography, the sample size is not predefined. Rather, saturation of data dictates the number of informants to be recruited.

Accessing the Culture

The researcher accessed the culture through focus group discussion of student and tutor participants and through observing students and tutors in the teaching and learning environment. Each is briefly described below. Participants for student focus groups were recruited using several steps. Student recruitment began in September 2013 after the researcher received ethics approval for the study from research ethics and management online (REMO) and sought administrative approval from the Acting Vice Dean of the FON (Appendices A and B) indicating her interest in studying students' and tutors' transition to CBL. After the Acting Vice Dean gave administrative approval, her office sent an electronic letter of information to all students describing how they could participate in the study (Appendix C). The researcher attended fixed resource sections for the following collaborative courses (NURS 194, 294, 394) and after-degree courses (NURS 307, 407) to introduce herself and the study to the students after they had been notified about the study. To recruit additional students, advertisements were posted on FON bulletin boards (Appendix E). Students were also asked to contact the researcher directly either

by phone or email about their interest in participating in the study. Students recruitment started in September 2013 and all were recruited from years one, two, and three of the Collaborative program; the second year of the bilingual program; and years one and two of the After Degree program.

Recruitment of tutors commenced when the researcher sought another administrative approval from the Acting Vice Dean of Nursing to recruit tutors for the study. The Acting Vice Dean sent an electronic poster of the study to all faculty to inform them about recruitment for the study. Furthermore, the researcher discussed the study with year coordinators and course leads, who encouraged tutors to volunteer in the study, since the reseacher did not have approval to directly approach tutors. The researcher attended year team meetings to introduce herself and the study to tutors. At the end of her presentations, tutors who were interested in the study were asked to inform their team leader, who would convey the information to the researcher. Unfortunately, contacting Year Coordinators and attending team meetings did not prove successful in recruiting tutors into the study. Hence, a tutor who had agreed to participate used a method called snowballing: she contacted her colleagues and recruited them into the study. Twelve tutors were recruited through snowballing and five through the letter sent by the Acting Vice Dean. The snowballing and the letter that the Acting Vice Dean sent to tutors were the most effective methods of recruiting participants into the study. The letter of information (Appendix D) sent to tutors included the researcher's contact information (email and phone number) so that tutors who were interested in participating could contact her. The plan outlined in the proposal was to recruit 20% more participants (10 in each group) to ensure that there were enough group members in case someone did not attend the session (Mayan, 2001). However, this was not

possible since the responses from both tutors and students were low. Thus, there were some focus groups with only one person participating.

All participants who showed interest in the study contacted the researcher by email. Once they had sent an email, the researcher followed up with an email, then started to negotiate for a convenient date for the focus group interview. The recruitment of students took one month. Once all students interested in the study had contacted the researcher, she asked their year coordinators for days in the week when each group had free time. The students were contacted to provide the researcher with their availability based on the two days that most of them had free time. All the students gave availabilities that fell within their timetables, and subsequently the focus group dates were scheduled. The faculty recruitment started in November 2013 because other studies involving faculty members were being conducted while the researcher was collecting the students' data.

Recruitment for observation in tutorial classes was done by first contacting the year's coordinators of the respective years of the undergraduate program involved in the study. The year coordinators were asked to recommend tutors whose classes the researcher could observe. The researcher contacted tutors directly for permission to observe their tutorials and sent them an electronic copy of information on the study and a consent form (Appendix K). The tutors then sought group consent from their various classes for the researcher to observe their CBL session (Appendix I). The researcher observed 21 CBL sessions (63 hours): five seminars from first year, three sessions from second year, and six sessions from third year Collaborative students as well as four sessions from first and three sessions from second year After Degree seminar groups. The observation involved the CBL process, group dynamics, and tutors' facilitating styles.

Data Collection

Field observation. The main data collection methods were field observations and focus group discussions. Fieldwork is the first step that Spradley (1980) identified in conducting ethnography. During fieldwork, the researcher volunteers and becomes a participant observer by actively becoming involved in the daily activities of the people (Roper & Shapira, 2000). Roper and Shapira (2000) report that through participant observation, the researcher validates information and interpretation with the informants in order to gain an insider's perspective on the research topic. There are four roles that a researcher can engage in during participant observation: participant, participant-as-observer, observer-as-participant, and observer (Roper & Shapira, 2000). These roles are based on how engaged the ethnographer is with participants. The participant-as-observer role involves the researcher being actively engaged with the people and participating in their routines. Researchers gain an insider's view because they have access to areas that they may not be able to access when in their roles as observers (Roper & Shapira, 2000). The observer-as-participant role entails the researcher having minimal contact with the informants and decreased involvement in their daily activities (Roper & Shapira, 2000). The observer-as-participant role is used to collect precise information and in a context where active participation by the researcher is not permitted (Higginbottom et al., 2013; Roper & Shapira, 2000). Roper and Shapira (2000) explain that when the observer-as-participant role is solely used, it prevents the checking of information with participants. In the observer-only role, the researchers only observe and are not actively engaged in the setting. The researcher has only the etic view and not the emic view, because of a lack of validation with the participants when in the observer-only role. Lastly, the participant-only role involves the researcher closely participating in the activities of the setting without the informants' awareness. Researchers hide their role and

no informed consent is sought from the people, rendering this role ethically inappropriate (Roper & Shapira, 2000). Roper and Shapira (2000) recommend that researchers combine both participant-as-observer and observer-as-participant roles in order to obtain a detailed understanding of the culture being observed.

Before data collection, the role of the researcher during fieldwork was to be a non-participant observer because she was not going to be facilitating the tutorial or involved in grading the learners (Krishman et al., 2011). However, the nature of CBL is such that the tutor and students co-learn. As a result, even though the researcher was not involved in grading, she took part in the CBL process, such as in role play. She also directed students on the topic being discussed when the tutor was with another group. In some instances, the tutor was present and wanted the researcher to be part of the group. When this happened, the tutor asked the researcher for her opinion on the topic being discussed. Hence, the researcher used both observer-as participant and participant-as-observer roles during fieldwork, which enabled her to validate data with participants and gain an emic view on the transition to CBL (Roper & Shapira, 2000).

During observations, the researcher asked mainly descriptive questions about the culture selected, questions such as "who were the people involved in a CBL learning environment" and **"**what approaches to teaching were they familiar with before they came to the FON?" and noted her observations in the field notes. The other two types of observations, focused and selective, were also done during data collection as well as data analysis (Speziale & Carpenter, 2003; Spradley, 1979). Focused observation, which is done after domain analysis is completed, involves the researcher collecting additional information on a domain that needed to be developed in detail, such as "throwing someone into an ocean." The researcher asks structured questions such as, "is stepping out of a comfort zone similar to throwing someone into an

ocean"? in order to confirm or dispel an assertion about the domain (Spradley, 1979). The goal of asking structured questions during the interview and of the data is to conduct a taxonomic analysis. Selected observation is used after taxonomic analysis is completed in order to refine the data. The researcher asked contrast questions during the interview and of the data to identify the attributes of the generated domains. An example of a contrast question that guided the selected observation was "how is learning in a CBL curriculum different from learning in a traditional curriculum" (Speziale & Carpenter, 2003; Spradley, 1979). Researchers use different forms of data collection to confirm their observation. As part of the fieldwork, the researcher attended 21 CBL seminar sessions (years one, two, three of the Collaborative program and years one and two of the After Degree program) to observe the transition culture of tutors and students and the CBL process (Appendix P). In addition, the researcher attended one fixed resource session (FRS) and had some informal conversations with tutors and students in CBL seminars. Additional documents (program information from a website and calendar, present curriculum, course outline, scenarios, orientation package) were analyzed for information on CBL in action and for the researcher to understand the context of students and tutors (Munhall, 2007; Roper & Shapira, 2000). The researcher focused her observations on the transition culture that evolved from both CBL tutors and students on their learning in a CBL community. Krishman et al. (2011) define a learning culture as a set of activities that emerges based on students' behaviours, assumptions and styles to studying that impact their learning in the PBL group. Krishman and colleagues' definition of a learning culture was expanded to explore a CBL nursing faculty and students' transition culture. The expansion of learning culture included the meaning that informants (tutors and students) in the learning community had acquired during their transition. The practices

informants engaged in as they interacted with the course material to actively collaborate in their learning formed part of the learning culture.

Field notes. Spradley (1980) indicates that it is the role of ethnographers to write down their observations. Writing down the experience from observation is the second step Spradley proposed in conducting ethnography. The written document is called a field note. The field note contains what is observed and heard, questions that have been answered, and artifacts collected. In this study, the researcher documented in the field note her observations about the setting (seating arrangement, learning aids in the classroom), participants (the number of students in each seminar group, their appearance and use of physical space, tutors' facilitation styles in each year group), and her reactions about the fieldwork. The CBL process was also documented: for example, how students brainstormed and presented their research in each year group. The researcher also observed the interaction among students, between students and tutors, and how students learned the content in a CBL program.

Focus groups. Focus groups are commonly used in social sciences. They originated from advertising and marketing sectors to seek consumers' opinions about a product (Agar & Macdonald, 1995; Angrosino, 2007; Knoblauch, 2005). Mayan (2001) defines focus groups as having six to 10 group members who have common experiences and are recruited to respond to a list of questions in a moderated environment. They discuss in an informal style, using daily vocabulary that reveals essential information unknown to the researcher. Focus groups emphasize group interaction while generating data that may be difficult to obtain by interviewing one person at a time (Mayan, 2001). Focus groups provide a good way to explore new areas because they generate information very quickly, as group members share their opinions during the interview in an attempt to achieve consensus.

Before commencing the focus group interview, the dissertation supervisors arranged two opportunities for the researcher to observe and practice conducting focus group interviews, which she highly appreciated. First, there was an opportunity for the researcher to assist in a focus group interview on a study with faculty members under the mentorship of the project coordinator. Second, the supervisory team organised a pilot focus group interview in which they were the participants along with another experienced faculty member. After the pilot interview, the researcher received feedback on her interview skills from the three participants, which increased her confidence to proceed with her own focus group interview.

Each focus group discussion was guided using semi-structured questions (Appendices F, G) and the session was tape-recorded. Ethnographers believe that a semi-structured interview guide should be used when the researcher has limited knowledge about the topic (Mayan, 2001). The interview was used to generate detailed data from group members by asking them to talk about their experiences on transition to a CBL program (Mayan, 2001). The interview consisted of a list of open-ended questions that the researcher asked participants to answer in a sequence (Mayan, 2001). An example of a semi–structured question is "tell me about your experience with adjusting to CBL." Furthermore, in focused ethnography, the researcher must understand the culture and language of informants in order for the data to be meaningful and result in a shared understanding between the investigator and participants (Cruz & Higginbottom, 2013; Knoblauch, 2005; Roper & Shapira, 2000).

Probing questions, such as "would you elaborate on that?" were used to explore a phenomenon and clarify participants' ideas and emotions in order to gain a deeper understanding of the research phenomenon (Mayan, 2001). Overall, five semi-structured questions (Mayan, 2001) guided the interview (Appendixes F, G). The interview guide was generated from the

literature review that the researcher conducted, as well as from consultation with members of the supervisory team, who have many years of experience with the research topic.

The location for the focus group interview was an assigned room in the FON. Interested volunteers were asked to meet the researcher at a specific time agreed upon by both the participants and researcher. Each interview session lasted approximately 60 minutes (Mayan, 2001). Participants were at liberty to leave at any time The researcher emailed the consent form and demographic data to participants before the interview day in order for them to read and complete the forms before the interview commenced. Also, there were extra forms on the interview day for participants who forgot to bring their forms. At the beginning of the focus group, the researcher introduced herself, the purpose of the study, the anticipated use of the data, and the rules for interaction (such as respecting everyone's contribution). She also answered any questions that arose (Mayan, 2001). Then, participants were asked to introduce themselves. Participants who had not completed their consent form (Appendix H), group confidentiality form (Appendixes K, L), and demographic data (Appendixes N, O) were asked to complete them before the focus group interview began. Once the consent form and demographic data (i.e., gender and year in the program) were collected, participants were offered copies of the consent form for their own files. Most declined the offer.

Before the audio recorder was started, participants were informed that the interview session would be recorded and transcribed. The participants were also informed that they were at liberty to not answer any question asked and could refuse participation in the interview without being penalized. In order for the participants to share their experience with no fear of being recognised, the researcher explained to them that codes would be used to replace names on the transcriptions. The researcher explained that her role was to moderate the focus group;

therefore, she was to ask the questions that would guide the discussion. Participants were encouraged to share their views. The researcher tried to remain neutral by not affirming their responses (Mayan, 2001). The participants and the research assistant (RA) were asked to sign an agreement to maintain confidentiality (Appendix M) and to not discuss issues mentioned at the focus group once they left the group. Two RAs, both graduate students, were used twice for the two large focus groups. To allow the researcher to give her full attention to the focus group discussion, the RAs recorded non-verbal observations such as participants' facial expressions, posture, and balance of participation among members during the interactions (Knoblauch, 2005).

Once all of the participants were comfortably seated and their questions answered, the interview began with the researcher using the interview guides to direct the discussion (appendixes F, G). The initial question was a grand tour question: "what approaches to teaching were you familiar with before you came to the FON?" and "How much did you know about CBL before you came to the program?" As the interview continued, the researcher asked specific questions, such as "where did you get information about CBL"? in order to gain specific information about transition. The researcher asked contrasting questions: "what was most difficult adjusting to CBL?" to understand the meaning that students and tutors gave to words (Munhall, 2007). Group members were invited to take turns answering a question. Those who were quiet were asked to share their views and were invited to confirm if what was being discussed was similar to their experience (Agar & MacDonald, 1995). Data collection continued until saturation — a point at which no new information was emerging — was reached (Agar, 1996; Angrosino, 2007).

The researcher started the students' focus group interview first and transcribed the data concurrently. However, due to the increased number of interviews conducted, on some occasions

the researcher could not keep up with the concurrent data collection and transcriptions. After transcribing the first few transcripts, the researcher met with her dissertation supervisors to discuss the students' shared experiences of transition to CBL. Again from this meeting, the supervisors guided the researcher to probe for more information and stressed the need for her to verify information from the transcribed data with the next interview groups. Also, the supervisors cued the researcher to look for information that was not mentioned in previous interviews and emphasized that she should maintain the iterative data generation and analysis.

Document analysis. Other form of data collection that was used in this study was document analysis, since the study was conducted in an institution. Documents such as program information and curriculum materials were reviewed to understand the context (transition culture). The researcher analysed artifacts such as students' research and the current curriculum to understand the program and its implementation, and to gain insider knowledge of the culture (Munhall, 2007). Also, individual tutors such as a formal tutorial consultant were interviewed to obtain their perceptions of the CBL program.

Data Analysis and Data Management

Data analysis involves searching for patterns in the data to help explain the research topic (Spradley, 1980). The researcher is the instrument of data analysis in qualitative research; hence, the researcher reflects on the meaning of the information collected and seeks to respond to some of these inquiries: "what is going on here?", "what does this means?", and "why do the participants behave this way?" (Jacelon & O'Dell, 2005, p. 217). Ethnographic data analysis comprises searching for the components of a culture, the relationship among the components, and the relationship among the components to the entire culture (Coffey & Atkinson, 1996; Spradley, 1980). In ethnography, data analysis is concurrent, which involves back and forth

movement between data and participant by initially collecting data and analysing, then collecting additional data and going back to participants to clarify areas that are unclear (Agar, 1996, Morse, Barrett, Mayan, Olsen & Spiers, 2002; Richard & Morse, 2007). During concurrent data analysis, the researcher interprets and learns from the data (Agar, 1996). Concurrent data analysis stops when saturation is obtained: that is, when there is no new finding emerging from the interview (Jacelon & O'Dell, 2005). At that point, the final paper is written. Spradley (1979) indicates that peoples' realities are not in pieces; rather, they are arranged in domains that are linked to the larger social context. The goal of analysis is to use methods that lead to the discovery of cultural meaning and knowledge and provide a rich description of the culture. Focused ethnography stresses the insider's perspective and yields comprehensive data that is not superficial because of the different methods used to obtaining it (Knoblauch, 2005). Thus, the data analysis requires a detailed method of interpretation.

Keeping in mind the goal of qualitative research and specifically focused ethnography, the researcher used Spradley's (1979, 1980) four types of ethnographic analysis - domain, taxonomic, componential, and thematic- to analyze the data for this research. The data analysis commenced with transcribing the interview as soon as possible using Microsoft Word. A table with three rows was used to format the transcription. Whenever a participant shared an idea about the question leading the discussion, a new line was started. Both verbatim and interpretive and analytical methods of transcription were used to transcribe the audio-taped interview (Downs, 2010; Maclean, Meyer, & Estable, 2004; Tilley, 2003). With verbatim transcription, the researcher types what is heard on the tape, maintaining consistency and objectivity, while the interpretive and analytic method requires the researcher to develop an understanding of the audio tape and produce a transcript that captures the reality of the participants (Downs, 2010; Maclean

et al., 2004; Tilley, 2003). After transcribing the tape, the researcher cleaned up the transcript by playing the audiotape again to ensure the accuracy of the content of the interview and correct typographic errors. All individual identities were removed from the transcripts. Each participant was assigned a code made up of one letter and one number (for example P1 for participant one) in order to maintain anonymity. All transcribed data were shared with the two dissertation supervisors who read the transcripts and shared their interpretation of the data with the researcher (Angrosino, 2007).

The data was managed using different electronic folders created in a Microsoft Word 2010 word processing program. Each folder was used to store aspects of the study, such as interviews, transcripts and codes, theoretical memos, theoretical analysis, demographic data, audit trail, and narrative. There were files within each folder to group the data.

Coding. To start the data analysis for each group of informants, students and faculty, the researcher initially read through each transcript, beginning with the student focus group, followed by the faculty focus group. She highlighted and bolded sections or lines in the transcript to select ideas in the data (Jacelon & O'Dell, 2005). These ideas, also referred to as codes, were developed based on the researcher's understanding of literature on the research topic and her perception of what the participants were sharing (Jacelon & O'Dell, 2005). The researcher wrote the codes on the right-hand column of the table. The researcher then opened a second Microsoft Word table with three columns with the headings "question, code, and quote" for each coded transcript. She copied and pasted each code, along with the supporting quote, into the second table under the specific research question. During the coding stage, the researcher would open other transcripts to compare codes. The generated codes were sent to the supervisory team and the researcher met with them frequently to discuss the codes, making an effort to always reach a

consensus when comparing and resolving discrepancies in the interpretation of the data (Angrosino, 2007). The researcher proceeded with the iterative data collection and analysis after meeting with the supervisory team. It was during the transcription and coding of the faculty data that negative cases (information that was different from what most participants were reporting) were identified. These negative cases were categorised and discussed with research supervisors. Similar negative cases were sought from subsequent interviews with tutors, but no new category was generated.

Identifying patterns. After coding the transcripts of the student data, the researcher printed hard copies of all coded data, read through each focus group transcript, and picked the best codes and quotes for each research question. First, the researcher had 12 coded transcripts from the students' focus groups. After the second reading of the 12 coded transcripts, the number of transcripts was reduced to five, as follows: common patterns from first-year Collaborative, second-year Collaborative, third-year Collaborative, first-year After Degree and second-year After Degree transcripts. At this point in the second reading of the transcribed data, the data were still analyzed under each research question in order to identify the common patterns and meaning of phrases that participants were using (Higginbottom et al., 2013). The researcher had another meeting with the supervisory team to discuss the common patterns identified from the first coded transcripts. Some of the codes were modified by the supervisory team and the researcher moved to the next stage.

Identifying themes. The next level involved identifying themes in the data (Jacelon & O'Dell, 2005) by combining the five student scripts into two main scripts that is "similarities and differences from the Collaborative students and those from the After Degree students' data." At this point, the researcher had moved from analysing the data question-by-question to identifying

the broad picture that participants were sharing and the similarities and differences among the year levels. During the categorization, the researcher ensured that all data were grouped and represented. Similar to the previous approval method, the researcher met with the supervisory team on the identified categories/themes. Once the community was convinced about the two main themes that emerged from the student data, the researcher combined the undergraduate data into one document that comprised the categories from the student data and the best quotes that supported each code. During the process of coding and recoding, sometimes the researcher was required to probe more into a code or category by collecting data to clarify an area. In addition, the researcher was aware of the principles of analysing focus group data. The unit of analysis in focus groups is both the individual and the whole group view (Mayan, 2001). The researcher made an effort to determine the extent to which each member agreed with the group's opinion about the importance of concepts. She also identified if a perspective occurred in only one group or across all groups (Mayan, 2001). Similar steps were followed for the faculty data analysis, until the researcher had one document from the seven initial transcripts.

Domain analysis. The domain analysis was officially started after the researcher and her supervisors had one agreed-upon document each from the students and faculty data. The beginning of domain analysis is considered as generalising with construct and theories (Higginbottom et al., 2013 p.6). Domain analysis is the basic step in ethnographic data analysis and involves the search for larger linguistic units that informants use to express a shared knowledge or understanding of their culture (Coffey & Atkinson, 1996; Spradley, 1980). A domain is made up of many categories (Coffey & Atkinson 1996; Spradley, 1980). Coffey and Atkinson (1996) explained that the key part of domain analysis is recognizing linguistic terms, such as metaphors used by informants, and searching for the meaning of the symbols from the

way they are used. According to Spradley (1980), the meaning of a symbol is deduced from its association with other symbols, and informants construct their cultural domain from the way they talk. The domains in this analysis were initially formed by reading through the data and searching for broad folk terms used to communicate cultural knowledge about learning in a CBL program. Each domain was further constructed using the Coffey and Atkinson format of "when": for example, I asked questions of the data such as "when was CBL like throwing someone into an ocean?" The Spradley format, using a semantic relationship such as an inclusion criteria "X is a kind of Y," was used to identify the categories in a domain: for example, "turbulence is a kind of throwing someone into an ocean." A mixture of folk terms (participants' words) and analytic terms (researcher's words) were used to construct each domain. Five interrelated domains were constructed to describe students' cultural knowledge about their transition to a CBL curriculum. Four domains linked to each other were constructed from the faculty data. The meaning of these domains is based not on the literal meaning, but on how the informants used the words (Spradley, 1979). The domains from the student data are "throwing someone into an ocean, sink or swim, turning point, just doing it, and valuing." The domains from the faculty data are: "An adaptation, trusting the CBL process, a maturing process for students, and controversies about CBL."

Taxonomic analysis. Taxonomic analysis, the second level in ethnographic data analysis, involves identifying all the terms that informants use in a particular domain and discovering the relationships among the terms (Spradley, 1979). Spradley (1979) explained that "a taxonomy shows the relationship among all the folk terms in a domain" (p.138). The aim of taxonomic analysis is to understand the cultural meaning the participants possess on the research topic. The informants were asked structured questions (verification questions) repeatedly during

the interview to confirm or dispel an assertion about a domain (Spradley, 1979). In addition, during the data analysis the researcher asked the data further structured questions and used the inclusion principle "X is a kind of Y" (Coffey & Atkinson,1996; Spradley, 1979) to identify the relationship between categories within a domain. The analyzed transcripts with the generated taxonomies for each domain were verified with the student and tutor informants.

Componential analysis. Componential analysis, the third level in Spradley's model of analysing ethnographic data, involves searching for the meaning of symbols or categories from the same domain by focusing on the differences among the symbols from other domains. Spradley (1979) explains that the aim of componential analysis is to explain informants' cognitive arrangement of a domain that they use to interpret their cultural knowledge. Componential analysis begins with going over field notes and transcripts to identify informants' phrases that suggest differences. During the focus group interviews, the researcher asked contrast questions and used contrast verification questions to identify the information that was linked to a category or symbol (Spradley, 1979). For example, the students' interview guide had some questions that generated discussions about student reaction to CBL and how different CBL was from other teaching methods. From these questions, the attributes of the identified domains were discovered and the researcher ensured that the data in each domain reflected the category. There was a clear distinction between categories (Mayan, 2001). In the first question in both the students' and tutors' interview guides, participants were asked to describe their previous teaching or learning methods. In the third question of the students' interview guide, students were asked about their initial reactions to CBL and if their reactions had changed. Similarly, tutors were asked to share their opinions on the differences between teaching in a traditional curriculum and facilitating CBL sessions. The identified information that is associated with a domain is called

an attribute and is presented graphically as a paradigm (Spradley, 1979). Similar to the above two analyses, domain and taxonomic, the researcher verified the componential analysis with the students and selected tutors.

Thematic analysis. In order to identify the cognitive principle that influenced the participants' behaviour in a CBL curriculum and recurred in most domains, the researcher had to be deeply engaged in the CBL learning culture and immersed in the data to know the participants' core values (Speziale & Carpenter, 2003; Spradley, 1979). The thematic analysis of the students' and tutors' data shows that the most important principle that underlines the domains was trusting each other and trusting the process in a CBL community of learning.

Finally, to be able to accurately present the participants' cultural knowledge on learning in a CBL program, the researcher completed the research by explaining findings, drawing comparisons with the literature, and writing the ethnography (Spradley, 1980). The researcher's observations, documented in field notes, memos from meetings with the supervisory team, and information from participants, were integrated and compared with the literature in order to clarify inconsistencies in data (Knoblauch, 2005). As with all research, the researcher has to report the findings in order to conclude the research process and meet the ethical responsibility to the participants for their efforts in the study. Participants have to read the final write up to confirm the accuracy of the report (Guba & Lincoln , 1988).

Maintenance of Rigor

Qualitative research experts agree that qualitative research must be rigorous. Rigor is the term used to describe reliability and validity in quantitative research in order to ensure the quality of the study (Guba, 1990; Morse et al., 2002). Rigor involves maintaining a truth value and the applicability, consistency, and objectivity of a study. In qualitative studies, the

corresponding concept for rigor is trustworthiness, and it involves a group of criteria used to determine whether a study was conducted in a trustworthy manner (Guba, 1990; Morse et al., 2002). The four criteria to ensure trustworthiness are credibility, transferability, dependability, and confirmability (Guba, 1990; Lincoln & Guba, 1985).

Although Lincoln and Guba's (1985) strategies are widely applied to maintain rigor in qualitative research, Morse et al. (2002) argue that Lincoln and Guba's method is not effective in assessing rigor because it cannot identify significant threats to the reliability and validity of a study during the research process. Thus, Morse et al. recommend that researchers use other verification methods during the study in order to achieve reliability and validity. The strategies that Morse et al. propose are researcher's responsiveness and verification methods such as methodological consistency, appropriate sampling, concurrent data collection and analysis, theoretical thinking, and theory development. Recommendations from Lincoln and Guba and Morse et al. were followed in order to establish rigor in the study.

Researcher's responsiveness. Responsiveness is the researcher's ability to identify all aspects of a study and adapt one's self to suit the context (Guba & Lincoln, 1988; Morse et al., 2002). According to Morse et al. (2002), responsiveness consists of the researcher's ability to change, be sensitive and creative during the study and to verify information with participants in order to ensure reliability and validity. In this study, the researcher used purposive sampling to select informants who had experience in CBL. When the researcher did not have adequate participants for the tutors' focus group, she used snowballing to recruit tutors into the study. The researcher also demonstrated responsiveness when analysing the initial interview and used the findings to select the next sample to be interviewed. For example, the researcher recruited tutors who were not part of the first group who changed to CBL in order to probe further to discover

negative case. During the iterative data analysis, the researcher continued to listen to the data by asking questions such as "what is going on here?" and "what makes the learning in CBL different from traditional curriculum?" (Jacelon & O'Dell, 2005; Morse et al., 2002). Before commencing the study, as well as throughout the study, the researcher used reflexive practice to document her knowledge about the phenomenon being studied, so that her biases were evident. The researcher was open and used sensitivity and creativity to give up opinions held (Morse et al., 2002) such as the "transition to CBL would be easier for tutors than students." She was able to effectively interview tutors who were frustrated with the CBL strategy. Furthermore, the researcher used different methods of data collection (triangulation) in order to confirm the credibility of information obtained (Guba & Lincoln, 1988). The methods of data collection the researcher used were participant's observation (field work), focus group interviews and a review of documents on CBL to ensure that the study was credible and dependable (Guba & Lincoln, 1988). During the concurrent data analysis, the researcher compared observations of the tutors and students during tutorials. She also compared the student information with tutor information from focus group interviews during data analysis.

The researcher worked closely with her dissertation supervisors during the study in order to be guided and maintain consistency in the interpretation of data for abstraction (Morse et al., 2002). The dissertation supervisors helped in deciding that the patterns identified by the primary researcher were truly based on the data provided by the researcher (Guba & Lincoln, 1988) to ensure consistency in the study. The researcher kept an audit trail including fieldnotes, transcribed interviews, and coding schemes, and made them available to the supervisory team for review (Morse et al., 2002; Munhall, 2007).

Methodological consistency. Methodological consistency is described as maintaining congruency between the research question and other aspects of the design, such as theoretical and philosophical assumptions of the chosen method, and data analysis. In qualitative design, each step builds on the next one. Hence, the research objective should fit with the selected design, data collection, and analysis (Morse et al., 2002). Because the goal of the study was to learn more about faculty and students' transition to the culture of a CBL curriculum, focused ethnography was an appropriate design for the study. There was congruency between the purpose of the study, research design, and broad research question, "how do faculty and students experience the transition to a context-based learning curriculum?" Participants recruited into the study had studied or facilitated a CBL session. The sampling plan used during the study matched the research goal and focused ethnographic design (Morse et al., 2002).

The data-making strategies of focus group interviews, observations of CBL seminars, field notes, document analysis, and memos were congruent with focused ethnography. Morse et al. (2002) suggest that data generation and analysis should be concurrent in order to maintain reliability and validity during the study. The researcher maintained concurrent data generation and analysis by transcribing and analyzing a previous interview as much as possible before conducting a new focus group interview. Credibility is described as the extent to which researchers agree that a study's findings are true about the people being investigated (Guba & Lincoln, 1988). Credibility can be grouped under methodological consistency in Morse et al. criteria for maintaining rigor. The researcher maintained credibility by reading, rereading, and reflecting on research documents such as transcripts, fieldnotes, videotapes, diaries, and files, and using triangulation to confirm information from different methods (Guba & Lincoln, 1988). While interviewing, categorizing, and writing the study, the researcher constantly checked with

participants 'member checking'. She sent her findings to the participants and asked them to check the accuracy and inform her as to whether the outcome captured their reality (Guba & Lincoln, 1988; Munhall, 2007; Morse et al., 2002).

Appropriate sampling. Appropriate sampling is the third strategy that Morse et.al (2002) recommend to ensure rigor and verify data. It includes choosing participants who best represent and have the required information and experience with the phenomenon being selected, so that the study can achieve saturation and duplication of data. In order to obtain data saturation and sampling adequacy, the researcher used theoretical sampling through the purposive selection of new participants who met the study inclusion and exclusion criteria. To account for all components of the topic, she continued conducting interviews until no new information was generated (Jacelon & O'Dell, 2005; Morse et al., 2002). Snowballing was used for the tutor focus group interview when the initial response from tutors was low. During sampling, negative cases that emerged from the initial tutors' interview were further explored by seeking participants with specific negative experiences. The researcher read the literature often to ensure that during the concurrent data collection and analysis. She covered all concepts about student and faculty transition to active learning curricula that were reported in the literature.

Concurrent data collection and analysis. According to Morse et al. (2002), iterative data analysis enables the researcher to maintain consistency in the question guiding the study, literature, recruitment, data generation, grouping, and analysis of data. Moving back and forth between study participants and data serves as a link between the information that the researcher possesses and what the researcher needs to understand. Both verbatim and interpretive and analytical methods of transcription were used to immediately transcribe the audio tape recorder after each focus group interview. However, due to the frequency of focus group interviews, the

researcher could not always ensure iterative data analysis. However, the researcher did read through the notes made from previous interviews and verified new ideas as well as existing ones while conducting the following interview.

Thinking theoretically. As a new researcher, thinking theoretically, that is, being able to think abstractly, was sometimes challenging. However, the researcher met frequently with her dissertation supervisors, engaging deeply in the data and conducting the four types of analysis using Spradley's (1979, 1980) model. These sessions allowed the researcher and her advisors to identify the meaning and cultural knowledge of the participants which they had jointly identified through learning as a community in the CBL program. To build a firm description of the participants' experience during their transition to a CBL program, these ideas were verified in subsequent interviews and new ideas were verified again with another group of participants (Morse et al., 2002). The researcher, in several meetings with supervisors and by listening to the faculty data, identified that the tutors experienced transition differently; those who had made the transition and those frustrated by CBL who had not made the transition.

Theory development. Morse et al. (2002) explain that theory is generated as a product of the research and not as a template that guides the study. As this was a focused ethnographic design, the researcher's goal was not to develop a theory but to obtain a rich description of faculty and students' transition to the culture of a CBL program. By immersing herself in the data, conducting ethnographic data analysis, verifying results with participants, comparing findings with literature, and being mentored by dissertation supervisors, the researcher was able to provide a rich description of the transition that faculty and students made to CBL.

Reflexivity. Philosophers have argued that observations are not neutral: that people's observations are influenced by their interpretation and selection of what to observe (Cruz &

Higginbottom, 2013; Hegelund, 2005). This suggests that people consciously or unconsciously select what they observe based on their interest, values, and background. For example, when taking field notes during focus group discussions, it is possible that a researcher may ignore some things. One way of handling researcher bias and subjectivity in observation is by using reflexive practice. Reflexivity involves researchers being conscious and explicit about how their assumptions, design and data collection instruments can influence the generation of data, analysis of data, and the final report (Cruz & Higginbottom, 2013; Higginbottom et al., 2013; Roper &Shapira, 2000). Guba and Lincoln (2005) also define reflexivity as having researchers consciously ask themselves questions because of their roles as instruments for data collection. Researchers identify their influences on the research during reflexive practice. The researcher was reflexive by writing down her beliefs, assumptions, and knowledge about CBL before commencing the study and continuously considering how her attitudes changed during the study. An assumption that the researcher had was a belief that first-year students would experience more anxiety during their transition to CBL than second- and third-year students. The researcher believed students' anxiety would decrease as they spent more years in the CBL program. She also assumed that new tutors might provide information rather than facilitate students' explorations of scenarios. In addition, she believed that tutors who were trained in the traditional curriculum would find making the transition to CBL more difficult than those trained in a CBL curriculum. In order to ensure that these assumptions did not affect the data generation, the researcher avoided leading questions and encouraged tutors and students to share their experiences. The researcher was open to participants' opinions, listened carefully, and was not judgemental during data generation (Roper &Shapira, 2000). The researcher explained her role to the participants and told them how she would use the study findings (Roper &Shapira, 2000).

While completing the dissertation, the researcher went back and forth to the data to ensure an accurate report of participants' experiences.

Ethical Considerations

Approval for the study was first sought from the University of Alberta Health Research Ethics Review board. Additional approval was sought from the Vice Dean of the FON, University of Alberta. Students and tutors who agreed to participate in the study were required to sign a consent form. The researcher verbally explained to the participants the potential importance of the study and assured them that participation was voluntary. Each participant was required to sign a consent form before the focus group interview. Confidentiality was ensured by using codes for each participant. The transcripts will be stored in a locked cabinet for five years. Because group members might know each other, the moderator emphasized that all responses shared should not be discussed after the interview session. The research assistants (RAs) were trained to take notes on participants' non-verbal communication. In addition, the RAs maintained confidentiality by using number codes for each participant. The consent forms were stored separately from the transcribed data. Permission was sought from participants to audiotape the interview. The participants were assured that there were no anticipated risks associated with the study (Speziale & Carpenter, 2003). Furthermore, participants were assured that they could withdraw from the study or opt to not answer questions without jeopardizing their status as either a student or faculty member in the nursing program. Participants were informed that data collected would be analyzed and summarized into a dissertation which forms a partial fulfillment for the award of doctoral degree, and that study results will be presented at conferences and be published. Participants were informed that they would not be identified in the final work because data would be reported as a group data.

Chapter Four

Results and Discussions

The purpose of this research was to learn more about the meaning nursing faculty and undergraduate students allocate to their transition from a traditional educational approach to a context-based learning (CBL) culture. The researcher wanted to explore faculty and student perspectives on the transition to a student-centered learning curriculum. Being educated in the traditional method and having lectured to students using the same method, the researcher did not know what the transition to CBL would be like for nursing faculty and undergraduate students. To date, there are no published reports describing the culture of transition of nursing faculty and students' to CBL. In addition, there are no reports on the culture of transition to CBL among direct entry and After Degree nursing students. In order to accurately capture and describe the informants' transition to CBL, the researcher tried to maintain an open mind. Any biases the researcher might have had were identified through reflexive practice. For example, the researcher had an assumption that first-year students would experience more anxiety during their transition to CBL than second- and third-year students, and as such, she tried to avoid asking leading questions during interviews. A brief description of the CBL program provides a context for the study. The researcher integrated literature and her observations while discussing the findings and the contributions of the study to nursing about transition in CBL. The final part of this chapter focuses on the cultural themes from members of the learning community, including students and faculty. Findings from the students' data are presented prior to those of the tutors'.

Description of the CBL Program and its Culture

The study was conducted in an undergraduate nursing program in a large western Canadian university where CBL is the primary mode for learning about nursing. The

Collaborative program is four years in length and is offered at four different geographical sites. Data collection for this study occurred only at the primary university site. The students enrolled in the Collaborative Program had high school diplomas. A small number had completed up to one year of university courses. The bilingual curriculum is also four years in length and the program allows students to study nursing in both English and French. The Bilingual students have a high school diploma and they study their first-year courses (anatomy, physiology, psychology, sociology, statistics) in French in a faculty of the university where French is the language of instruction. The rest of the courses (nursing courses) for the remaining 3 years of the Bilingual program are taken in English and French at the Faculty of Nursing (FON). The Bilingual students join the first year of the After-Degree program during the second year of their program for nursing courses delivered in English. The Bilingual students remain as a separate group for courses delivered in French. The students in the After Degree program had completed a previous undergraduate degree from another discipline, usually in arts or science. A small number of the After Degree students in this study had completed a graduate degree. The After Degree nursing program is a two-year program with a one-month break midway through the program. The CBL program was structured so that each term had a six-week tutorial course and six-week clinical course. The first term of first year of the Collaborative program involves students having theory courses, followed by clinical courses. In the second year of the Collaborative program, the students either take theory courses followed by clinical courses, or begin with clinical courses followed by theory courses. Each theory course consists of four to six scenarios based on real nursing practice situations.

Some courses in the After Degree and Bilingual programs are organized in such a way that in each term the students have two weeks of classes followed by two weeks of clinical work

over a 13-week term, while in other courses, the clinical and tutorial sections are done concurrently. First-year After Degree students begin their program with one day of theory and one day of clinical work each week. The second-year students have two weeks of clinical work and then spend two weeks in the classroom, or they may start with two weeks in the classroom followed by two weeks of clinical work. Three-hour skill labs are organised and offered weekly for students to practice nursing clinical skills. Similar to the Collaborative program, each course in the After Degree program has four to six scenarios based on situations that nurses have encountered in practice.

In all programs, fixed resource sessions occur. There are special lectures provided by invited guests in a lecture theatre that has a capacity of 150-200 students. All undergraduate students also attend traditional support courses designed to supplement knowledge development in sociology, anatomy, physiology, psychology, pathology, philosophy, and political science.

The course materials for the Collaborative, After Degree, and Bilingual programs include learning packages and textbooks. Each learning package contains learning goals, key concepts, a description of an actual nursing scenario, and trigger questions. The learning goals are grouped under four main subheadings: client, health, nursing, and research. Clients in the scenario are described in terms of growth and development, family and environment. The sub-topic, "health," encompasses topics such as determinants of health, health promotion, epidemiology, common life experience, alterations in health, and primary health care. Students discuss topics related to discipline, profession, practice, and trends and issues in nursing under the sub-heading "nursing." The last sub-heading of research involves students collecting data on evidence-based practice/nursing in the scenario they are discussing. There are also concept maps to help students to learn. The course textbook is the primary source of information recommended to students.

Students are also encouraged to find and share at least one evidence-based article relating to their specific topic.

In the three programs, a course may be taught by two or three tutors. Each tutor has up to 28 students who are divided into two seminar groups of 14 students each. The tutor spends half of the three hours of course time with each group. In the first year of the Collaborative program, the tutor has a maximum of 14 students and spends all three hours with that group to offer more direction in CBL development.

In most cases, tutors hold their seminar groups in classrooms adjacent to each other so that each tutor can move in and out with little time spent changing from one class to another. Students are also able to call their tutor if they need the tutor's help in their seminar group. The classroom at this site is arranged circularly with students and the tutor sitting around the table. Each classroom has whiteboards, a computer, and a projector. Students often use the smart screen (computer) and projectors for presentations. There is a simulation lab on the first floor of the building, which is well-equipped for skill learning. Students have weekly scheduled lab days with a tutor and can also sign up for additional time to practise their skills with or without a lab instructor present.

Tutorial groups meet for three hours twice a week for each six-week course or seven hours a week for each 13-week course. Students learn nursing theory by discussing real practice scenarios that are structured to highlight one or more of the determinants of health as defined by the Public Health Agency of Canada (2003). Students begin discussing health promotion topics and nursing concepts in year one. They continue to build on this base throughout their program as they discuss more complex patient situations. By the end of their program, nursing students have dealt with several scenarios that feature individuals and families from different

backgrounds with different risk factors, health conditions, and comorbidities. Students also complete practical in both community and acute care settings where individuals and families are the focus. For Students in the Bilingual nursing program offering courses where the language of instruction is French, they have additional learning objectives related to the needs of official language minorities.

The process in a pure CBL curriculum begins with a facilitator presenting a scenario to a group of five to 10 students, and is followed by four phases. (Chikotas, 2008; Williams, Anderson, & Day, 2007). In the study setting, the first phase involves brainstorming in which the students take turns reading the scenarios which are written in blocks. The students brainstorm either by reading the scenario line by line or in blocks, and also use trigger questions to identify major concepts that they need to explore within the scenario. They ask the trigger questions until no new topics emerge. Then, they group their topics into major headings such as client-growth and development, health-pathophysiology, medications, and nursing, the latter of which includes nursing models and nursing roles. The students encourage each other while brainstorming. For example, a student might say "great job brainstorming," which in an active and cooperative learning setting results in great achievement (Johnson et al., 2006). They complete phase one of the process by randomly sharing the topics to be investigated. The tutor tries to be present in each group during brainstorming. In phase two, the group members seek information on their assigned topic through individual research. About three days before reconvening, they share their research through electronic platforms. Phase three involves a group discussion about information gathered. The students read over the scenario before discussing their research. They develop a care plan when they have finished sharing all their research. In phase four the students reflect on the content and the process of their learning (Chikotas, 2008; Williams et al., 2007). Scenario

management teams have been formed to enhance the smooth running of seminars and to ensure that students cover key concepts. The scenario management team involves, at minimum, a leader, timekeeper, and recorder. Students take turns being a leader in the scenario management team and the team engages in group evaluation at the end of each scenario. Besides scenario management, team leaders also guide peer evaluation. There are really two peer evaluations, one before midterm and the other after midterm. There may or may not be a mark given for peer and self-evaluation. However, the peer evaluation should reflect students' ability to evaluate their peers and their peers evaluation of them (B. Williams, personal communication, March 19, 2015).

The grading system is based on the main University grading system. Students receive their grades in a CBL course from their mid-term and final exams, which are in a multiple choice format. The exams are based on key concepts identified in the learning packages. Questions are written at the application level in addition to the recall level. The questions usually entail a short description of a situation similar to the one discussed in class, followed by specific questions. Some courses incorporate a scholarly activity such as paper. For example, in one course the students were required to write a letter to a member of the legislative assembly (MLA) about a change in legislation they would like to see regarding better regulation on farm safety.

The tutors have a half day faculty orientation about learning generally and self-directed learning specifically. Topics discussed in the faculty orientation for tutors include course sequencing, theory around the Cone of Learning by Edgar Dale, student-centered teaching, and working in teams. Managing conflict among teams and reviewing levels of questioning are also discussed in the tutor orientation. In addition, tutors as a course group (teaching team) have a weekly meeting with their course leads.

The CBL culture involves the interaction that transpires in the classroom in order to have a learning community. From the description of the CBL program, learning in CBL entails students working in small groups to achieve a learning goal. Similarly, tutors work in teaching teams to promote consistency in the program. The findings from this present study provide a detailed description of the culture involved in the transition to a CBL program from both faculty and student perspectives.

Study participants. Data saturation was achieved through analysis of transcripts of focus group discussion and individual interviews. The participants for this study were 26 students in the undergraduate program and 17 faculty members in the FON. Of the 26 students who took part in the study, 14 were Collaborative students. Among the Collaborative students, 13 were directly from high school while one had some years of university education. The second group of students (n=12) were After Degree students and Bilingual students (n=3). Three students from the Bilingual program volunteered to participate in the study and they were part of the first year After Degree students' focus group. The demographic characteristics of the students' informants are presented in Table 1. The students' data were collected in a series of focus groups or individual interviews as shown in Table 2. Of the 17 tutors who participated in the study, the majority had a Master degree and had taught in the Faculty of Nursing over 10 years (Table 3).

There were 10 student focus groups with six focus groups for Collaborative students (years one, two, three) and four focus groups which is a mixture of the After Degree and Bilingual students (years one). Of the 26 students who took part in the study, 14 were Collaborative students, 9 were After Degree and 3 Bilingual students. There were seven tutor focus groups.

Because of a low response from both students and tutors, most focus groups had two participants, except for one student focus group which had five participants, and one faculty focus group, which had six participants. In two different focus groups for the students, only one student met with the researcher at the pre-arranged time and place; thus, these two separate focus groups became individual interviews. Three individual interviews were conducted for faculty members.

Table 1: Demographic Characteristics of the Students' Participants

		Gender		Highest level of Education			
Characteristics of student	n	Male	Female	H	S	U	G
Collaborative program	14	1	13	25	1	0	0
Bilingual program	3	0	3	0	3	0	0
After Degree program	9	0	9	0	0	8	1

Note. H=high school, S=some university, U=Undergraduate Degree, G=Graduate

Table 2: Student Focus Groups

Code	n	Characteristic of Focus Group
C1a	3	female
C1b	3	All females
C2a	3	All females
C2b	2	1 male, 1 female
C3a	2	All females
C3b	1	All females
AD1a	1	All females
AD1b	2	All females, n = 1 Bilingual student
AD1c	4	All females, n = 2 Bilingual students
AD2a	5	All females
B1a	2	All females , Bilingual students

Note: C = Collaborative Program students, 1= first year of program, 2 = second year of program, 3 = third year of program, AD = After Degree Program students, AD = After Degree Program and Bilingual Program students, B1a = Bilingual students in first year After Degree focus group, a = first interview in the year of program, b= second interview in the year of the program, c = third interview in the year of the program

Table 3: Demographic Characteristics of Tutors (n = 17)

Characteristics	n
Highest level of education	
Bachelors	0
Masters	11
PhD candidate	1
PhD	2
Missing	3
Years of teaching in the Faculty	
0-10	3
11-20	6
21-30	0
31-40	2

Table 4: Tutors Focus Groups

Code	n	Characteristic of Focus Group
FMp	3	All females
FMa	3	All females
FMb	2	1 male, 1 female
FMc	6	All females
FMd	1	Female
FMe	1	Female
FMf	1	Female

Note: FM = faculty member, p = pilot test, a = first focus group interview, b = second focus group interview, c = third focus group interview, d = fourth focus group interview, e = fifth focus group interview, f = six focus group interview

Interpretation of Focus Groups and Interviews

Spradley's (1979, 1980) model on ethnographic data analysis was used to analyze the student and faculty data. In both sets of data, four types of ethnographic data analysis were conducted: domain, taxonomic, componential, and theme analyses to search for the components of the culture of transition and the relationships among these components (Coffey & Atkinson, 1996; Spradley, 1980). Domain analysis, the basic step in ethnographic data analysis, involves searching for symbols that informants use to communicate their cultural knowledge. A mixture of folk terms (participants' words) and analytic terms (researcher's words) were used to construct each domain. Because there were not many similarities between the students' and faculty data, the results are presented in two parts with integration where similar views were

shared by the two groups involved in the study. The researcher will present the findings from the students' transition experience first, followed by the faculty members' experience.

Students

Five interconnecting domains were discovered in the student data: "throwing someone into an ocean," "sink or swim," "turning point," "just doing it," and "valuing." The domain *"throwing someone into an ocean"* involves the students' first reaction to CBL which they described as difficult, overwhelming, uncomfortable, and confusing. *Sink or swim* is the second domain and represents the cultural meaning informants use to describe the learning process in a CBL program. In this domain, the students indicated that their failure or success (sink or swim) in the CBL program depended on multiple factors related to classmates, tutors, and themselves. The third domain, *"turning point"* represents the students' description of how they made the decision to succeed (swim) in CBL following their initial overwhelming experience during their transition. *"Just doing it,"* the fourth domain, is about the coping skills the students developed in order to succeed in the CBL program and make a successful transition into the CBL culture of learning. *"Valuing,*" the last domain involves the students' assessment of how CBL benefits them as students, and how they expect to continue reaping its benefits when they become registered nurses (RNs).

The students' transition to the CBL culture described in this study is consistent with models on transition. Theorists who study transition suggest that people experience emotional discomfort when there is a change in the continuity of their environment or activity and the discomfort ends with a sense of stability (Ftthenakis, 1998; Meleis, Sawyer, Im, Meleis & Schumacher, 2000; Sander et al., 2005; Teunissen & Westermann, 2011). The findings from this study suggest that the nursing students' transition follows a trend similar to life transition

described by Meleis et al. (2000) in which people moved from uncertainty to stability through the transition proccess. Similarly, the students were initially confused and found CBL difficult. As students progressed through the program, they developed coping skills, and by the third year they were comfortable and were able to identify some benefits of CBL. New findings that emerged from the study were that CBL was out of students comfort zone, students found writing exams in CBL difficult, CBL tutors facilitated differently, Collaborative and Bilingual students wanted more directions on their learning while After Degree students felt their previous experience was not used in CBL and all students had different levels of anxiety when moving to clinical practice. Lastly, the students would like both lectures and CBL to be used in their education.

Throwing Someone into an Ocean

The domain representing the students' initial experience with CBL was "throwing someone into an ocean." Two categories, "stepping out of comfort zone" and "turbulence," emerged in this domain. The students indicated that the first time they experienced CBL it was difficult and confusing. The students used "first time" to refer to either the first six weeks or the first year of CBL. They explained that their initial experience was like "throwing them into an ocean" for many reasons, such as not being familiar with CBL and not receiving enough direction. The majority of the students had not used CBL before coming to the program, and despite having a demonstration in year one of the Collaborative program, they found it very confusing. A third-year student said, "the only teaching technique that I was used to was a traditional teaching method in which there will be a professor or a teacher at the front of the room and the student absorbing and taking note of the content of the teaching material" (C3b, Nov. 2013, p. 1). The student's view of teaching aligns with past world views that teaching

involves transferring information from the teacher to the learner. Learning occurs when students absorb what the teacher says and they are able to retrieve the information when needed, while knowledge is having a content understanding of a course space (Johnson et al., 2006, 2014). This paradigm is based on John Locke's assumption that a student's mind is a blank sheet of paper to be filled by information from the instructor (Johnson et al., 2006, 2014). The student is passive in the learning process, and knowledge is conveyed from the teacher to the student. However, this belief about teaching and learning was faulty and eventually evolved to a new teaching world view based on theory and research.

Only five of the 26 students who participated in the study had used some form of CBL in their previous education. Even those previously exposed to CBL affirmed that it was difficult at the beginning. Students quickly realized that their previous way of learning was not working in CBL, which initially moved them out of their comfort zone. This finding is consistent with studies conducted on students' experience with changing from traditional methods of teaching and learning to problem-based learning (PBL). Students who spend more years in the lecture method of learning often have a more negative reaction when exposed to PBL (Biley, 1999; Smith and Coleman, 2008). Although students initially experience difficulty with the new paradigm of teaching, which involves active teaching methods such as CBL, the students are actively constructing and discovering their own knowledge (Johnson et al., 2006, 2014). Both students and tutors construct knowledge in the new paradigm through interaction. In this study, most of the students had come directly from high school, where the main teaching method is still lecture-based. The After Degree students also shared that they graduated from programs that primarily used lectures as the main form of instruction. Consequently, both sets of students found the transition into a CBL curriculum new and difficult.

Stepping out of the Comfort Zone

Because the lecture method was the method of education that the majority of the students had experienced, changing to CBL required the students to step out of their comfort zone, making the initial transition experience described as "throwing someone into an ocean."

I think that everybody has sort of a natural instinct to perform in certain roles and then being told that you have to fill within this structured roles and you can't be the same role every time. You have to be advocate, leader, time keeper I think it was just getting used to that, stepping out of your comfort zone and trying something different. (C2a, Jan. 2014, p. 4)

Johnson et al. (2006, 2014) describe the CBL approach as cooperative learning which comprises small groups of students working together to achieve a common goal by enhancing their own and their classmates' learning. Cooperative learning is foundational to CBL/PBL and the purpose is to develop students' competence to learn and continue to learn. Cooperative learning entails social interaction between students, tutors, and the course material. Therefore, it requires tutors to create a conducive environment to enhance students' learning as they come out of their comfort zone.

Students who were quiet when they entered the CBL program indicated that initially speaking in a CBL class took them out of their comfort zone because they did not know their classmates. A first-year student said, "um, it was kind of scary and uncomfortable I thought. Um, just having to talk in front of other people that you didn't know and um, yeah it was overwhelming I think" (C1b, Nov. 2013, p. 3). Besides speaking in front of their peers, which was uncomfortable, some mature students suggested that they were uncomfortable with CBL because of the variation in group members' ages and backgrounds. The After Degree students indicated that CBL was stressful for them initially because they felt their backgrounds were not recognized and were not helping them in the new program.

Like, we have already done at least four years of university. We are used to achieving at [a] certain level. We have to have [a] certain grade to get into this program. There are a lot of high

achievers and people that care a lot about marks and performance. And so to be in a situation where we have no confidence in, like, our past experiences and, like, can be very stressful. . . (AD2a, Dec. 2013, p. 6)

Although CBL is based on adult learning theory and cognitive learning theory which emphasize using students' prior knowledge in learning (Knowles, 2005; Wilkerson & Gijsalaers, 1996), the After Degree students in this study were frustrated they could not maintain the grade point they graduated with from their previous education. The After Degree students felt their past educational backgrounds were not used. A major finding and contribution of this research to the literature on nursing students' learning in CBL is the After Degree students feeling of frustration regarding their performances in CBL. A recommendation to reduce the frustration among After Degree students is to make them aware at orientation that it is possible they may not maintain their academic standing from their previous program. The After Degree students' past experience was in the traditional lecture approach, where they learned how to study and how to excel in the University environment. One reason students might have felt that their past knowledge was not recognized was that they were in a new discipline, learning new concepts and using a different learning method. Thus, students might have felt that their specific discipline background knowledge was not used, even though, in CBL learners' prior experience, both academic and life experiences are emphasized. This study finding reflects findings about returning RNs in Smith and Coleman's (2008) study. The returning RN students had negative feelings towards PBL because they felt their past experiences were not recognized and they did not have direction in their learning. On the other hand, the Collaborative students in this study felt they had been taken out of their comfort zone because they had no background knowledge in nursing and had not been to the clinical setting, so the transition was difficult.

It would have been the background in nursing that would have been a lot more helpful. Because CBL, you pick it up fairly quickly, but the nursing you don't know what to know until you've

been there. And you can't teach other people until you've, I guess you've had the chance to be taught yourself. (C3a, Nov. 2013, p. 6)

A bilingual student expressed that learning in CBL was new and a big change to her
I think um just like what they've said because it's such a big transition from lecture based to CBL. Initially I think the tutor plays a huge role as a guide that can also change how we progress I guess. It was really kind of new for me doing it. Her presence was much better . . . (B1a, Feb. 2014, p. 11)

Another possible explanation for the students' frustration and perception that their past experience was not used was that their learning in CBL in their first year is based on the assumption that students can learn intuitively by being put in groups and allowed to generate their own learning by discussing and socializing with their peers and tutor (Britton, 1990; Johnson et al., 2006, 2014). Britton (1990) discuss that in collaborative learning students are not given initial instruction, objectives, and direction by the tutor. Britton (1990) argues that tutors should not provide students with direction in order to empower them in their learning. Britton's collaborative learning is less structured and more student-directed compared to cooperative learning, although both share similar characteristics about learning that occurs through interaction with peers and tutors (Britton, 1990; Johnson et al., 2006, 2014). The experience of the students involved in this study suggests that they do not support learning without direction from faculty. They prefer cooperative learning, which aligns with the CBL approach to teaching and learning.

Creating a two-to-three page summary handout to share with classmates that emphasized key points was another activity in CBL that was out of the students' comfort zone. The students' transcripts were filled with linguistic symbols such as "difficult to condense notes," "don't trust self when making a handout," and "spends so much time on handout." The students said they had difficulty trusting that the needed information was included in their handouts and deciding

which information was important from the handouts they received from their classmates, even though the information was from their textbooks and reviewed by their tutor.

> Like, you know, everybody has to make a handout. Like, you are assigned a topic for the different scenarios. So [I] am just, like, what if this person didn't cover everything we are supposed to know? Or missed a couple of points. So then when I'm going back to study for the final, I'm just like, as all my time is spent to check to see if the information is there. Then I'm like, no, I need to study. It adds more stress because I'm like, I don't 100 percent trust even myself when I'm making the handout. (C1a, Nov. 2013, p. 6)

A bilingual student shared similar opinion about difficulty preparing a handout in CBL

> Learning kind of what to put in the research and how to explain it was kind of interesting for me. Because on one hand you don't want to put too many extra details in the research. You want to keep it to like what is necessary to know but at the same time you want to know the details to be able to explain it if anybody has a question or is not sure about something. You are kind of finding a balance (B1a, Feb. 2014, p. 11)

Condensing and reading the handouts was time consuming for students, which added to the increased workload in CBL. A third-year Collaborative student asked, "Really? Is somebody going to read six-page papers when there are 14 of them in a few nights? So I find that difficult just to try to condense the notes exactly" (C3a, Nov. 2013, p. 6). Similarly, a first-year student commented on the workload, "Hmm (silence). What I could speak to is [the] difficult[y] adjusting. Seriously, it's difficult. Because it's like, even NURS 194, you think 194 is going to be better, but you find out that what you have to read in NURS194 is far more than [for] NURS 190" (C1a, Nov. 2013, p. 8). Although creating a summary of key content was difficult for students, it is an important skill they need to acquire going through the CBL program. This is because as registered nurses they will be required to review new and changing information about their patients before and during care. Furthermore, being baccalaureate graduates they could be writing papers for presentation during their practice and those who continue to graduate school will need to know how to write academic papers. Each student in a CBL group is expected to

contribute to the learning process, a condition that must be met where there is individual and group accountability so that there are no "hitch-hikes" (Johnson et al., 2006, p. 1:18). The tutor assesses each student's contribution and provides support to students who need help in the course. Johnson et al. (2006, 2014) suggest that the goal of cooperative learning is to ensure each group member is developed to achieve the course and program goals. This is assessed through assessing individual contribution and responsibility in the group.

The students shared that in the first year, they were so nervous and anxious that some classmates withdrew from the program and wondered if they themselves could continue.

and then everyone else around you is anxious. Like I know in our first year group we started with what it was fourteen people we got down to eight, ten within half. Half dropped within before six weeks was up. So it makes you nervous. You are like, what? Can I do this? (C2a, Jan. 2014, p. 13)

University education can be initially stressful for students and demands personal adjustment. Cooperative learning has been shown to improve university students' mental health, such as increased self-esteem, and results in students forming caring and lasting relationships (Johnson et al., 2006).Through students' interdependence on one another, discussing and assisting each other to learn the course content, they support each other and share their success. On the other hand, students' university experience can be a failure if they do not complete their program or recall their experience with resentment (Johnson et al., 2006). Hence, students in first year require support from their tutor to persevere through the initial transition in the new approach to teaching and learning (Johnson et al., 2014). For students learning to be nurses, the CBL approach is beneficial to them for their future practice because they have the opportunity to learn about caring behaviour in their program as they interact daily with each other.

The present study findings show that learning in a CBL program is out of the students' comfort zone because of the students' background with traditional instructional methods.

Therefore, CBL tutors require good facilitation skills in order to help students transition from the traditional approach to CBL. From my observation in CBL tutorials, especially second year After Degree and third year classes, the students managed to reduce the volume of material by grouping the research topics and not repeating what other peers had discussed. The students dialogued, asked themselves why they needed to research the topics they had agreed upon, and they made sure each person understood what was expected from his or her topic of research—all of which concurs with the Socratic method of teaching (Johnson et al., 2014; Savin-Baden & Major, 2004; Pijl-Zieber, 2006). At the same time, students made sure they did not miss any concept during their brainstorming. They asked for clarification from their tutor about any topic they had difficulty with and they related their discussion to their critical thinking questions, clinical experience and NCLEX exams. Some seminar groups negotiated what they needed to review for their review class. During their discussion, the students kept their initial presentation to less than ten minutes, wrote on white board and used their textbooks as well as different teaching aids such as power point slides and videos to help their peers understand the content.

Increased workload, anxiety, being overwhelmed and worrying about not discussing important information when studying in the CBL/PBL program have all been reported in the literature as initial concerns for students (Biley, 1999; Lohse & Shafer, 2007). For students in this study, their cultural knowledge in the transition to CBL was not completely different from what has been reported in the literature. What were different were the detailed explanations the students provided about the things that were challenging for them in their initial stage of transition. The participants' previous schooling was so different from the CBL approach that the CBL process (speaking in front of class mates, making summary handouts, an increased volume

of information to read and not having specific direction) required them to step out of their zone of comfort.

Turbulence

The second category related to throwing someone into an ocean is "turbulence." All informants referred to this emotion when they were asked to describe their initial reaction to CBL. The feeling of "turbulence" was linked to students not understanding the CBL process and the difficulty they had in selecting what was important to know from the volume of information they discussed in the seminars. From the first year focus group, a student explained:

> . . . when I realised I was coming to the program they provided on our eclass like a breakdown what CBL is. What kind of things are involved in group process? So I read through that and I was confused. I thought it was just a small aspect of our seminar. I didn't realised it was the full deal for every day we go in that's what we going to be doing for the three hours. (C1a, Nov. 2013, p. 4)

Another contributing factor to making the CBL experience turbulent initially for students was that they felt the explanation of CBL was not sufficient and the activities involved in CBL did not relate to the explanation given to students: "the first time I ever heard the term was orientation in this program and if I flash forward now two years here later, I don't feel it captures what we do" (AD2a, Dec. 2013, p. 3). Lack of familiarity with CBL and an insufficient explanation of CBL created a transition that was turbulent. Participants explained that they did not know which information was essential to take away from the seminar discussions because they received little guidance on whether what they were doing and learning were right or not:

> but I think in Nurs 190 you can almost sum it up like throwing someone who has never swam before in an ocean and tell him to swim. You know what I mean like the university is so overwhelming. Like the campus is so big there is so much going on and you do not know what is going on in class. Like you have to direct yourself. The teacher doesn't say anything ever. (C1b, Nov. 2013, p. 4)

From the faculty data, the same observation was made about Collaborative students being stressed in the first year of the program. A faculty member noted that first year students were often tired by the end of their first six weeks of CBL:

> Probably because I teach in first year. I have students that are coming in and they are very excited about being in nursing. It's a difficult program to get into. They are very bright students, they are keen to work hard, and by week four or five they are crying. They are exhausted, they stressed, they are, you know they can't cope. (FMa, Nov. 2013, p. 8)

The expectations for tutors in cooperative learning include communicating the learning objectives, explaining the work to be completed to students and monitoring the groups and intervening when they require assistance (Johnson et al., 2006, 2014). Also, the tutor evaluates student learning. Obviously, tutors are not to tell students the information in CBL (Johnson et al, 2006, 2014); hence, students had the perception that they were not receiving adequate direction even though their course packs had the learning goals stated and their instructors were present in their tutorials.

Students further described their transition to the CBL program as turbulent because in the beginning they could not differentiate between what was important to know and not know from their seminar discussions and the information in the scenarios:

> I feel for myself the first experience it was more like that kind of chaos that comes with learning something new in trying to figure out what it was. And the feeling that I have that and in some way continues throughout all my experience with CBL is that I found in more traditional learning situation or setting you get pretty clear idea of what I will call bones of the course and so you know that when you need to study. . . . But with CBL in the beginning especially there was I had no idea of what is bone, and what was meat and what was added on extra flesh and so that was stressful. (AD2a, Dec. 2013, p. 5)

The researcher observed that in both first year Collaborative and After Degree CBL seminars the students were quieter with only a small number talking. The students in these groups frequently read their information. During brain storming, they followed the guidelines

provided. For example, first year Collaborative students used the format "what, so what, now what" and asked their two critical thinking questions. Based on the researcher's observation and field notes, the first year students' questions were at a knowledge level at the beginning of their six weeks; by end of the six weeks, they were asking higher order questions. Unlike first year students, third year students provided two critical thinking questions and highlighted three main points from each of their presentations before going deeper and discussing the topic they have been assigned. Third year students helped each other to learn difficult concepts that they might not understand or had encountered in clinical. The tutors for the first year groups that I observed fulfilled the expected roles of cooperative learning tutors by providing the students with more direction by modifying the students' questions, asking questions on the content and pointing out what students should expect in their exams (Johnson et al., 2006, 2014). As a guide on the side, the tutor explains strategies learners can use in learning and links the concepts in the subject to students' past knowledge (Johnson et al., 2006). The students in the seminar groups mentioned during the focus group interviews that they were satisfied with their tutors' style. However, some students from other groups did not have this experience. Researchers have reported that students often have challenges with PBL curriculum because of their lack of knowledge about group process and learning (Allen, & White, 2001; Carrera et al., 2003; Vahidi et al., 2007). These researchers have recommended that students should be given a workshop on PBL and provided adequate time to adapt to the PBL process. Furthermore, PBL tutors are to guide their students by probing students' knowledge, engaging them and providing constructive feedback to students (Dolmans, Gijselaers, Moist et al., 2002; Dolmans et al., 2005; Hein, 1996; Pijl-Zieber, 2006). The undergraduate students in this study did receive a demonstration of CBL during orientation but this may not have been sufficient.

The students also mentioned how they struggled with writing examinations in the CBL program. Despite the fact that exams were also scenario based, very similar to their course scenarios and focused on core concepts outlined in their learning packages, writing the first exams in CBL was difficult for students. Participants explained that part of the difficulty in writing one final exam was because they learned slightly different things in their CBL groups. Thus, they perceived some discrepancy between what they learned and what they were tested on. Also, they did not know which information was important from their seminar discussion despite the delineation of core concepts for each scenario. A student in the after-degree program shared her frustration:

> So the marking guide for it is stupid like in my opinion and then to be tested on it within the lecture setting. The instructor for the lecture doesn't know what each seminar talked about. So who knows if each class, or each seminar group was able to cover the same material and learn the same things and then come back and have exams on it like I think the leader needs to be inform about CBL . And there needs to be a different way of marking rather than marking on a multiple choice exam that you don't even know if the students had that education in. So, it's yeah, I'm not a big fan of CBL. (AD1b, Feb. 2014, p. 3)

These words suggest that the student perceived inconsistency between the teaching method and the evaluation method, which should not occur. Johnson et al. (2006) suggest that the managerial structure of the classroom, entire school and district must be congruent with the cooperative learning model. Hence, these authors recommend that tutors and administrative staff should work in cooperative teams similar to students in cooperative groups in order to have consistency in the faculty. In the Collaborative focus group, a student expressed similar concerns about writing exams in CBL:

> I will say my experience is similar. Well, for me my group in CBL had covered a lot of information and I knew my exams will cover also a lot of information but when it came to time of studying I wasn't sure if I should be reading all of the textbooks which are the confirmed peered review literature that we've been given or should I use all of the writing and teaching materials from my classmates because we don't know the quality of it. . . (C2b, Jan. 2014, p. 6)

Faculty members who were involved in this study concurred that one of the most difficult things for students was writing one common exam in CBL:

> one of the biggest challenges of our students is the exams we have common exams and students do not find the exams easy. And I think this is one of the things that happens in CBL is that we have the objectives or the concept maps or both and our exams questions from I think from tutors perspectives fit this but they are pretty much all application and students don't necessarily are that necessarily able to apply that in . So they feel like they are going to an exam without a clear idea about what is going to be on the exam. (FMc, Feb. 2014, p. 9)

Since all tutors and students use the same learning packages comprised of a list of key concepts, a scenario and several trigger questions (and students are also encouraged to use their textbooks as their preliminary source of data), it is not expected that they will experience intense difficulty in writing the exams. However, the finding from this research confirms Kaufman and Holmes (1996) report that PBL students do experience anxiety about writing exams at the end of each course. Similarly, Janing (1997) reports that while multiple choice questions (MCQ) do measure a higher level of cognition in Bloom's classification they may not measure the reflective and critical thinking students use in discussing scenarios. Based on this, Janing concluded that the thought process used in scenarios is not reflected in MCQ. Considering that different reasoning skills are used in scenario discussion and MCQ, this might be one of the explanations for students finding the MCQ exams difficult. Even though MCQ is a recognised testing tool in active learning programs such as CBL, they have to be a routine part of the students' learning process (Johnson et al., 2006). As a daily practice in an active learning program, the student group could practice using some MCQ in seminars. They then each should sit for the test with the aim of scoring the questions correctly. Students then retake the MCQ in their cooperative groups and ensure that all the class members comprehend the questions they got wrong and have learned to answer the questions right (Johnson et al., 2006). Once students go through these steps

of practicing MCQ in their groups, taking the test individually and reconvening in the group to take the test as well as explaining those questions they do not understand to each other, they should not be as anxious in taking the end of term tests as well as preparing for the National Licensure Examination (NCLEX).

CBL students do communicate with their peers from other seminar groups. The informants in this study shared how differences among CBL groups also made the transition turbulent for them. Students conceptualized subjectivity in CBL using key words such as "wonder" and "ambiguity." An extract from the After Degree focus group transcript explains the students' view about subjectivity in CBL: "hearing that other groups doing things so differently. Sometimes we all wonder what is the way, like which is the correct way, right. . ."(AD1c, Feb. 2014, p. 10). Given the unique nature of how CBL is facilitated, a vital finding of this research is students' report of differences in what they learned in spite of the fact that they were taking the same course but in different seminar groups and with different tutors. There is no study in the literature suggesting that students were concerned that they learned slightly different things in their CBL groups within the same course. To decrease differences among tutors, teaching teams involving two to five tutors teaching the same course are formed to share their tutoring skills and enhance the quality of their teaching (Johnson et al., 2006).

Some students were unhappy with CBL because they received little feedback from their tutors. The participants in this study expressed their desire to know that what they were doing was right especially in the beginning when they were new to CBL: "But I feel like mine I get very, very little feedback. Like I know people in other seminars who have their papers and handouts kind of scrutinized. But like I never really got any comment on how my writing is or anything like that" (C1b, Nov. 2013, p. 5). In contrast to the students' report, the literature

suggests CBL tutors are required to frequently assess students learning through observation and questioning them about what they have learned and areas they find hard to comprehend (Johnson et al., 2006). From the researcher's observation, some tutors operate on a "no news is good news" philosophy. If there are gaps in research, tutors will comment but not otherwise or sometimes with a casual "good work" or "well done." One of the CBL tutors the researcher observed told her students, "you guys want more feedback; you don't believe me when I say you will be fine." Even though the tutor had assured the students they would be fine, the students were not satisfied. The tutor provided the students one-on-one feedback and the researcher observed the students being happier with their personalized feedback than the general comment to the class. The after-degree students expressed dissatisfaction with their marks in the CBL program and the effect of their marks on their overall grade point average:

> Last term . . . there were categories like everybody was given for if you, you know excel in this area you get whatever out of five. But there was only, the papers were marked out of five marks. And you either got zero or one in each area. So I mean if I got four and you got a five. You got a hundred and I only got an eighty like the percentage overall mark was dramatic even though the tutor might think oh I'm just docking her one in the area. . . (AD1c, Feb. 2014, p. 15)

The Collaborative students were more concerned about receiving direction and feedback on their learning from their instructors than the After Degree students. They seemed to be expecting something different when they came to the University. The after-degree students were more concerned about maintaining their previous performance used to secure admission into the program. White (2007) reports that both the PBL and traditional students were initially extrinsically motivated to obtain good grades. The bilingual students shared similar characteristics with the Collaborative students in that they wanted more direction and feedback about their learning (Biley, 1999; Smith & Coleman, 2008). Another important finding from this present study is that the After-Degree nursing students focused on their academic performance in

CBL and their dissatisfaction with CBL was because their grades did not reflect their academic standing in their previous programs.

White (2007) reports similar findings among medical students where the students struggled to adjust in the PBL program because the previous learning styles they used in their undergraduate programs were not effective in the PBL program. As a result PBL students need to change their learning methods to guide their studies. The After – Degree students also wanted the tutors to inform them about the most important information to study and to start their learning with provision of content information before using scenarios. This request was unlike the diploma students in Darvill's (2003) study who reported they used their past knowledge in their undergraduate program and were satisfied learning in a non-structured PBL program. The students in this study were not in favour of starting their learning with a situation (scenario) because they had not been to clinical nor did they have foundational knowledge in nursing. From the participants' experiences, the notion of commencing student learning with a situation contradicts Freire's (2000) description of adult learning. Freire supports problem-posing education and recommends that adult learning should start with a situation and teachers should not deliver the content in lectures, a view shared by Britton (1990) and Vygotsky (1978). Similarly, Eccles and Midgley (1989) propose in their stage – environment fit theory that adults prefer less structured learning curriculum because they have control over their learning. The findings from the students in this study seem to contradict these articulated assumptions about adult learners. The reason may be that nursing is a practice discipline and students might not have possessed discipline knowledge and life experience in what was being taught. Hence, they felt they needed foundational knowledge and clinical exposure to introduce them to concepts in the discipline before they could effectively solve situations in scenarios.

From the participants in this study, not understanding the CBL process, not knowing what was important from seminar discussions and perceived insufficient feedback contributed to students' sense of turbulence during their transition to CBL, and contradicts some of the common held assumptions about adult learners. A major finding from this study is that the CBL students did not support the notion of commencing their learning with a scenario without initial direction on the subject. The students in Pourshafie and Murray-Harvey's (2013) study expressed a similar opinion that PBL may not be the appropriate instructional format to learn some subjects such as physical education (PE) because all the learners need to acquire the knowledge simultaneously in order to play well. Zhang (2014) suggests that "difficult subjects which require more fundamental knowledge, retrieving, and comprehension should be taught in different formats which include but not limited to didactic lecture, seminar, and case study to ensure mastery of the content knowledge by the students" (p. 4). The students advocating for a mixture of lectures and CBL in their education align with the literature. The domain "throwing someone into an ocean" describes the student challenges encountered when trying a new teaching and learning approach and the confusion they experienced at the initial stage of their learning.

Sink or Swim

Sink or swim is the second domain that emerged from the students' data. The participants used this metaphor to describe the cultural meaning of learning in a CBL program. Students suggested that their failure or success (sink or swim) in the CBL program depended on multiple factors including classmates, tutors, and themselves. The students shared the opinion that learning in CBL is concurrent with the assumption underlying social interdependence theory, which is the foundation for cooperative learning. According to social interdependence theorists,

the following conditions must exist before a group can function as a cooperative learning group: positive interdependence, individual accountability, promotive interaction, social skills, and group processing (Johnson et al., 2006, 2014). Positive interdependence is the core of cooperative learning and embraces the belief that all members of a group are dependent on each other and individual success is unlikely unless others succeed (Johnson et al., 2006; 2014). Hence, students are interested in each other's success. The categories in the "sink or swim" domain include "depending on peers to learn," "conflict in groups," and "experience with CBL tutor." In this domain, the informants' initial experience suggested that they wanted more direction on how to use CBL before learning the content by relying on their peers. This seems to differ from the views of constructivists such as Dewey, Piaget (Kemp, n.d ; Hein, 1996), and Vygotsky (1978) that learners can create their own knowledge by being actively involved in their learning and negotiating meaning with their colleagues (Kemp, n.d ; Hein, 1996). The participants in this study indicated that teaching themselves in the beginning of CBL was difficult because they did not have a foundation in nursing.

I find it hard learning what we needed to teach ourselves because what you do in CBL is to teach yourself. So I did know [that] we didn't have the background at that point of [the] clinical [experience], knowing what direction we should take. So that was difficult to adjust to. Because we all were kind of [thinking], well maybe this is important. (C3a, Nov. 2013, p. 6).

Depending on Peers to Learn

There was a consensus among the CBL students that they relied on their peers to learn the course content. Part of what made this hard for students was that they found it difficult to trust their classmates' research. Students had to build trust in their peers in order for the CBL process to be successful.

There is also an element of trust. You've been trusted to a small group with a number of people you had no prior contact with and you trust each other to come up with the information that you

require to pass the course. That was a little bit of a struggle just getting to know everybody, knowing that you can trust them to do the work. (C2a, Jan. 2014, p. 4)

From my observations in the early CBL seminars, the students would commence their seminar with a "check-in question," such as which holiday they liked best. This warm-up question allowed the students to relax and relate to each other personally as they talked about things outside the course content. Certainly, the students had not completely built trust in their peers at this early stage, but they did know they depended on each other to learn the content. Thus, they were committed to their classmates' success and their personal success as a sign of positive interdependence (Johnson et al., 2006, 2014). Furthermore, at the start of a CBL course, both the students and instructors decided on some ground rules about how they would function in a group and how they would share their research with each other before they came for their seminar. One tutor commented that she reassured her students that she was reading through their research to make sure they had the correct information.

But over time they will get to trust their own judgment, trust the judgment of their peers and if they don't trust the judgment of their peers or if they think that there is something there that is not credible information, [they will] be able to ask the right questions and follow up to ensure that there are no misunderstandings. So I think that is always a big concern for first-year students: how do I know that the information I'm getting is correct. And also letting them know that I'm going through the information to make sure that if there [is] any distortion there, then I'm going to help the group to address that and work through it. (FMf, Feb. 2014, p. 5)

So what was the consequence of students depending on their peers to learn? The student informants realized that their success in a CBL course, especially in the beginning, depended a lot on other students (Johnson et al., 2006, 2014):

Yeah, I can agree with that. The thing with CBL, especially in the beginning, it's like it is [a] sink-or-swim kind of thing. If your other group members don't adjust well to the process then you are kind of in trouble, too, because they are responsible for teaching you the concept. (C2b, Jan. 2014, p. 11)

Another example of that theme is the following comment: "There we go: we succeed as a group and we fail as a group" (C2b, Jan. 2014, p. 11). The students recognised that they were linked

together and if a peer failed, then they all failed (Johnson et al., 2006, 2014). The students indicated that they eventually became responsible for their own learning as well as that of their peers in achieving the course objectives. This fulfills the second condition for cooperative learning: individual and group accountability (Johnson et al., 2006, 2014). For example, students who were invested in their learning would pick out important concepts and present them in their research to their classmates. Furthermore, participants talked about making their presentations interesting and engaging where verbal presentation was mixed with visual aids.

> And because we get our research topics, we go home and we research some and then we can have [a] critical learning activity. Where we can really enhance the learning of our peers is when people take the time to pull out what was important in their topic and use [a] critical learning activity to enhance that, whether it's video or, like, an actual hands-on activity, because then that helps learning in a non-traditional way. . . . and then that is when I think the group process works really very well. (AD2a, Dec. 2013, p. 8)

The participants suggested that in order for them to succeed in the CBL program, they needed to know their peers' preferred learning styles as well as their own. A first-year student explained:

> But something I learned was about the learning styles of my peers. So I found out that I had to know how other people like to learn, so that when I'm presenting I try to accommodate for all the learning styles, which is hard to do. But you try to include videos, diagrams like different things for visual learners and that sort of thing. So yeah, you do learn about yourself but you also learn about other people's preferences. (C1b, Nov. 2013, p. 8)

Although the students became aware that much of their success depended on each other and they worked hard at it, some students felt learning from their classmates was a waste of time.

> But I think the most difficult for me, and still is difficult, is realising that you are paying like a $1,000 for this class and you have to teach each other. It's, like, this person next to me has absolutely no background in this and I have to rely on the research they have done to say that this is correct. So I'm having [a] really hard time and I don't know if it will get easier over the course of the next year. (AD1b, Feb. 2014, p. 6)

From the above quote, it is clear that the student is frustrated about learning from peers, especially when she paid to take the course. However, the reason students learned from peers

was to develop trust in each other, develop responsibility for their own learning, and acquire skills such as teaching, which they will be using in their future nursing practices. Furthermore, students acquire metacognitive learning skills. These skills involve self-monitoring and learning how to learn through dialogue with peers (Johnson et al., 2006, 2014). All these skills encourage students to be strong individuals, self-directed in their learning, and interested in lifelong learning (Johnson et al., 2006, 2014; Pourshafie & Murray-Harvey, 2013). Also, with guidance from tutors, students will learn what they need to know for the course.

The participants did agree that in CBL, they shared content with each other. Students learned that in order to enhance their learning, they had to select the important points from their research and present those points to their peers. Students also studied different preferred learning styles and used interactive methods during their presentations, in order to engage the class. Studying peers' learning styles and using interactive methods are important skills they will need when they teach patients, as they will have to identify important information and decide on a suitable teaching method based on the patient's learning style.

Conflict in Groups

While the students realised that in CBL they depended on their peers to learn the content, they also developed strategies to handle conflicts that arose in group learning. In order for group learning to be successful, students have to learn effective interpersonal skills such as making decisions, trusting peers, becoming leaders, and managing conflict in the same way skills for completing the task in courses are taught (Johnson et al., 2006, 2014). The students said that conflict in CBL groups interrupted their group process and took time away from their learning. Also, group conflict could make their CBL experience a failure or a success (sink or swim). The

students explained that in the beginning of each CBL class they laid out how they wanted things to be done, i.e., "the group norms" (C2a, Jan. 2014, p. 7):

> I think also the idea of just not being, I guess, nervous, at the beginning [that it is important] to really lay out, 'this is how we want things to be done,' so that there is no confusion between people and so that kind of everyone, you are working together, but you do have your own responsibilities within the group. (C2a, Jan. 2014, p. 7)

As part of the team effort, students agreed that accommodating the group's decisions was difficult: "The most difficult will be as a group, coming to a conclusion of what is [the] most important information that we need to do research on" (AD1a, Nov. 2013, p. 9). In spite of the group norms, some students dealt with group conflict by not talking about it because they knew that doing so could create more conflict and they were likely to meet the person again in another seminar. As one student said, "There is no point in, I guess, bringing it up and causing unnecessary argument, especially since [in] CBL there is more chance you [are] going to be paired up with someone of the same group in another cause . . ." (C2a, Jan. 2014, p. 9). Other students tried to be flexible and accept what the group decided on in order to create a good group. The students in this study identified that most often the source of the conflict was giving feedback on peer research or a poorly constructed handout:

> Like, say, if one student told another that their handout wasn't good or that they used the wrong information or that. So that becomes, that's a difficult thing to go through because you want to help that person learn. But you want to — there is a better way at saying things like that, so that can be disrespectful. (C3b, Nov. 2013, p. 6)

This is also an important skill to carry into practice. Nurses need to be able to give each other and patients feedback on their behaviour. The different classes that I sat in were very accommodating with their peers. The students negotiated on everything (topics for research, meeting date to hand in and discuss research). I did not witness a conflict, which is not surprising because when an outsider is observing a group the group members might be on their best

behaviour (Spradley, 1980). The consequence of not resolving a conflict made the CBL experience distressing and tiring, which made the students felt they were "sinking" instead of "swimming":

> We are all tired and stressed. And so that seems like a battle that we are not willing to pick up in that moment. Because we just do what we have to do instead. Research it and do whatever we have to do on our own to get around it rather than be confronted. Because if there is actually a tutor, even in CBL, it would be nice if that is a role they will step up with . . . (AD2a, Dec. 2013, p. 13)

Although CBL students have been reported to effectively address conflict (Williams et al., 2012), the faculty members who participated in this study acknowledged that conflicts in CBL groups are one of the hard issues to address: "One of the most challenging things in [a] tutorial for a tutor is helping the students' group deal with their peers who may not be functioning as an effective team member" (FMp, Sept. 2013, p. 18). Students and faculty members involved in this study quickly identified that conflict on some occasions was unavoidable in CBL groups. They said that sometimes students did not address conflicts in their groups because they expected that their tutors would handle it. Some tutors said that initially they would allow the students deal with the conflict. If the particular student was still not functioning, then the tutor had to intervene. One tutor explained her process of meeting with a student and developing a learning plan.

> So often, I try and let the group deal with it first. I watch as a tutor to see if there is a change in behaviour. If there wasn't change in behaviour, it may be up to the tutor then to have their own meeting with the student and to have a learning plan. If you've got a serious problem, you have to deal with performance problems as a tutor (FMp, Sept. 2013, p. 19)

Experience with CBL Tutor

The transition from a lecture-based to a CBL method was a very significant experience for the students, and their tutors formed an important part of the transition. Therefore, the support they received from their tutors was essential to their success in the program.

I think, um, just like what they've said, that is because it's such a big transition from lecture-based to CBL, initially I think the tutor plays a huge role as a guide. That can also change how we progress. I guess it was really kind of new for me doing it. Her presence was much better. (AD1c, Feb. 2014, p. 5)

The students expressed satisfaction with CBL tutors who laid out their expectations at the first meeting, a role expected of tutors in cooperative learning (Johnson et al., 2006, 2014).

And so I can say without a doubt the first CBL tutor we ever had, she laid down very strict guidelines and expectations for us so that we could learn, and as we move forward in the program those guidelines became a little bit more relaxed but she wanted us to know what CBL was very fast and she did a good job. (C2b, Jan. 2014, p. 3)

Even though the students indicated that they had been able to ask for help from their tutor at the start of CBL and this was essential for a successful transition, some students did not receive such support. "Some of [the tutors] are a lot more removed from the scenarios," is how one of the students described the situation (C2a, Jan. 2014, p. 5). The students indicated that one of their concerns as they progressed in the program was who would be their tutor. A second-year Collaborative student put it this way:

I think I definitely found that in second year my problem wasn't the CBL, but how was your tutor. Now that was what I was focusing on. Because I had in (sic) two times (both my NURS 290, NURS 294) the experience is different so much because of how your tutor was helping you, encouraging you, and, like, being there if you needed something. (C2a, Jan. 2014, p. 5)

The participants said that tutors facilitated CBL differently, and this influenced the students' experiences. Tutors facilitating differently creates distress for students and this is a contribution of the study to literature on CBL. Zhang (2014) writes that every faculty member has his or her facilitating style that cannot be avoided. However, tutors have to be consistent in the information on the course content CBL students learn. The students also reflected that some tutors dominated the CBL process, as noted in this comment:

Yeah, there is good tutors and there is bad tutors and there is a lot of focus on, "oh no you've got so and so," kind of thing. . . . Because yeah, I remember, our tutor last year, and like when she walked into the room it was like the energy just got suck[ed] out with her and it completely

changed the environment and it made CBL a lot more of [a] negative experience. Whereas our first tutor, she was in the room every day and we had fun with her. We laughed, we talked, we had a good time. Whereas with this other tutor it was like it just — I feel like we [were]all kind of like, okay we can't say anything that might step on her toes because our grades were at stake . . . (C2b, Jan. 2014, p. 8)

Underlying the above quote is the belief that the presence of some tutors was intimidating, which reflects a more traditional education system where the teacher controls the learning process (Pourshafie & Murray-Harvey, 2013). Studies that have looked at elementary students' transition into junior high school report that there is reduction in the support that teachers give to junior high school students compared to the significant support that these same students received from their teachers in elementary school (Eccles, 2004). A major finding of this current study is that CBL tutors facilitate differently.

From the faculty focus groups, tutors identified that some of their colleagues rejected the role of the "guide on the side" because they could not let go of the "sage on the stage" concept (Pourshafie & Murray-Harvey, 2013).

I think that probably is our biggest challenge. . . And but on the other side of that is that I have heard students say they have had tutors that they just sat outside the group and [did] nothing and that really is not the way CBL is supposed to work. And I think that you have to be really quite actively involved. . . . Um, but that sort of "sage on stage," [it] is hard to let it go. (FMc, Feb. 2014, p. 6)

Pourshafie and Murray-Harvey (2013) explain that a good approach for a CBL tutor is to be a "guide on the side," where the tutor begins the discussion of the topic and provides a learning context where learners are at liberty to select and continue with their learning objectives. The opinions of the students and tutors in this study provided a basis for acknowledging that in CBL there could be tutors who were not actively involved. Furthermore, Rather (1994) reports that there might be power issues between students and tutors where the presence of the tutor could be interpreted as oppressive if the students' prior experiences are not recognised.

A key finding from this current study was that the students recognised that tutors facilitated CBL differently. The students shared that their enjoyment of and success in their CBL classes depended greatly on their tutors. It is not surprising to observe in some CBL seminar classes that the students interacted cordially with their tutors and there was no tension. This was the case in the third-year class, while in other classes the students were quiet, especially in the initial years. My impression was that with the senior groups, the students had become familiar with their tutors; hence, they had more discussions and there was little apparent difference in the power structure. The classroom had become a community where everyone knew one another and accepted that a permanent relationship had been created (Johnson et al., 2014).

According to the participants, the sink-or-swim domain involves students' perceptions about how the CBL experience can be a success or a failure. The students agreed that learning in CBL was a team effort and if one member was not doing well, the whole team was affected. Also, students identified that conflict did occur in their groups and they tried to avoid it by not talking about it but by working around the source of the conflict (usually a group member). Students also indicated that they initially needed an authority person such as a tutor to help resolve issues like conflict in groups. Furthermore, the students confirmed that the tutor played a key role in their success in a CBL program by offering help when they needed it and confirming that they were doing the right thing.

Turning Point

"The turning point" is the term the researcher used to describe the third domain related to the students' cultural knowledge about the transition to CBL. The turning point was associated with an individual student making a decision to remain and succeed in the CBL program. One category, "figuring out how to do CBL," emerged in the domain "turning point." The students

explained that the turning point occurred in the first few weeks when they realised they did not have a choice.

> You are forced to actually learn what it is. I found that was the biggest source of information because you have no choice. You have to do it if you're going to make it past the first few weeks in the program. (C3a, Nov. 2013, p. 2)

Being able to make the decision to stay in the program (or to leave?) was extremely important: many of the students found that when they chose to make the best of their situation, their experience improved. As one student explained, "Making the decision to make the best of the situation [was something] I needed. As soon as I made that decision, then everything else fell into place." (C3b, Nov. 2013, pg4). Some students did not understand the CBL process until after their first exams "I agree that I think the first exam was really eye opening. There was a lot of, oh that's what we were supposed to do" (AD2a, Dec. 2013, p. 4). Because of changes in the 21st century health care system such as onset of new diseases and technology, students, tutors, and educational institutions have had to change to a new paradigm of instruction that focuses on developing students' competencies, such as flexibility to cope with the dynamic nature of society (Johnson et al., 2006, 2014). With perseverance in collaborative learning approach, a passion to accomplish a specific goal, learners in group settings are motivated to put more effort into their studies (Johnson et al., 2006, 2014).

In order to succeed in CBL, students need to make a conscious decision to want to study in the program. The student informants said they followed through with their decision by being organised and timely, and sharing quality information with classmates.

Figuring out how to do CBL

Even though the students had decided to study in a CBL environment, much of the learning in the first few weeks of first year was trial and error as everyone figured out how to function in the system and write exams.

I think it took the second half of first semester to actually understand what CBL was. The first six weeks of CBL, to be honest, I don't think people understood it. I think it was trial and error the first six weeks. Then we had NURS 194. (C2a, Jan. 2014, p. 3)

Through trial and error and practice, informants became competent in CBL. Practicing CBL was the main strategy that students used to understand the process.

Um, probably the most useful thing in terms of, like, figuring out how to do it was just doing it. Like it kind of just like throw (sic) us into a classroom. I don't remember if our tutor, I don't remember if she actually explained what we were supposed to do there. (C2b, Jan. 2014, p. 3) .

Another student from C2b's group said that indeed, the tutor did explain what the students were supposed to have done. Based on my own observations in tutorials, during the first and second years, students asked questions that were theory-related and used trigger questions in their course pack to guide their brainstorming. However, second- and third-year Collaborative and second-year after-degree students asked questions about what a nurse should know in order to care for the person in the scenario, and they wrote the summary of their presentation in point form on the board. The students in second and third years had spent more years in CBL and could focus their learning on what a nurse would do to care for the person in the scenario. Beginning with the second-year Collaborative students, the tutors were primarily affirming the students' learning. They intervened to fill in gaps and link concepts (Johnson et al., 2006, 2014). The tutors assessed individual contributions to the group in order to promote self-monitoring (Johnson et al., 2006, 2014), a skill needed for continuous learning in professional practice. The students had moved from surface learning to deep learning (Albanese, 2007) and through

practice, writing on the board, answering questions, group discussion and critiquing each other's presentation, they were elaborating on their learning (Albanese, 2007) and becoming competent in learning in a CBL environment.

By the end of the second year of CBL, the students had begun to wean themselves from their tutors and accepted that the tutor is a facilitator and not a source of all knowledge (Pourshafe and Murray-Harvey, 2013). This is the expected shift in attitude from both learners and tutors in a PBL pedagogy, and is needed in order to develop self-direction in learning (Pourshafe and Murray-Harvey, 2013). Third-year Collaborative students and second-year After Degree students demonstrated the greatest level of independence from tutors. One third-year focus group member commented:

> It wasn't very difficult to adjust to having your tutor be a support instead of the leader in the group. Like having your tutor not being the one giving you the information. It was weird at first because we kind of all looked at her and expected her to tell us everything. And she kind of sits back and just directs us. Which was, you know, it's pretty interesting and didn't take long to get used to that either. (C3a, Nov. 2013, p. 5)

When the students who participated in this research settled on learning in CBL, they used trial and error in their first few weeks of the program and then began the process of becoming independent of their tutors. Students shared that the best way of understanding how to do CBL was to continue practicing it. The domain "turning point" is a decision stage at which students consciously make individual decisions to learn in the CBL program. Participants confirmed that after making the decision, they recognised the advantages of studying in the program.

Just Doing It

Findings from studies on the student transition from traditional curricula to new curricula such as PBL and CBL often reflect participants' anxiety (Biley, 1999; Kaufman & Holmes, 1996; Smith & Coleman, 2008). On the other hand, CBL/PBL students report valuing their

learning, integrating their theory to practice, remembering more than 50% of what they have learned, having confidence in their knowledge, and having greater interpersonal skills (Lohse & Shafer , 2007; Schmidt et al.'s , 2009 ; Spalding & Killett, 2010; Williams et al., 2012). Furthermore, studies of students in cooperative learning groups have reported that these students have increased academic achievement in areas such as knowledge acquisition and recall, problem-solving, the ability to transfer knowledge from one context to another, and intrinsic motivation. They have greater psychological health (higher self-esteem), the ability to endure hardship in spite of challenges in finishing work, and have better and more positive relationships with peers in areas including caring and social support (Johnson et al., 2006,2014). Students in this study progressed from being anxious to not being stressed about their CBL programs. The students shared some benefits of CBL with me and their peers. What activities did the students engage in, in order to successfully transition into the CBL program? The categories that emerged under the domain "just doing it" are becoming "comfortable with each other," "knowing how to do CBL," "creating time to practice," and "linking tutorial, lab, and clinical".

Becoming Comfortable With Each Other

Apart from being familiar with the CBL process, what made students' transition successful in the CBL program was when they began to have conversations with each other. The students said that they started to enjoy CBL when they became comfortable with each other:

> I think the big thing with our group is just getting comfortable with ourselves and everyone felt more confident and taking part, I think, once they kind of got to know each other. And I think it's a lot easier now. It's not scary anymore or anything like that. I quite enjoy going to seminars now. (C1b, Nov. 2013, p. 6)

As students became comfortable with themselves and each other, they developed a safe learning environment where they were free to ask questions and did not feel they would be laughed at. For example, third-year students demonstrated this level of comfort by developing a safe

learning environment: “Hmm, I just feel in CBL you realise that you don’t know everything and that everyone around you does not know everything either. So I think that helps with confidence a lot” (C3a, Nov. 2013, p. 10). The students who had attained this level of comfort served as academic and personal support for each other as they learned and fulfilled the third element for group learning (Johnson et al., 2006, 2014). During the researcher’s observation, third-year Collaborative and second-year After Degree students had a very safe environment in their seminar groups where they interacted freely with their tutors and discussed issues that arose from their presentations. For example, in the second-year After Degree class, there was a role-play on disaster management. The tutor, students, and the researcher were all involved in the role-play. A topic from the scenario was written on paper cards. A card was placed on the forehead of everyone in the class. When it was a person’s turn, the person used a prompt such as, “is it a name of a place, a person or an event?” When the person with the card guessed what word or phrase was written on her card, the class answered “yes.” Participation in this role-play made everyone vulnerable, but at the same time the classroom became a community of learners because members laughed and learned together. There was a change in the mindset of both the students and tutor, with both groups realizing that in CBL the tutor is not a source of all knowledge, but a co-learner (Pourshafie & Murray-Harvey, 2013). Everyone was involved in the learning. The environment was a community of learners (Pourshafie & Murray-Harvey, 2013) because we all helped and supported each other to make a correct guess. It was not possible to see what was on one’s forehead without assistance from other members of the class. Hence, through that we created a safe learning environment. The role play summarised important points in the scenario, tested the class understanding and recall of the information, and developed students’ self-directed learning, a skill they will need in their future practice.

By the second year in CBL, students had become comfortable with their peers through learning with peers and having been in several different seminar groups. But some students, who were not supportive of CBL even though they had become comfortable with their colleagues, did not change their views about CBL, as indicated by the following student comment:

Yeah, I will say it becomes easier as you are more familiar with it. Um, which I think is like everything new, like after you have had some experience in it. If it's like my favourite way to learn I'm not sure. (AD1c, Feb. 2014, p. 6)

Having to change their group every six weeks and learning to be comfortable with their peers is another essential skill that students need for their practice, because they will be working in teams and meeting different people, which is what they can expect when they become RNs.

Knowing How to Do CBL

Developing strategies to learn in the CBL program was crucial because of the volume of material that students received from their peers and the self-direction in their learning. Students indicated that focusing on the objectives was an activity within their comfort zone "and like P2 said, focusing on the objectives. Because that's kind like our comfort zone" (C1a, Nov. 2013, p. 10). Some students also skimmed the material initially to prepare for the class and lab.

And with the lab what I find is that, I skim more of the lab basically to prepare myself to do the pre-lab to get the information there. And to be able to participate in the lab I just skim to know what I have to do. (C1a, Nov. 2013, p. 10)

Another common strategy students used was going back to the textbook. At the beginning of each course, the tutors informed students that their exams would be from the recommended textbooks. As a result, all the students in the various focus groups shared that they went back to the recommended textbook:

Like most of the things we do in the handout are like points. We don't really elaborate on them. So like I found out that I still have to go back to the textbook and read them over again for myself. [It] is like someone just did it. You don't even know if the person was in the right mind when she was doing it. So instead of just taking the whole thing into your head, I still go back to the textbook, which is like a lot of stress (C1a, Nov. 2013, p. 7).

Another reason the students relied mostly on their textbooks in first year was because they did not trust their colleague's research. Many of the students indicated that in first year they did not read their peers' handouts because they did not trust what their classmates had written.

> I think this is the first term I have actually used seminar notes to study for an exam. Because this is the first term I have really trusted what everyone put in. Before I have been like, that was nice, I'm going to do it myself. Because I don't, didn't have that trust in the group. This term is different because I think this group has been highly productive and highly accountable for what they've done. (AD2a, Dec. 2013, p. 7)

Contrary to popular opinion that adults prefer a less-structured learning approach (Freire, 2000; Eccles & Midgley, 1989), the strategies used by these students show that they were more comfortable with a structured learning approach. Some students struggle with using CBL to learn core nursing information. For example, the After Degree students showed a major difference in that they preferred to learn the core concepts of each course from lectures.

Hence, this study confirms Pourshafie's and Murray-Harvey's (2013) research that students who are being prepared to be teachers are not comfortable using PBL in school environments. Pourshafie and Murray-Harvey found that students were reluctant to use PBL because they had spent so long using teacher-centered instructional methods.

Students knew how to do CBL well because they could research information for themselves and they used the course objectives to guide their learning. In order to save time, the students skimmed through materials such as lab manuals. A major finding from this study is that students struggle with the idea of using CBL to learn core nursing information.

Creating Time to Practice

To adjust to CBL, students needed more time to study. In order to glean important information from their readings and scenarios, and be able to share that with classmates, the students discovered that they had to invest additional time in their learning. A student described

the experience as follows: “I found out that if you don’t make the extra effort [you won’t learn]. It’s like you make the extra effort to dig out the gold from underneath the ground” (AD1b, Feb. 2014, p. 4). First-year Collaborative students expressed the most concern about needing more time to practice their clinical skills, and shared that they were very frightened of going to clinical

> I think CBL learning for tutorial, um, is better now but . . . I’m so scared to go to clinical. Just because when you are doing clinical, like, the teacher, she is there more and gives more feedback than [at the] tutorial. But she is still not there, like, oh you are doing this wrong. So it [is] just like when you are a nurse you are going through a clinical and you have to document stuff. Like, I still don’t fully understand like, you know what I mean, like, what you exactly are looking for, and if you document it wrong then you don’t want, like, to get into trouble right and so. (C1b, Nov. 2013, p. 12)

Second-year students were very concerned about fitting into clinical practice, although some had less anxiety than first-year students. They worried about getting used to a new unit, where to find equipment, and how to “fit in.”

> I feel like especially when you are in school when you go into clinical. . . . Because you [go] into lab and they teach you, but then, like, I went on the unit and you go in the storage room and you don’t know where anything is and you are just searching and freaking out about that because your patient is waiting for what not. So you are more focus[ed] on, like, I’m trying to figure out where I am, what I am, what my role is and how do I fit in, I guess in helping the nurses, but not being in the way of being a nuisance, because that’s like a major worry. (C2a, Jan. 2014, p. 12)

A new finding from this study is the students’ transition to clinical setting from being scared in the first year to trying to find a balance in the second year. Then, by the third year, students said that they were comfortable going to the clinical setting. Much of the research on students’ transition to clinical practice focused on newly graduated students moving into the clinical setting, where their transition experience ranged from being anxious to being comfortable (Schoessler & Waldo, 2006; Teunissen & Westerman, 2011). However, there is little research on how undergraduate students who have not yet completed their program experience their transition into the clinical setting in terms of the anxiety associated with each year of the nursing program.

Only through having time to practice CBL, reading through the materials, and practicing clinical skills did the students feel less anxious in the CBL program. To this end, the students considered that they had transitioned when they felt they understood the course content, enjoyed CBL, and were comfortable in the clinical setting.

Linking Tutorial, Lab, and Clinical

The students said that another factor that helped them adjust to CBL was the integration they experienced among the tutorial, lab, and clinical components as they went through the program. Students who indicated that there was a link between these components also emphasised that the relationship at times depended on what they were learning and where they were assigned for a clinical placement.

> I think that lab is helping me way more in clinical than tutorial is. Um, even within lab although we are learning skills, the readings and the information that is needed before you go into the lab prepares you (prepares me) more in the clinical setting than anything I believe that I have learnt in seminar. But that being said, there is always information in the back of your mind from different classes. So I'm not going to say that seminar hasn't prepared me for anything. . . (AD1b, Feb. 2014, p. 7)

Johnson et al. (2006) report that one means of encouraging integration in a college's curriculum is through faculty members jointly planning, designing, and assessing subjects in teaching teams. However, some participants in this study expressed a less positive opinion about the integration of the various program components. These students felt there was no link between the components.

In summary, students felt more comfortable in the CBL program when they began to identify the link between the curriculum components. Based on the researcher's observation in seminars, third-year students were very relaxed, loved CBL, and knew what to include in their handouts and seminar discussions because they had been to clinical setting "I'm not scared

anymore. I mean definitely you've gotten better at it. And so you get a lot more out of the discussion now than you did in first year" (C3a, Nov. 2013, p. 3).

Valuing

PBL is well supported as a philosophy of teaching and learning because of the associated advantages. Some of the perceived advantages of PBL are that students are actively engaged in their learning, able to apply theory in clinical practice, integrating their knowledge and enjoying their education, developing clinical reasoning skills (Alan, 2009; Barrows, 1996) and able to easily transfer knowledge from one context to another (Johnson et al., 2006, 2014). The students in this study recognized the benefits of CBL, which reflect the findings from the literature. Beyond providing students with the stated benefits that they might not have in traditional approaches to education, one of the main advantages of CBL is that it offers a different and in many ways more realistic perspective of patient care.

I think it helps you to see the bigger picture for treating a patient because in lecture you don't necessarily go over the whole thing. It's more, what do you do there is a problem right now; how are you going to fix it. But when we talked about it in seminar it more goes the whole way from what caused the problem, how can you tell there is a problem, what do you do about the problem and then how are you going to prevent it from happening again in the future. (AD1c, Feb. 2014, p. 12)

Four categories emerged under the domain "valuing": "we know a lot," "developed critical thinking," "working in a group," and "being able to teach."

Knowing a Lot

The students mentioned that they knew a lot as a result of the CBL teaching method. A third-year Collaborative student was especially enthusiastic. "After three years I will recommend to anybody who wants to be in a nursing program to have it delivered in this manner, because there are a lot of positive things about it"(C3b, Nov. 2013, p. 3). The students suggested that they

had learned a lot through using varying credible websites, peer-reviewed journals, and resources other than their textbooks

In the lecture type of environment you will only do your textbook, you will only do the material given to you and while we still crave that component in CBL I think looking down the line, like, we know a lot. We know a ton of websites, we know all kinds of acts and regulations about support groups, for any condition and disease you can think about. We know about housing and aging and all kinds of other resources. . . . And so in terms of nursing in the future, integrating into, like, practice or something like that, it will be that resource and skill sets that was (sic) encouraged in CBL. (AD2a, Dec. 2013, p. 15)

Recognizing that the skills they acquired from their research in CBL would be applicable in their future practice (Alavi et al., 1997; Rowan et al., 2009) was a motivating factor for the students to continue to study in the program. Students in all three years of the program felt they knew how to find credible information (Rowan et al., 2009), which aligns with studies that looked at PBL students.

Developing Critical Thinking

Critical thinking is essential to a practicing nurse. Research with CBL/PBL students has shown that students increased their critical thinking and clinical reasoning skills (Alavi et al., 1997; Rowan et al., 2009; Williams et al., 2012). The students in this study were no exception and they indicated that the CBL process had helped them to think through situations.

I feel like that applies in clinical as well. And as a nurse in general because you are then in a situation and you are like, okay, this could happen. And I could do this, this, and this, and this could happen because of this. So I just feel like it increases my ability to think through situations and stuff like that. (C3a, Nov. 2013, p. 11)

Apart from being able to think through situations, participants said they were able to remember what they learned and anticipate what would happen. From brainstorming with peers and using critical thinking questions in their presentation, students voiced that they could think through clinical situations and prioritize their patients' care. In a presentation on nursing theory in one of the second-year seminar groups, the student presenting wrote some aspects of the theory on pieces of paper. She asked each of her peers to pick a piece of paper and say which

stage of the theory was being described and explain how it could be used in a clinical setting. The exercise helped the students to apply the nursing theory to practice, which is a major goal of professional education and will help the students develop the skills they will use in their future roles (Pourshafie & Murray-Harvey, 2013; Solomon & Crowe, 2001).

Working in a Group

CBL involves learning in groups. The students in this study indicated that CBL graduates would be more comfortable working in a group setting than their colleagues from a traditional program would. "I think if you compare the students in the CBL program and one that was just [a] traditional program, it will be far better for the students in [the] CBL program to transition into a team environment" (C3b, Nov. 2013, p. 3). Among the skills that students acquire from CBL are leadership skills *(*Alavi et al., 1997; Williams et al., 2012*)*. Participants agreed that they had developed their leadership skills, which would benefit them when working in teams during their practice as nurses: "Active leadership being, you know, running the group, telling the people what to do or leading the conversation. Passive leadership roles are things more like being a good listener, making the group stronger" (C2b, Jan. 2014, p. 14). In each CBL course, the researcher observed that every student had the opportunity to be a team leader and be involved in peer evaluation. As a team leader, the student gave an evaluation to each classmate. The peer evaluation was either verbal or written and included one positive comment and one area in which the leader was encouraging the peer to improve. Providing feedback to peers on their contributions to the group learning that was beneficial to the team and advising on behaviours each person should modify accomplishes the fifth condition for group learning, review the group process (Johnson et al., 2006, 2014). Another skill that was beneficial for working in a CBL group was dealing with problems constructively and "getting along" with colleagues.

. . . in the real world we all have to work as a group, we have to work as a team, we have to collaborate and we have to collaborate with all kinds of people. And I think that's one of the big things I know it helps me with, is you if you have a problem in the group you have to deal with it constructively. You can't just, you know, let it go kind of thing. Like in high school if you didn't like a certain person that you just wouldn't talk to them but in the real world that's not the thing. You can't do that anymore. . . (C2b, Jan. 2014, p. 14)

CBL students felt competent handling issues related to learning within a group. Students had acquired conflict management and leadership skills and as a result they expressed confidence in being able to work in a team when they moved into the practice setting (Johnson et al., 2006, 2014).

Being Able to Teach

Some of the evidence supporting CBL/PBL involves student improvement in communication (Schmidt et al., 2009) and teaching skills. The students in this study explained that their communication skills had improved after they had been in the CBL program. Individuals who were shy at the beginning of CBL were not shy anymore, and liked sharing what they learned with other people.

When you came in first year, we want to sit and not speak. We didn't want to be heard. And now it [is] kind of, I like sharing what I have learnt with other people, and I like teaching other people and I like having them teach me, too. You [have] gotten a lot not shy. (C3a, Nov. 2013, p. 10).

The faculty members interviewed affirmed that students mature in the CBL program. Part of the growth tutors observed in students was their ability to speak up after going through CBL (Pourshafie & Murray-Harvey, 2013).

My experience has been [with] both males and females. This year I had a group with four men and they were all very, very quiet introverted men and they all talked about their growing and learning. They were so anxious to speak up in front of the group and by the end of December. the growth from January to December, I mean they were talking about it themselves. It was quite amazing. (FMc, Feb. 2014, p. 10)

I observed that the tutorial process involved different skills that prepared the students to teach. The students learned to deliberate on ideas while brainstorming and discussing their

research. They tried to help the class understand and apply material from their presentations, especially in the senior class, by explaining and using different teaching aids. They also provided each other with peer evaluations. All of these are teaching skills that they will use in their future careers. Through the CBL process, students built their confidence because they had to teach their peers. Students confirmed that in CBL they were taught how to teach. Teaching peers had made students confident to teach patients.

> Because the CBL is a group process, it will make it easier to talk to a patient or to talk to families and to be comfortable and confident in the theory that you know, and be able to explain it to somebody that is not so familiar with things in the hospital setting. Because we are taught that, we are taught how to teach. (C3b, Nov. 2013, p. 9).

In fact, the third requirement in active learning is for learners to individually interact with the group through teaching peers the knowledge acquired (Johnson et al., 2006, 2014). Seneca, a thinker and supporter of cooperative learning, was cited in Johnson et al. (2014), stating that "when you teach, you learn twice" (p.104).

After going through the CBL program, participants became familiar with teaching, and learned teaching skills they could use to enhance their peers' learning. Students felt that the skills they had acquired in the CBL seminar contributed to their confidence to teach patients and their families, using a vocabulary that health care consumers would understand.

To summarize, the students involved in this study shared that their transition to a CBL program involved an initial period of finding it difficult to understand the process, select what was important to study, and adjust to peers. This confirms findings from other studies on PBL/CBL (Biley, 1999; Smith & Coleman, 2008). A key finding of the current research is that both Collaborative and After Degree students wanted direction on what they were learning. Another important finding is that the differences among CBL groups and tutors were a major concern to the participants, a phenomenon which has not been reported in the literature. It was

certainly the case that the students in this present study shared that they needed to make a decision to succeed in the program. Once they decided to accept the CBL program, some students began to understand it while others had to experience the process for a while before comprehending it. Participants shared that they began to identify the benefits of CBL after becoming involved in the program. Another important finding involves the students' in-depth description of the different strategies they adopted to learn in order to do well in the CBL program. The students discovered that succeeding in CBL was influenced by both group and individual efforts (Johnson et al., 2006, 2014). This research outcome, about CBL students' not being comfortable learning core nursing information using CBL, confirms other research about using PBL as the main instructional method when students do not have firm background knowledge (Biley, 1999; Pourshafie & Murray-Harvey, 2013; Smith & Coleman, 2008). Having pointed out the key findings from this study, it is essential to note that the participants identified many benefits of CBL, such as being able to find credible information, not being afraid to talk, being able to teach, developing critical thinking skills, and being able to work in a team setting. All are skills the students would need in their future roles as nurses and for their lifelong learning, which all support studies reported in the literature.

Faculty

This section involves a description of the findings from the faculty data. Four interrelated domains were identified in the faculty data: "an adaptation, trusting the CBL process, a maturing process for students, and controversies about CBL." "An adaptation" describes faculty members' adjustment to CBL; "trusting the CBL process" represents tutors' own growth in relation to the CBL process; "a maturing process for students" describes tutors' observation of

the students' growth in CBL and identified advantages of the program; and lastly, "controversies about CBL" represents some of the perceptions tutors had about CBL

The tutors' description of their transition to CBL reflects findings from the literature that suggest that some faculty members were satisfied with their transition from traditional curriculum to PBL (Grkovic, 2005; Kaufman & Holmes, 1996) while others resisted the transition (Allen & White, 2001; Hitchcock & Mylona, 2000). The majority of the tutors in this study were satisfied with their transition but a small number were frustrated. With this in mind, a detailed description of the domains will be provided.

An Adaptation

Intense preparation of faculty members before changing from traditional methods to new education methods is essential for success during transition (Hitchcock & Mylona, 2000; Rideout, 2000). Most important is the support the educational institution provides to faculty members (Grkovic, 2005). The majority of tutors in this study described their transition to CBL as an adjustment. With preparation and support, many of the tutors indicated that some principles of learning and guiding CBL were similar to those guiding traditional approaches, so the change was really an adaptation. For example, all tutors interviewed had teaching experience using lectures and small group discussions in clinical settings. Some had been exposed to PBL or inquiry-based learning. One participant indicated that the basic principles of teaching were the same, even though CBL was new "and so no I hadn't. I hadn't any experience with CBL outside of, I mean, some basic principles are similar and working in clinical with students in small groups. But the CBL approach and the stages that are typical of CBL were new to me" (FMp, Sept. 2013, p. 4). Another participant had worked with students in a clinical setting as an educator. That participant was already "familiar with the principles of adult learning, Bloom's

theory [of] taxonomy, etcetera. and all the particular academic references that we use. So you simply went from one method to another and adapted" (FMd, Feb. 2014, p. 2).

Hitchcock and Mylona (2000) recommend that one of the initial steps in preparing faculty for transition to PBL is helping them understand the rational for PBL. From the faculty members' experience in this study, those who supported CBL identified that there were some similar principles of learning between CBL and more didactic methods which they could draw on. One category, "well supported," emerged in the domain "an adaptation."

Well Supported

Participants acknowledged that CBL reflected some basic principles that are commonly associated with traditional methods, which helped with their understanding of the CBL method. The participants said they were well supported when the faculty started CBL. Many of the participants were part of the team that visited McMaster University when the Faculty initiated CBL in 1997.

> . . . And certainly when we were first introduced to CBL ourselves or PBL I went through a week-long workshop at McMaster University where their teaching principle was, you do it. So you have to be the facilitator or you have to be the evaluator. It was a very hands-on kind of orientation. So you have a group of semi students' type of thing and so you have to facilitate, right. (FMe, Feb. 2014, p. 6)

Another participant added that an Associate Dean of Teaching provided support "that we were able to start with. We were actually quite well supported and we had really small groups" (FMc, Feb. 2014, p. 3). Part of the preparation for the transition was providing tutors with adequate information about CBL and an opportunity to observe a demonstration of the tutorial process by an experienced tutor or a group of experienced students (Hitchcock & Mylona, 2000). Johnson et al. (2006, 2014) recommend cooperative teaching teams to be formed in active learning programs with the following goals: providing constant meetings to share success and challenges with implementing the new teaching method; jointly planning, designing and

assessing teaching methods; and collaborating among tutors to jointly teach lessons in order to advance through the difficulty at the beginning stage of implementation of the program. I noticed that the tutors were very helpful and willing to let new people such as graduate students interested in CBL observe their tutorials. The researcher personally had lots of support from all the tutors who allowed me to observe them and their tutorials. The tutors shared tutorial skills, their students' research, and copies of the scenario they were discussing.

While practicing CBL was mentioned as the most effective method of learning how to facilitate tutorials, faculty members also indicated that the conversations they had with their peers, teaching teams, course leads, and the tutorial consultant were very helpful in their adaptation to CBL. These constant conversations provide support during the implementation (Johnson et al., 2006).

> As far as actually doing, being a tutor in [the] CBL course, I had to figure it out. The conversations with my course lead were the most helpful in terms of figuring out how it works and what I was supposed to do. And also as time passes you do it and you learn from doing it. (FMa, Nov. 2013, p. 5)

Tutors continued to modify their tutorial skills through regular meetings with year coordinators and each other (Hitchcock & Mylona, 2000; Johnson et al., 2006). On some occasions, tutors discussed issues they encountered in seminar and received assistance from the Tutorial Consultant on how to resolve these issues:

> The Tutorial Consultant was (consultant name) and you could go to her and sit down and talk about the issues you had in your group and you could talk about ways of, like, I had problems with peer evals too and talk about how to develop that better and just after your reflection finding out little ideas of what to do and change. (FMc, Feb. 2014, p. 11)

Faculty members had ongoing workshops (Grkovic, 2005; Hitchcock & Mylona, 2000). The faculty organised a Research Day with most of the topics focused on CBL. A participant suggested that "these faculty development days have been organised around a number of topics but as you can imagine CBL is a major one because it is the major approach for our education of

students" (FMb, Jan. 2014, p. 6). In addition, tutors delved into the literature, and were part of an action research project about their CBL experiences. The outcome of the project was subsequently published.

> Early on in the implementation of our CBL at the FON, we had an Associate Dean of Teaching who decided, because this was new, we were going to do what is called the live research or — I [have] forgotten that term — live or active research or whatever . . . . Well, the majority of us, because we were all doing it for the first time, agreed to participate. And we kind of had lunch time, [when] we agreed on a day of the week or every other week where we met and we kind of talk about how things were going. . . . It was really gratifying because it added security that no matter what course you were teaching some of your colleagues were running into the same type of thing. . . . And at the end of the year, we decided it was time to write an article. And so we worked on putting together some posters and a paper coming out of the research project. . . (FMe, Feb. 2014, p. 8)

As evidence of the intensity with which tutors supported CBL, many of the participants indicated that individually they read literature on PBL and what had been done in other places using PBL. Some faculty members focused their master's theses on CBL.

> And it was very helpful to have the background from the literature to be able to see how PBL, CBL is used in another faculty. So that helped make it more meaningful to me. And I also had the opportunity to review literature while I was working on my master's thesis which also delved into CBL and it was a comparison between groups of students in a CBL curriculum and students in a more traditional program. (FMf, Feb. 2014, p. 2)

In summary, the domain, "an adaptation," involves tutors' experiences in switching from traditional methods of teaching to CBL. Tutors indicated that the change was an adaptation. Tutors did not perceive that their switching to CBL was a big transition because the principles guiding teaching were similar and they already had experience with one form of small group teaching in the clinical area. Furthermore, the tutors felt well supported, especially during the change.

Trusting the CBL Process

The second domain on tutors' cultural knowledge about transition to CBL is "trusting the CBL process." The categories under this domain are "challenges with facilitating CBL seminar"

and "covering the content." The tutors' stories provided evidence that in a student-centered curriculum, one of the main concerns of tutors was ensuring that students cover the content of the course (Lekalakala-Mokgele, 2010). In fact, tutors in this study shared that they were concerned about their students "covering the content" they were expected to learn after going through the steps of CBL:

> There is always a concern with and this is in the literature, too, that a group covering or dealing with the scenario, they will discuss certain aspects of a scenario but they may ignore other aspects and not realise what they have missed. For example, in studying schizophrenia they may study the medications and the legalities and the experience of hospitalization and all those things. But they may not talk about what is the best way to communicate with the client . . . . The students don't often generalize. They stay very much to what they've been assigned. . . . but it's the leap of faith. [What] I mean is that I have to trust that when they have gone through all the steps of CBL that they have covered what they need to know for that. So I need to have faith or trust the CBL process that it will do what it was supposed to (FMb, Jan. 2014, p. 8).

Tutors had to develop some trust in the CBL process which resulted in their description of the CBL process as a "leap of faith." Because of tutors' concerns about students covering the content, they sometimes found it hard to remain quiet during student discussions (Hitchcock & Mylona, 2000; Pourshafie & Murray-Harvey, 2013; Solomon & Crowe, 2001). In fact, tutors said that often they had to refrain from interrupting the process in order to mentally follow the students' discussion and identify areas that had not been covered.

> And sometimes I have to sit back and let them discuss something while I bite my tongue and let that process happen knowing that it will probably resolve itself. But sometimes I need to let it go for a while so I can diagnose what is happening. So it is certainly very different. It is, I can see that it is students-centered and it does give them skills that they don't get in a lecture format. (FMb, Jan. 2014, p. 7)

A difficult but a key skill in CBL is the tutors' ability to hold back, because it creates opportunities for students to reason independently and promotes the self-directed learning (Pourshafie & Murray-Harvey, 2013) that students will need in their future role as nurses. There were certain occasions when tutors were unable to remain quiet. One of the tutors the researcher observed could not continue to restrain herself during the students' presentation when the class

discussion was very disjointed (Solomon & Crowe, 2001) and some essential information was omitted. The tutor contributed to address important points that the students should know and facilitated problem-solving when students were unable to answer peer questions. The tutor stepped in and said, "I will walk you through that."

Although some tutors believed that they should remain silent to allow the CBL process to unfold, the majority of the tutors accepted that CBL is rooted in the philosophy of being able to ask appropriate questions that will challenge student learning, questions such as "what do I need to know and then how I'm I going to find out" (FMp, Sept., 2013 p. 14). Students are expected to ask themselves and their peers questions to handle any similar clinical situations they encounter. Some PBL theorists believe that students can solve situations with little knowledge in basic sciences (Hitchcock & Mylona, 2000). For example, a faculty member shared that:

> The students have some of that basic information. So if you always adopt the kind of CBL matrix of what do I already know about this, what don't I know, what do I need to look up, they can manage any situation in the clinical area through that kind of approach. (FMp, Sept., 2013, p. 14)

Adopting the CBL philosophy enables students to analyze information, think critically (Pourshafie & Murray-Harvey, 2013), and deal with any clinical situation they encounter. However, the students did not always support this view and thus wanted to have more direction and basic knowledge in nursing before using CBL. In theory, the expectation is that over time, the students will become independent in their learning and develop into self-directed learners (Pourshafie & Murray-Harvey, 2013).

> . . . That's the whole goal is that they don't rely on you, that they over time begin to establish that ability themselves to question each other and think deeper. Because it's only for their benefit. I mean they want to be, hopefully they want to be the best nurse they can be. (FMp, Sept. 2013, p. 18)

Not surprisingly, third-year Collaborative and second-year After Degree students were more independent of their tutors and welcomed the notion of their instructors being co-learners with

them (Lekalakala-Mokgele, 2010). Thus, the students did not expect the tutors to give them the information but rather to collaborate in the learning process (Pourshafie & Murray-Harvey, 2013).

Faculty members still struggled with the idea that their students would learn the content without directly receiving the information during CBL. But in order to follow the CBL philosophy, faculty members had to balance keeping quiet and intervening as tutors to clarify students' learning; they had to assist students to be self-directed in their studies, a skill the students will use in future practice.

Challenges with Facilitating CBL Seminar

Having trust in the CBL process was difficult for CBL tutors initially, but what was even more challenging was knowing when to intervene and ask deeper questions to probe students' understanding. Tutors suggested that one of the major difficulties was knowing when to interject during a student discussion and ask an open-ended question.

> That's where that questioning that I think P3 mentioned: [it] is knowing when to step in and ask those open-ended questions that will take them deeper and point that out. How do you do it, how do you engage and make them interested and how you go deeper. I think that's a challenge that I struggle with constantly and these days I go home thinking you know, did I ask a good question or I didn't. . . (FMc, Feb. 2014, p. 7)

The tutors voiced concerns about asking deeper questions. When to step in during seminar was also a common theme in the literature (Kaufman & Holmes, 1996; Darvil, 2003). Hitchcock and Mylona, (2000) suggest that after tutors understand the PBL process and accept the rationale, they need preparation on how to facilitate CBL sessions. This means learning to ask questions, when to intervene, and how to support active participation. Hitchcock and Mylona (2000) suggest that acquiring skills in facilitating CBL sessions comes with time and practice throughout a tutor's career. Practice workshops and new tutors facilitating experienced CBL students under the supervision of an experienced CBL tutor have been identified as effective

methods to learn facilitation skills (Hitchcock & Mylona, 2000). In addition, weekly meetings with teaching teams provides continuous support and training for tutors on implementing group learning (Johnson et al., 2006). One way instructors in this study handled intervening during students' discussion was to wait until students were about to move on to another topic.

> So I will sit and hope that one of the peer groups will ask the question I had in mind and get clarification on that point. It was a fine line between when do you jump in and should you. So a kind of small rule of thumb that I always use for myself was if I saw the group was moving on to another topic of discussion and away from something then I will ask my questions. . . I likened it to if a student is giving an injection and you see that maybe they are potentially going to do something wrong. I will wait until the very last possible moment before they give the injection to say, you know, because they might realise on their own that they forgot to bring the identification card with them and that they couldn't give that medication until they check their card with the patients . . . (FMe, Feb. 2014, p. 3)

Timing the learning process and stepping in when the students are moving on to a new topic in order to direct students are important and beneficial strategies for new tutors to learn.

After the first year with a dedicated 1:1 ratio of tutor-to-student-groups, there was an increase to a 1:2 ratio of tutor-to-student-groups. The process of facilitating in a CBL seminar is not an easy one when a tutor has two seminar groups at the same time. The reality of this challenge includes keeping track of students, including monitoring their research and evaluating them when the tutor is not always present with the students. As one of the tutors explained:

> One of the challenges for me with CBL has been the evaluation piece and completing TAGS (tutorial assessment), especially if you are with the students only half of the time. It became necessary to go through your emails and all of the feedback that I have provided to get a good sense of where the students were at. Evaluation has always been a bit more challenging with that to the degree that we need to evaluate our students. (FMf, Feb. 2014, p. 4)

In support of the assertion that the evaluation of students was an issue for tutors when tutors were only there half of the time, the students raised similar concerns in their interviews.

> I'm thinking in terms of how would we, as a group, write our self-evaluation and hand it in and get a mark for that. But you are right. If there is an instructor in the class who was invested in this group and invested in watching us grow and learn and do the things we need to do, then they could assign that grade. But if it comes down to, let's report on what we ourselves did and hand that in that can really be a bigger chunk of the mark of the course. (AD2a, Dec. 2013, p. 19)

Underlying this comment is the students' concern that their tutors might not evaluate them effectively because the tutors were in the seminars only half of the time. During the researcher's observations, she followed the tutors as they moved between their two groups. On one of her observations, the tutor asked her to stay with a group while she went to the other group. When the tutor came back after an hour, the class the researcher sat in had finished their discussion, so the tutor had missed it. However, the tutor did check the white board to see what had been done. She asked the group what they had covered (Johnson et al., 2006), to ensure that the scenario had been thoroughly explored. As much as evaluation was difficult for CBL tutors (Grkovic, 2005), it was also a major concern for the students. To ensure fairness, tutors have been encouraged to use different forms of evaluation when judging students' performance (Johnson et al., 2006). Hitchcock and Mylona (2000) noted that there are steps in preparing PBL tutors. Learning to assess PBL students is considered an advanced skill in tutor preparation. To develop that skill, tutors should be provided with workshops facilitated by consultants from schools with well-established PBL programs (Hitchcock & Mylona, 2000).

In order to address the issue of having a tutor run two simultaneous seminars, tutors adopted a method of informing students they would like to be in their seminar group during a particular activity. Tutors try to be present during brainstorming or at the end of the time when students were developing a care plan for the scenario. The students scheduled their seminars to ensure that their tutor was present to observe their learning during these times.

> Let's say both groups will be doing the same scenario. I might ask, I might want to be present for the brainstorming part and ask the other group to hold off if they can till I can be there in half an hour. The brainstorming will be one, um, or at the end of the scenario when they do the evaluation. We also pool all the information together and often we formulate the nursing care plan for that scenario for that client in that scenario and I like to be there for that. Because students quickly get off topic and sometimes they can't figure out the priorities and I find it will get boiled down to generalities. They need somebody to remind them how it will be with a real patient. (FMb, Jan. 2014, p. 5)

Tutors developed the idea of scenario management groups: three students (a leader, timekeeper, and recorder) from the seminar group guided the group for the day (Johnson et al., 2006). The tutor met with the scenario management group before the class to review how the group would approach the tutorial that day.

> Now another strategy that I use sometimes with groups and it works really well for my classes that I have first thing in the morning is that I ask to meet with representatives of the scenario management group from both groups. And you know I will go, I have a little mini agenda, I had gone sometimes as far as actually writing down points of concern or things I wanted to be sure they brought out in the class and I go over with them. And then they were responsible for ensuring that the discussion on this and this occurred while I wasn't there. . . . And so I have used that strategy. Either there was concepts that I thought were difficult or could easily [have] missed or if a particular group was struggling with working dynamics type of thing. . . (FMe, Feb. 2014, p. 5).

In summary, CBL is student-centered and the tutors noted that their main challenge was allowing students to take control over their learning while at the same time ensuring that they were covering the content. Tutors indicated that it was difficult to know when to jump in and ask deep questions, and address problems related to students who were not contributing to the CBL process. A key finding from this current study is that tutors will hold off suggesting content and not intervene in the CBL process until students are about to move on to a new topic. With the particular way CBL is enacted in this setting, challenges the tutors mentioned were monitoring and evaluating students' progress. Tutors negotiated with students to find out when the students wanted the tutors to be in their seminar groups so that certain major learning activities were done while the tutor was present.

Covering the Content

In order for the education of students to be effective in a PBL program, the selected scenarios should activate important past experiences of learners, provide an environment that is similar to the future work setting, and create an opportunity for the students to expand on their

learning in order to create their own knowledge. The quality of education will be compromised when one or more of these factors are not ensured (Dolmans & Schmidt, 2010; Schmidt & Moust, 2010; Yew & Schmidt, 2009). Much of the work of maintaining the quality of the education that students received in the CBL curriculum was to help students address the course objectives. The curriculum designers had included learning goals and questions in the course pack to guide the students.

> I have to say we have built in lots of guidelines. We have got all the learning goals at the beginning of each of [the] learning packages and then some questions at the end to sort of check. Trigger questions to kind of get them [to] expand their thinking. It comes down to that trust I think, and sometimes it's harder for faculty to kind let go. (FMp, Sept. 2013, p. 8)

Tutors were actively engaged in the CBL process, especially with first- and second-year students, to ensure students learned the process and covered the content. The tutors would clarify concepts and ensure students explored beyond general concepts in the scenario (Johnson et al., 2006). Sometimes the researcher observed that the tutors assisted the students to make decisions regarding answering the trigger questions in the learning package. Also, the tutors suggested topics that the students might explain further. Moving the students beyond general concepts was clearly identified as important by one of the tutors, who stated:

> So for example, [if] one dealt with a C1 fracture, I will say you cannot just look at [a] C1 fracture. You must look all the spinal levels and it's a reminder that you have to go broader or deeper than what the scenario is. And the good students will do that. The weaker ones will just go with C1, they will just go with the basis whereas with tutors' assistance or guidance they will learn to go deeper. (FMc, Feb. 2014, p. 7)

The process of ensuring that students met the course objectives and delved deeper into their learning required that new tutors in teaching teams were adequately informed about areas in the scenario that students had difficulty with. Much of this work fell to the experienced faculty members to inform new tutors on topics in the course students find it difficult to understand "so be prepared for that and maybe try to be present in their group when they are discussing that

particular concept or really check over their handout to make sure that their handouts include that pertinent information". (FMe, Feb. 2014, p. 4)

A new finding from this study focused on how to effectively facilitate in a CBL environment. One of the suggestions was to have experienced tutors prompting new tutors about areas that CBL students have difficulty understanding and suggesting the tutor be present during students' presentation. To maintain consistency among the seminar groups, teaching teams should meet frequently to share information about using CBL (Johnson et al., 2006).

Being informed ahead of time about areas in the scenario that students might have difficulty with was essential to enable the tutors to assist students to cover the course objectives. However, tutors were clear that they also needed to have firm basic knowledge in nursing in order to facilitate well in CBL (Pourshafie & Murray-Harvey, 2013; Solomon & Crowe, 2001). Participants emphasized that in the baccalaureate program they were preparing the students to practice as generalists. Hence, what each faculty member needed was to have enough of a clinical background, especially in medical-surgical nursing, to facilitate in-depth discussions and assist the students to apply their learning to clinical situations.

I have a pretty strong clinical background in terms of the med-surg so I knew when they were not able to go deep enough and that's where I will intervene and facilitate more critical thinking on their part. For example, if they had a case study they were doing a multiple sclerosis and I don't recall the names of the individual so that we assign the case study in terms of the patient, but if they were missing some data such as coping with MS and some of the body effects, I knew that they were missing pieces so then I will intervene: not give it to them, but ask them (FMd, Feb. 2014, p. 3).

In order to ensure that students discussed the expected content after going through the CBL process, the curriculum designers and tutors used strategies such as having course packs with clearly stated learning goals, recommending textbooks for learning course content, and forming cooperative teaching teams in the program (Johnson et al., 2006). Tutors recognized that they had active roles in the CBL program and ensured that students had the correct information.

They used their past knowledge to encourage students to acquire deeper learning and to apply that learning to a clinical context. A new finding from this study was that experienced tutors often prompted new tutors about topics in the scenario that CBL students had difficulty with and which required the tutors' presence during the students' discussion.

Maturing Process for Students

The students gained competence in the process after at least one year in the program. Both students and faculty members identified that the initial stage of CBL was stressful for students. However, the students matured through the process over one to two years of figuring out how to do CBL. Before the students became independent, tutors had to reassure them that with time they would be able to trust their own decisions as well as those of their peers. A tutor described her fourth-year students' growth in CBL: "When I was working in fourth year I had students come and say I get it. P4, I get it. Yea, yea. So it is a maturing process for students" (FMc, Feb. 2014, p. 13). The findings from this study support the recommendation that both tutors and students will need time to adapt to CBL (Allen, & White, 2001; Carrera et al., 2003; Smith & Coleman, 2008; Vahidi et al., 2007). During the adaptation period, students need a lot of encouragement from their tutors and peers; tutors need encouragement from their peers on their teaching skills, and to endure the initial stage until they master the process (Johnson et al., 2006).

Advantages of CBL

In addition to agreeing that learning in a CBL program is a maturing process for students, tutors also identified some advantages of CBL such as providing them with the opportunity to get to know their students very well (Johnson et al., 2006, 2014) and to learn about their own individual preferences:

I think in general, for me, facilitating small groups, 14, even if you have 56 students total and moving back and forth between small groups I get to know my students and I don't see how I will do that if I was lecturing to 120. I will know only those who came and ask questions afterwards or came to the office whereas I think I know a little bit about most of my students in the CBL format. That's the part I enjoy the most is getting to know them as people as students, their little quirks, their learning styles, is much more accessible than in a lecture format. (FMc, Feb. 2014, p. 11)

The participants who supported CBL said that another key advantage of the method was that it decreased the power differentiation between the tutors and the students because they were learning together.

I like the piece where this is kind of removed. . . . Because there is [a] power differential between the teacher and the student but with CBL I mean we should have some content expertise but I learn more every time I teach class, right, so we are teaching and learning, teaching and learning, teaching and learning and [that] removes [the] power differential, which makes it way more fun in the classroom (FMc, Feb. 2014, p. 13)

Although tutors felt CBL decreased power differences, some students found that the presence of certain tutors was intimidating. "She has and she still does have the strong influence in the class. And she is opinionated and of course we listened to her because she is the one marking us. The class was very quiet when she was there. So we were not outspoken when she was there" (AD1a, Nov. 2013, p. 3).

The CBL program was stressful for students, especially in first year while they transitioned from previous lecture-based learning to CBL. Tutors agreed that students needed lots of reassurance in the first year. By the second year, students were beginning to be responsible for their learning in the CBL process, which is an essential skill for their lifelong learning as nurses. By the fourth year, students had matured in the CBL program and completely understood the process. Hence, they were not as stressed as when they started. Furthermore, tutors recognized some advantages of CBL such as knowing their students personally and removing the power difference between tutors and students.

Controversies about CBL

The majority of the tutor participants had positive views about CBL. However, a small number of the participants (three out of 17) were frustrated with the method. Tutors who supported CBL identified fewer controversies than did those who challenged CBL. The categories that emerged under the domain "controversies about CBL" are "challenging CBL" and "ongoing faculty support."

Even though tutors recognised that students became used to CBL with time and there were some advantages to CBL, the roles expected from CBL tutors demanded a major shift away from traditional educational methods where the tutor is the main source of knowledge and the leader of the learning process. The tutor becomes a guide and co-learner with students (Hitchcock & Mylona, 2000; Pourshafie & Murray-Harvey, 2013). As a result, teachers who have taught using only didactic methods often find the transition to CBL difficult (Hitchcock & Mylona, 2000). The tutors involved in this study did recognize some controversies with CBL. Even among the group that had positive experiences with CBL, tutors said that they had heard about some tutors who were not participating in their assigned CBL seminars. The tutors were not participating because they had the perception that in CBL they should not be actively involved.

> One of the things that we've always had some difficulty with is that sometimes faculty had a perception that in CBL, because it was student-driven, that they, as tutors, should not be engaged in the discussion and not be involved. So they sit outside of the circle or sit quietly and [do] not say 'boo' the entire tutorial class. And that is the farthest thing from the truth. I mean, the tutor does not give up that role responsibility of being accountable for the teaching and learning process, and so if something is being missed by the students [the tutors] need to be bringing that up and helping the students work through and understand the concept. (FMe, Feb. 2014, p. 2)

It is obvious that some tutors did not understand the CBL method and had incorrect impressions about it (Hitchcock, & Mylona, 2000). These misconceptions should have been corrected during

the initial workshop for tutors where the values of CBL were explained assuming the tutors who were frustrated with CBL participated in the orientation workshops. Also, during frequent meetings and discussions with teaching teams, tutors were provided continuous education on CBL to address any difficulty they were encountering using the method (Johnson et al., 2006).

Apart from having the impression that they were not supposed to be actively involved in CBL, some tutors said that they had the opinion that in the Faculty any form of didactic teaching was not discouraged. Because emphasis in the Faculty had been on CBL, some participants indicated that they almost unofficially got the impression that a lecture was not a good teaching method.

> That's certainly a controversy aspect of it. I think there are some people who are more invested in CBL than others. Um, sometimes with CBL I almost unofficially got the idea that [a] lecture wasn't a good thing anymore and I still very much like [a] lecture because it works very well for me. When as the faculty is going through a new curriculum coming up, there is going to be more academic freedom and people will be able to use more variation on the CBL process and I think there are different schools of thought about that. (FMb, Jan. 2014, p. 10)

Although CBL is supported in the Faculty, even members of the group in favour of CBL indicated their support for the lecture method because they knew what had been taught and could incorporate difficult concepts into a short lecture for clarification, so that students could understand.

> So I have seen that I can do a short didactic session on a topic and incorporate that quite nicely into a group discussion and invite input. In fact, we all have things like debate where I will bring up a topic such as vaccine[s] and the controversy around vaccine[s], and give a little bit [of] background information and some of the issues and then have students divide into teams and have a debate so they will do a little bit of research on the pro and con side and then do a debate. . . (FMf, Feb. 2014, p. 6)

From the tutors' data, it is clear that tutors are prepared to use CBL along with lectures in some situations and to clarify concepts for students, especially at the beginning of the CBL process. This view about using lectures in CBL/PBL has been discussed in the literature in terms of providing foundational knowledge for the initial year of an undergraduate program (Anderson,

1997; Trapper, 2006) as opposed to the view that students can successfully solve scenarios on patient conditions without a firm foundational knowledge (Hitchcock & Mylona, 2000). The students shared a common opinion that lectures should be a part of CBL. Students in tutorial courses do receive a weekly lecture in all courses throughout the program. From the researcher's observations in CBL seminars, first-year Collaborative and After Degree students were very attentive when their tutors explained new concepts and laboratory reports to them. These "mini-lectures" alerted them as to what to observe when nursing patients with the condition being discussed in the scenario. An important finding from this study is that both tutors and students share the view that CBL should be mixed with lectures to educate students).

Challenging CBL

This section includes the opinions of the very small number of participants in the study who expressed frustration with CBL. These tutors were frustrated because they felt that orientation to CBL was inadequate, one learning strategy was overemphasized, they were labeled, unable to share their expertise, frustrated with outdated course materials, and morally distressed. One participant had this to say about faculty orientation:

> It was useless. There was a lot of assumption that people already understood what CBL was and so they were starting from that place. And I knew nothing about it. I needed a basic explanation about what it was. And it was already starting not to make sense to me. I think it will be helpful to have a better explanation right up front at the orientation. (FMa, Nov. 2013, p. 4)

It is clear that these faculty members did not understand CBL and the rationale for using it (Hitchcock & Mylona, 2000), and therefore she was frustrated. According to Hitchcock and Mylona (2000), in order for tutors to adapt adequately to CBL, they need to be taken through the sequence of preparation. Part of the initial preparation is to help them to comprehend the reasons for switching to CBL. Those who challenged CBL indicated that they were actually labelled as somebody who "did not get it" and were considered to be a problem. There are various ways to

overcome these problems: the Faculty can offer educational sessions at a variety of times to accommodate faculty interested in learning more about CBL and how the approach is based on principles of adult learning. Also, the Faculty can schedule frequent team meetings to reduce tutors' feeling of isolation and discuss accomplishments and challenges with the use of CBL method (Johnson et al., 2006).

The other concern raised by the participants who challenged CBL was being labeled as not supporting CBL which made them feel less safe in the educational setting:

> More than just being an outsider, you are actually labelled. . . You are actually labelled as somebody who doesn't get it, or hasn't made the transition, or doesn't value this, or can't cope or whatever. So you are not just peripheral, you are a problem. (FMa, Nov. 2013, p. 7)

In addition, the participants had the perception that there were people in the Faculty who spoke unfavourably about lecture methods. Participants had a sense that people in the faculty didn't merely support CBL, they were disparaging about lecture-based teaching. One tutor said she had heard people saying that a lecture was:

> A didactic teaching method, as if it is an awful thing to teach your students, to stand in front of them to teach them something you know. Nobody wants to listen to someone going on and on in a boring way for hours and hours. But [a] lecture doesn't have to be like that. It can be inspirational. And it is a way for students to learn some of the things from someone who knows. (FMa, Nov. 2013, p. 14)

The researcher's understanding is that the small number of tutors who were challenged by CBL opposed the method because they felt it implied that lecture method was not effective. In lectures, these tutors felt they had control over the content and could adjust it as necessary. Conversely, in CBL they could not easily make corrections because every scenario had to go through a committee. What frustrated these participants was the delay in updating course materials.

> When I taught [in the] lectures format it was very engaging. I had students in thought, and discussion, you know I could choose what recent literature to talk about to help them learn things

that should be complex things for them to learn and I could help them to understand it and clarify it for them. And you know with the CBL it is old and stale and dead. And even if I'm an expert, even if I wrote my thesis on one concept that turns out to be in the scenarios I cannot change it because there is a committee. (FMa, Nov. 2013, p. 15)

In order to decrease some of the frustration associated with the curriculum, members of teaching teams have been motivated to co-plan, design, teach, and evaluate courses to contribute to the task of developing the learning packages (Johnson et al., 2006). Tutors' involvement in writing CBL scenarios contributes to the success of the program because they claim ownership of the new program (Anderson, 1997; Trapper, 2006). On the other hand, writing scenarios is considered an advanced skill in PBL (Hitchcock & Mylona, 2000), one that is developed after tutors understand the PBL approach and master skills in facilitation. On this basis, tutors who were frustrated by the CBL method could have been provided a workshop to help them understand the process and then involve them in writing the scenarios. In the CBL educational setting, there is a scenario committee that has the mandate to write and review scenarios. Tutors must go through the committee to suggest any changes. Besides not being able to make changes to the scenarios, faculty members who struggled with CBL experienced frustration because they felt their expertise as PhD-prepared educators was undervalued: "I guess it's frustrating as a researcher to be supervising study groups and not sharing my expertise with them because I'm not teaching in my content area"(FMa, Nov. 2013, p. 9).

It is documented in the literature that for an effective facilitation, tutors should possess knowledge on the course content they are facilitating in order to introduce their learners to important information and function as resources (Pourshafie & Murray-Harvey, 2013). The findings from this study align with that of Hitchcock and Mylona (2000) that it is not uncommon for PBL/CBL tutors to have challenges with the scenarios used. Hitchcock and Mylona recommend that tutors work with specific scenarios to acquire skills in that subject area. These

recommendations include meeting with tutors before beginning a CBL course and a weekly meeting during the course to address concerns with acquiring-content specific skills (Hitchcock & Mylona, 2000; Johnson et al., 2006). Weekly course meetings did occur during implementation and continue to occur in the research setting. It is also important to note that because this is a basic baccalaureate program, students are learning to be generalists.

The consequence of being frustrated with the CBL program was being "stressed out" and "morally distressed." Participants said that they were stressed out because they could not help the students, because CBL emphasized students' self-directed learning.

> We can't be too helpful to the students. There is that sense because that might kind of [be] cheating or something [on] the self-directed bit. So [it reached] even to a point where as a team, as a teaching team, we decided we cannot tell them what pages or chapters to read in the textbook. They need to be able to learn how to figure [things] out on their own. Which I think [is] (a), a very easy skill to learn to look at the index, and (b), something that we could do that will actually be in support of the students. (FMa, Nov. 2013, p. 8)

Another faculty member echoed that sentiment, saying she was frustrated by watching the students direct their own learning.

> And as a tutor I sit there and watch them teach themselves and each other nursing poorly and shallowly and that causes me tremendously (sic) distress and anxiety. The fact that what they learn in the courses is disconnected from what I know is also distressing because I sit there with them while they talk about many, many topics in the areas of nursing that I don't know about. And so perhaps I look stupid. I don't know. Perhaps, I hide it well. But, certainly I'm not there to offer to them what I know the most about. (FMa, Nov. 2013, p. 9)

From this quote above, it is likely that the tutor did not understand some of her role, such as clarifying misinformation by asking students questions (Johnson et al., 2006) to challenge their thinking about basic entry-to-practice knowledge and skill. The faculty members indicated that they were morally distressed for valid reasons, and as a result they resisted the transition to CBL. "I think I try to adjust and conform very well for the first while. And the more I do it the less adjusted I feel. The more disconnected, it's tiring, it's distressing, I guess," said one (FMa, Nov.

2013, p. 7). Added another, "I will agree with that. I will say [I have felt] morally distressed (FMa, Nov. 2013, p. 7). One participant overcame the moral distress by directing students to where to find information. Also, the tutor said she refused to teach in CBL, and described her decision as a coping mechanism.

> I have done and started to do certain things that will probably be considered cheating, like directing my students to what chapters or pages to read, and trying to, you know, when they are talking about a scenario that I don't have expertise in, I often seek out experts and try to get some information and try to help the students . . . (FMa, Nov. 2013, p. 12)

Very few tutors were so frustrated with CBL that they chose to not make the transition. These tutors struggled with CBL because they believed that it was over-emphasized as the primary teaching method in the FON. Equally frustrating to them was that students were stressed in the CBL program and tutors could not help them because of the emphasis on self-directed learning. The tutors felt that their expertise was underutilized in the CBL program and they were unable to easily change outdated course materials. In fact, learning packages are reviewed regularly to ensure relevance and currency.

Ongoing Faculty Support

The discussion around CBL revealed that some faculty members had concerns about CBL even after the initial training program (Hitchcock & Mylona, 2000). Therefore tutors, especially those frustrated with CBL, required ongoing support to clarify misconceptions and explain the rationale of CBL. It was the responsibility of the Tutorial Consultant in the study context to assist tutors to identify the similarities and differences between what they were doing in an interactive didactic approach and what they would be doing in CBL. One of the tutorial consultants said that when she was put into a position where she was accountable for helping the tutors, she would

go over the program's conceptual frame work, our belief systems, our teaching and learning principles, and, you know, help them see how maybe what they were doing in their large classes was a similar function to what they will be doing in a smaller groups (sic), too, in terms of their inquiry-based questions that they will be asking the students. (FMe, Feb. 2014, p. 2)

Another way the FON helped new faculty members adjust to CBL was to remind them about the instructor guide that tutors could refer to. The instructors guide will guide tutors about the depth required when discussing the content of a scenario. They also scheduled regular meetings for their teaching teams, to discuss challenges and learn successful strategies from other tutors (Johnson et al., 2006).

Some of the support came in the form of an instructor's guide for the scenarios and reassurance that what they were doing in interactive lectures was not that different from CBL. In both situations, tutors would be facilitating student learning by guiding learning rather than controlling it (Johnson et al., 2006). In addition, experienced tutors could jointly teach content with less experienced tutors to model the use of CBL (Johnson et al., 2006). These tutors needed to understand that in a baccalaureate program the students were being prepared to practice as generalists and so the expertise the tutor required was strong medical surgical experience.

In summary, the faculty data revealed two kinds of transitions that occurred for tutors in the CBL program. There were tutors who had made the transition and those who had not adapted. The program has been used in the faculty since 1997. Most of the participants involved in this study were part of the team when the FON made the transition to the CBL curriculum. Fourteen of the tutors interviewed indicated that they had adapted to the CBL process and had positive views about the method. The tutors indicated that they were well supported when they started and because the basic principles of learning had not changed, the transition was an adaptation for them. The tutors also shared that one of their main challenges in facilitating in a CBL seminar was trusting that the students were covering the course content while going

through the process. To address the tutors' concerns, strategies have been put in place in the CBL curriculum, such as learning packages that include an identification of core concepts to be addressed, as well as trigger questions to stimulate critical thinking. The tutors who participated in the study agreed that CBL was a maturing process for students. A key finding from this study was that both tutors and students would like CBL to be combined with lectures in educating students. Although many of the tutors had adapted to the CBL process, there was a small number of faculty members who experienced moral distress because they were frustrated with the decreased emphasis on a lecture method and increased emphasis on CBL teaching and learning strategies.

The Cultural Theme: "Trusting Each Other and Trusting the Process in a CBL Community of Learning"

Spradley (1979) defines a cultural theme, the final level of his analysis, as a cognitive principle that is either expressed or implied by informants, and which influences their behaviour and occurs in more than one domain. Informants express cultural themes as assertions and core values they believe in. Cultural themes link subsystems of a culture and are often at the tacit level of knowledge. As a result, the researcher must be immersed in the culture as well as the data to identify informants' core values and what they accept as truth. From the different domains discussed in both students' and faculty data, the most important principle that underlines the domains is "trusting each other and trusting the process in a CBL community of learning."

In a CBL program, learning is a social activity in which learners interact with their classmates, tutors, and the course materials to construct knowledge (Johnson et al., 2006). The classroom becomes a learning community that involves tutors and students who depend on each

other (Johnson et al., 2006; Pourshafie & Murray-Harvey, 2013). The tutor in a CBL class is not an all-knowing being who is expected to transfer knowledge to students, who in return are required to memorize and recall the information provided (Johnson et al., 2006; Pourshafie & Murray-Harvey, 2013). Instead, the tutor guides and jointly learns with the students to create a supportive environment where students collaborate with each other to achieve a shared goal as well as improve each classmates' learning (Johnson et al., 2006; Pourshafie & Murray-Harvey, 2013). From the students' data, the thoughts that were really important to CBL students were trusting that the information they were receiving from their peers was correct and that they were learning the important content they needed in order to pass their exams. In addition, the students wanted each classmate to contribute to the learning process, such as by bringing out the important points they needed to know and using different presentation styles to teach peers. The students had great expectations from their peers and had to build trust in them because, they agreed, they needed their peers' contribution as well as direction from their tutors to succeed in CBL (Johnson et al., 2006). Thus, "trusting each other and trusting the process in a CBL community of learning" became a major theme for the students and forms the cultural theme from their data.

Similarly, the theme that ran through the tutors' data was their concern about how to make sure students did not miss important content when going through the CBL process. Tutors were concerned about how to assist students to engage deeper in learning in a student-driven curriculum. The concern of CBL tutors was addressing core content while ensuring that students delved deeper into their learning. From both sets of data, the researcher conclude that the cultural theme for students and tutors is "trusting each other and trusting the process in a CBL community of learning." Therefore it was essential for both students and tutors that during their

transition they identified and engaged in activities that led to trusting each other and trusting the CBL process in order to make a successful transition and eventually succeed in the program. Both students and tutors felt that CBL education was successful when students completed the baccalaureate program, passed their licensure examination, transitioned effectively into their clinical practice, and did not express resentment when they recalled their learning in the program (Johnson et al., 2006, 2014).

To summarize, although there was a difference in how students and tutors transitioned into the CBL program, both transitions follow trends reported in the literature. The students' transition was characterized by an initial stage of confusion about making the decision to remain in the program and, finally, no longer being anxious about learning that way. Some key findings emerged from the students' data: they wanted direction from their tutors on what they should be learning and were concerned about the difference in facilitation styles among CBL tutors. They felt the difference in styles influenced how much students trusted CBL. Initially, the students were not in favour of the popular theory guiding CBL, that they should begin their learning with scenarios in order to develop their own knowledge. The students initially believed that they did not have a sufficient background in nursing to be able to "teach" themselves and trust each peers' contribution to their learning. However, after one year of being in the CBL program and with continuous assurance from their tutors, the students developed trust in their peers and identified some benefits of "learning" in the CBL program. Some of the benefits the students identified are being able to research credible information, reason through situations, work in a team, and teach their patients. All are important skills that students will need in their future roles as registered nurses.

The majority of the tutors made the transition by trusting the students and the CBL process, and developing strategies to ensure that CBL students covered the content. A key finding that emerged from the tutors' data was that they had to carefully time when and how to intervene in the CBL process before students moved on to a new topic without having completely explored the current topic. Experienced tutors guided new tutors about topics in the scenarios that students had difficulty with, and suggested that the tutor be present during students' discussion of those topics. Since the CBL program is well supported by the FON, there existed the impression that the didactic method was discouraged, which distressed a very small number of tutors who were challenged by the CBL method. Both tutors and faculty suggested that students should be educated using a combination of CBL tutorials and lectures. The final level of the data analysis revealed that "trusting each other and trusting the process in a CBL community of learning" was the cultural theme guiding the behaviour of both tutors and students in the program. By the third and fourth years in the CBL program, students had matured and grown to trust each other so that they became more independent of their tutors. Similarly, there was an increase in the tutors' trust in their students and the CBL process by the end of a course.

Meleis's et al. (2000) middle range theory on transition is consistent with this study's outcome. According to Meleis and colleagues transition is complex and involves many patterns. People in transition seek ways to overcome the anxiety associated with the transition. There are personal and contextual factors that can facilitate or hinder a successful transition. Individuals involved in transition can respond to the challenge by developing coping behaviours in order to experience a successful transition. The transition for students involved adjusting to university, learning a new instructional approach, and having to talk in the presence of their colleagues who they consider to be strangers. Hence, there were many things going on simultaneously with

student transition to CBL which is consistent with Meleis et al's framework. With the confusion that students were experiencing initially, they became conscious they were in transition and sought ways to cope with the change. The student' personal beliefs about the role of the teacher and student in the classroom made them to be challenged by CBL. Consistent with Meleis's framework there were also contextual factors that contributed to student transition such as learning from peers. Over time students learned to connect with their peers, recognizing that in CBL the classroom is a learning community where they depend on each other to succeed. The students developed additional coping skills such as choosing the essential points to present in their research, and skimming through materials quickly to allow more time for studying. All of these coping behaviours enabled the students to have a successful transition which is consistent with Meleis et al's framework.

Although the tutors' transition experience was not characterised by the same anxiety as the students', there were also stages to the tutors' adjustment as supported by Meleis. Anticipating the change to another teaching and learning approach, tutors prepared themselves. They read about CBL and some focused their Master's research on CBL. Most tutors supported the use of a variety of teaching and learning approaches. For tutors, their transition was enhanced by a community of support from the faculty. The majority of the tutors responded positively to the transition as they connected with experienced tutors, worked in teaching teams and developed mastery skills through practicing CBL. There was a small number who resisted the transition which is congruent with the literature that suggests that some faculty resist transition to active student learning approaches because of the change in their roles.

Table 5. Results and Recommendations Based on Students' Focus Groups

Domain	Results Category and themes	C1	C2	C3	B1	AD1	AD2
Throwing into an ocean	Out of comfort zone	Y	Y	Y*	Y	Y	Y*
	Lack direction	Y	D	N	Y	Y	N
	Lack information	Y	Y	Y	Y	Y	Y
	Lack confidence	Y	D	N	D	Y	Y
	Turbulence	Y	Y	Y*	Y	Y	Y*
	Anxiety about exams	Y	Y	N	Y	Y	N
	Recommendations						
Tutors provide more directions to first year students							
Tutors discuss AD students' expectations about grade (new discipline & pedagogy)							
Faculty to give orientation before starting CBL and later reinforces							
Third year students reassure first year students through mentorship							

Note: C = collaborative, B = bilingual, AD = After Degree, 1 = year 1, 2 = year 2, 3 = year 3 Y = yes, * = referring to year 1, N = no, D = depends, U= unknown

Table 5. Results and Recommendations Based on Students' Focus Groups (continued)

Results		C1	C2	C3	B1	AD1	AD2
Domain	Category and themes						
Sink or Swim	Depending on peers to learn	Y	Y	Y	Y	Y	Y
	Lack trust with peers	Y	Y	Y	Y	Y	Y
	Conflict in groups	Y	Y	N	Y	Y	Y
	Experience with CBL tutor	Y	Y	N	Y	Y	N
	Tutors facilitate differently	Y	Y	Y	Y	Y	Y
	Lack variety in pedagogy	Y	Y	Y	Y	Y	Y
Recommendations							
Tutors periodically reassure students							
Mentorship for tutors to increase consistency and strengthen trust							
Use lectures to explain difficult concepts							

Note: C = collaborative, B = bilingual, AD = After Degree, 1 = year 1, 2 = year 2, 3 = year 3 Y = yes, * = referring to year 1, N = no, D = depends, U= unknown

Table 5. Results and Recommendations Based on Students' Focus Groups (continued)

Domain	Results Category and themes	C1	C2	C3	B1	AD1	AD2
Turning point	Making the decision	Y	Y	N	Y	Y	N
	Figuring it out	Y	Y	N	Y	Y	N
	Recommendations						
Tutors reassure students that CBL takes time to learn							
Include discussion in orientation about success rates in programs and national exams							
Just doing it	Comfortable with each other	N	Y	Y	N	N	Y
	Know how to do CBL	N	D	Y	D	N	Y
	Create time to practice	Y	Y	N	Y	Y	N
	Anxious about clinical	Y	Y	N	Y	Y	N
	Link tutorial, lab & clinical	N	Y	Y	D	N	D
	Recommendations						
Closer support and supervision during initial clinical experience							
Valuing	We know a lot	D	Y	Y	D	N	Y
	Developed critical thinking	D	Y	Y	D	N	Y
	Able to work in group	D	Y	Y	D	N	Y
	Able to teach	D	Y	Y	D	N	Y
	Recommendations						
Have senior students talk to junior students about their experience with CBL							

Note: C = collaborative, B = bilingual, AD = After Degree, 1 = year 1, 2 = year 2, 3 = year 3 Y = yes, * = referring to year 1, N = no, D = depends, U= unknown

Table 6. Results and Recommendations Based on Tutors' Focus Groups

Results		Supporting CBL	Challenging CBL
Domain	Category and Themes		
It was an adaptation	Well supported	Y	N
Recommendations			
Tutors need to understand the philosophical and pedagogical basis of CBL			
Trusting the CBL process	Challenges with facilitating	Y	Y
	Covering the content	Y	Y
	Keeping track of students	Y	Y
Recommendations			
Strengthen trust through mentorship			
Tutors be present when complex content is discussed			
Maturing process for student	Advantages of CBL	Y	N
Recommendations			
Promote student mentorship about growth in and value of the CBL process			

Note: Y = yes, N = no

Table 6. Results and Recommendations Based on Tutors' Focus Groups (continued)

Results		Supporting CBL	Challenging CBL
Domain	Category and Themes		
Controversies about CBL	Challenging CBL	Y	Y
	Misconceptions about lecture	Y	Y
	Orientation was adequate	Y	N
	Ongoing support	Y	Y
Recommendations			
Tutors need to understand the philosophical and pedagogical basis of CBL			
Provide orientation about CBL and later reinforce			
Provide ongoing faculty support through mentorship			

Note: Y = yes, N = no

Table 7. Summary of Findings

Cultural theme "Trusting each other and trusting the process in a CBL community of learning"

Students findings	Faculty findings
1) Throwing Someone into an Ocean a)stepping out of comfort zone b) turbulence	1) An Adaptation a) well supported
2) Sink or Swim a) depending on peers to learn b) conflict in groups c) experience with CBL tutor	2) Trusting the CBL Process a) challenges with facilitating CBL seminar b) covering the content
3) Turning Point a) figuring out how to do CBL	3) Maturing Process for Students a) advantages of CBL
4) Just Doing it a) becoming comfortable with each other b) knowing how to do CBL c) creating time to practice d) linking tutorial, lab and clinical	4) Controversies about CBL a) challenging CBL b) ongoing faculty support
5) Valuing a) knowing a lot b) developing critical thinking c) working in a group d) able to teach	

Chapter Five
Implications

The aim of this research was to provide a detailed description of the transition of faculty members and students to the culture of a context-based learning (CBL) curriculum to address a gap in the literature. CBL has promising benefits such as improving problem-solving skills, continued learning, and teamwork, all of which will positively affect students' future practice as registered nurses (RNs). However, the initial stage of transition from a traditional educational to a CBL approach is challenging. The response of participants in this study, especially the students, supports documented research findings. This study is the first known study report that indicates the experience of transition to CBL culture and differences among undergraduate nursing programs. This study provides a new contribution to CBL literature about the experience of students and faculty transitioning to a CBL program. Major findings are that CBL is not comfortable for students, they find writing exams in CBL difficult, CBL tutors facilitate differently, and they would like a combination of lectures and CBL in their education. CBL students have different levels of anxiety during transition to clinical practice and tutors require skills to monitor students learning. The findings of the study have implications for nursing education and provide recommendations for future research in a student-centered learning program.

Education

The findings from this study highlight the culture of learning and facilitating in a CBL program. Through the various data generation processes, these study findings reflect the stages involved in making a transition to a culture of CBL. Participants provided suggestions about how nursing faculty can assist students and faculty members' transition to a CBL curriculum.

Students were provided an orientation on CBL in the form of a skit performed by previous CBL students. However, the student participants in this study felt that the explanation of CBL they received at orientation was not sufficient. The students did not understand from the orientation that they would be learning with their peers, that the tutors were there to guide their learning, and that the CBL process would occur for the entire three hours of each tutorial session. Similarly, some tutors in this study had challenges with their own transition to CBL. The first concern that some faculty members expressed was that the presenters in the faculty orientation made assumptions that the tutors understood CBL when they did not. To avoid this problem in the future, it would be beneficial to walk the students and tutors through the philosophy of the CBL curriculum, including the belief that knowledge is socially formed through interaction with peers, course materials, tutors, and responding to the reactions of peers. It is important that at orientation, students and tutors are made aware of the CBL belief and pedagogy in order to increase their trust in the strength of social learning. Any misconceptions such as tutors should not be actively involved in CBL, must be clarified.

The other challenge students had with using CBL was commencing their learning with scenarios because they did not know which information was important and which was merely additional information. Although some courses, such as anatomy and physiology, were taught in a lecture form, the students did not want to learn their nursing courses in a CBL format. The students felt that their colleagues did not have any background knowledge in nursing and therefore were not qualified to be helping them learn. Hence, they felt it was a waste of their time and money to be learning from their peers. The students described their initial transition experience as “throwing someone into an ocean,” where they did not have enough direction and were very anxious about whether they would succeed in the program. The student groups were

slightly different in terms of their concern with CBL. Although all the three student groups would like more direction on their learning especially at the beginning of CBL, the After Degree students were frustrated that their grades did not reflect their past degrees.

Associated with not knowing which information was important to study was anxiety linked to writing exams in CBL. The students found writing exams in CBL to be very stressful, unlike in a traditional curriculum (Janing, 1997; Johnson et al., 2006). The reasons the students in this study gave for finding exams in CBL stressful were that they had learned so many things from their seminars and had large numbers of handouts from their research but did not know which knowledge to take away and what to study for the exams. Although students had the same course package with essential concepts identified and had been told to use the recommended textbook as their guide, they continued to find the exams difficult to write. Since multiple choice questions (MCQ) are a recognised testing tool in active learning programs such as CBL, Johnson et al. (2006) recommend that MCQs be a routine part of the students' learning process.

Another main concern the students shared was who their tutor would be, because they realized that different tutors facilitated CBL differently. In CBL, the tutor is a co-learner with the learners and serves as a guide on the side of the students (Hitchcock & Mylona, 2000; Johnson et al., 2006; Pourshafie & Murray-Harvey, 2013). However, the findings of this study indicated that some students might not have this support from their tutors.

In terms of the contribution of this study to practice, this study suggests that the students experienced transition to the clinical setting differently based on their level in the program. First year students were very anxious while second year students were trying to fit into the clinical environment. The third year students had become comfortable because they had been to the units and knew what was expected from them.

Through the students and tutors data, trust evidenced as a major concern in the CBL approach. The students struggled with trusting peers to come up with the essential concepts they needed to pass a course. Similarly, the tutors were challenged with trusting that after students had gone through the CBL process they would learn what they were expected to learn.

Tutors also expressed a concern about monitoring CBL students' performance. Beginning from second year of the program, the tutors were in the CBL class half of the time as a result they did not always observe students learning. A small number of tutors expressed frustration with CBL, especially when called upon to facilitate discussions about scenarios that didn't relate to their specialty. These tutors indicated that they could not be very helpful to the students when they were discussing scenarios that fell outside of their area of expertise.

Recommendations for education. This study contributes to literature on transition to CBL through the new areas identified. Transition to CBL was difficult for some tutors and students. For the students, a key finding from the study was that CBL is out of their comfort zone because the process is new to them. In addition, tutors and students suggested that the information provided at orientation was not enough.

Based on the study findings, it is recommended that the Faculty schedule orientation for CBL in two parts: one before starting CBL that involves senior students talking about their experience and the other after the first term of CBL has started to explore student experience in the program. Furthermore, the Faculty should evaluate the content of the orientation and ensure it meets the needs of tutors and students. Tutors and students should be reassured during orientation about the historic success of students on the national licensure exams.

In order to reduce the anxiety associated with transition into CBL, especially in the first year, both didactic and CBL methods could be used to facilitate learning. Lectures could be used

to provide some core nursing knowledge (basic scientific information) and explain difficult concepts to students, followed by using CBL to apply the information. Regarding the After Degree students' frustration that their grades did not reflect their past degrees, the researcher recommends that during orientation tutors discuss with After Degree students their expectations about grades and that initially they may feel their past experiences are not used and this is because they are in a new discipline, and using a new learning strategy. Tutors should encourage After Degree students to share their previous learning when appropriate to various scenarios. Also, tutors should maintain open discussion with the students to find out their concerns with the teaching and learning method.

In terms of anxiety over writing exams in CBL, it is important to maintain consistency between the method of instruction and examination questions (Johnson et al., 2006). Furthermore, tutors should employ different methods of assessment in order to be fair in their judgment of students' performance (Johnson et al., 2006). The most essential element for learning in CBL is positive interdependence where tutors create a social context in the classroom for teamwork to occur (Johnson et al., 2006, 2014). Thus, CBL tutors can provide the social context for learning, directions, and feedback, and also monitor students' contribution to the learning process (Johnson et al., 2006, 2014). It is suggested that trust is strengthened in the CBL approach through mentorship. Experienced tutors should share their success and challenges with new tutors as well as alert new tutors about content in the course that students find difficult to understand in order for the tutors to provide more direction to students. Third year students can reassure first year students through mentorship. Tutors should periodically reassure students they are reading through their research and they will inform students about areas that may need additional information.

To achieve the level of confidence students require for transition to the clinical setting while in school, Eccles and Midgley (1984) encourage teachers to support learners by giving them frequent feedback, monitoring group work and increasing students awareness that they are responsible for completing their task in order to increase their academic performance and build their self-confidence. In addition, tutors could accompany students to the clinical setting during the first few weeks to enhance their smooth transition from academic to practice setting (Bronfenbrenner, 1979). Although, Bronfenbrenner (1979) recommendation was for the transition of children from home to school the researcher believes the suggestion can be applied to nursing students' transition to the clinical environment.

Based on the new understanding from this research about monitoring CBL students learning, the tutors in this setting advocate that tutors negotiate with students about scheduling their learning in order for the tutor to be present when complex content such as brainstorming and writing the care plan are discussed. Hitchcook and Mylona (2000) recommend that tutors be prepared about how to facilitate CBL sessions after they understand and accept the approach. Tutors need preparation workshops on asking questions, intervening in discussions and supporting active learning. Finally, tutors who find CBL to be challenging should be given ongoing support by their colleagues, team leads, Associate Dean of Teaching and through seminars organized by the Faculty. For tutors who are frustrated by CBL because they are facilitating discussions about scenarios that don't relate to their specialty, Johnson et al. (2006) recommend that in student-centered learning programs, tutors jointly design and teach courses to support each other as well as maintain consistency in the program. In a university milieu where research is a faculty member's focus, joint teaching of a course could be a suitable option for some faculty. Another suggestion is to mentor new tutors in order for them to become

comfortable with facilitating in CBL. In addition, there could be ongoing sessions on questioning and conflict management, and advanced facilitation skills such as evaluation and student assessment.

Research

The researcher made efforts to understand and describe the culture of the students and tutors making the transition to a CBL curriculum (Munhall, 2007). Transition to CBL was a common experience and therefore all students could share their opinions on the topic. This research illustrates the use of CBL to "cultivate and develop" (Johnson et al. 2006, p. 1:9) nursing students to meet the demand of the ongoing changes in the 21st century. The findings from the study show that there are some differences in transition among undergraduate students with different education background. Furthermore, trust emerged as a major finding that needed to be strengthen among tutors and students through activities such as mentorship. The study has potential importance to the Faculty of Nursing at the research site through the recommendations made to guide a future review of the CBL program. Because the study was qualitative and conducted at only one site of the Collaborative program, the findings cannot be generalized beyond the sample. The study contributes to literature in nursing on faculty and students transition to a CBL curriculum.

Recommendations for further research. Throughout the research, the student participants shared that they would like to be provided with basic knowledge in nursing through lectures before using CBL. In the CBL program, students were provided a three-hour lecture every week in the form of fixed resource session. However, the findings from the study show that the students did not like the fixed resource sessions. Based on this finding, further research is needed to explore students' perceptions of the fixed resource session.

The students shared that their success and satisfaction in the CBL program depended greatly on the tutor assigned to work with them (Johnson et al., 2006, 2014). Some students also expressed concern about differences and subjectivity among tutors. Similarly, the tutors discussed their uneasiness with facilitating two CBL sessions at the same time, which made student monitoring students to be challenging. Additional research is needed to explore tutors' contributions to students' experiences and levels of satisfaction with CBL. It would be worthwhile to explore the impact of tutors on students' experiences, as well as a follow-up of CBL students six to 12 months after graduation. Additional research is required to explore differences in transition to CBL among undergraduate nursing students with different educational background. A research study is required to explore the influence of mentorship on tutors and students transition to CBL.

Limitations

The intent of qualitative research is to produce a rich description of an experience in this case the experience of students and faculty transitioning to the culture of CBL. One limitation is the unique aspects of the application of CBL in this particular setting. Another limitation was the small numbers of participants in the focus groups and the individual interviews. The strength of focus groups is to create a broad and rich understanding of a process. However, even with the small numbers there was enough consistency to generate a rich description of the culture of transition. Another limitation was the possibility that as the researcher became more immersed in the culture she could lose some of her objectivity. To avoid this possibility, the researcher maintained an audit trail, setting aside assumptions (bracketing), and being as reflexive as possible.

Conclusion

Research conducted on teaching and learning suggests that there is a need to change the method of teaching students so that they can function successfully in the modern world. Even though the traditional lecture approaches do have some usefulness, there are major concerns about its deficiencies such as decreased learner involvement and learners challenges transferring knowledge to practice setting. Active, student-centered teaching methods such as CBL have been introduced and provide promising advantages such as increasing students' problem-solving skills, collaborative learning and interest in continued professional learning. However, there is a tension between less direction and focus on self-directed learning in students centered learning methods and the benefits this learning approach offers after going through the instructional method. This tension suggests that making the transition from a traditional to a CBL curriculum is difficult for some tutors and most students, but once they adapt to the new method, they find they have no problems with the program. The purpose of this study was to learn more about the experience that students and faculty members have while making the transition to the culture of a CBL curriculum and contribute to knowledge and literature on CBL. The major findings identified from the study suggest that faculty members and students have challenges with transition into a CBL curriculum. These include CBL being out of students comfort zone, difficulty writing exams in CBL, tutors facilitating differently and students preferring a combination of lectures and CBL in their education. CBL students have different levels of anxiety during transition to clinical practice. Tutors require skills to monitor students learning. Based on these unique findings from the study, recommendations have been made that can serve as a guide for institutions considering a change in their curriculum to CBL. This study contributes to the body of knowledge on transition to a CBL curriculum through its major

findings. This research based on interviews with participants, shows that the CBL classroom is a community of learners where every member must contribute his or her share to achieve the course goals. All members in a CBL classroom are linked together and learning is the outcome of students responding to reactions of the classroom community, that is interactions with peers, and tutors. Based on the participants' experience of community in the CBL classroom, the overall theme that emerged in this study was "trusting each other and trusting the process in a CBL community of learning." Both students and tutors agreed that they needed to trust each other and the CBL process and that they would learn the content they were expected to learn.

This research has shown that despite the initial student discomfort, the CBL students were confident about their learning at the end of their CBL program and that they acquired skills that would be beneficial in their future professional practice. The participants' cultural knowledge about their transition, to CBL, provided in this study, can assist students, educators, and researchers about how students and tutors transition in a CBL program.

References

Agar, M. H. (1996). *The professional strangers. An informal introduction to ethnography.* New York: Academic Press.

Agar, M., & Macdonald, J. (1995). Focus groups and ethnography. *Human Organization, 54(1),* 78-86.

Alan, J. N. (2009). Problem-based learning and medical education forty years on. *Medical Principles and Practice, 18,* 1-9

Alavi,C., Cooke*, M*., & Crove, M. (1997). Becoming a registered nurse. *Nurse Education Today, 17,* 473-480.

Albanese, M. (2000). Problem-based learning: why curricula are likely to show little effect on knowledge and clinical skills. *Medical Education, 34,* 729-738.

Albanese, M. A. (2007). *Understanding medical education. Problem-based learning.* UK: Association for the study of medical education.

Aldiabat, K., & Le Navenec, C. (2011). Clarification of the blurred boundaries between grounded theory and ethnography. Differences and similarities. *Turkish Online Journal of Qualitative Inquiry, 2(3),* 1-13.

Allen, D. E., & White, H. B. (2001). Undergraduate group facilitators to meet the challenges of multiple classroom groups. In J. B. Duch, S. E., Groh, & D. E. Allen (Eds.), *The Power of Problem-Based Learning*. Sterling, VA: Stylus Publishing Company.

Anderson, A. S. (1997). Conversion to problem-based learning in 15 months. In D. Boud & G. Feletti *(*Eds*.). The challenge of problem-based learning Pg. 64-72.* Stirling, USA: Kogan Page Limited.

Anderson, W. L. & Glow, R. H. (2002). Support of a problem-based learning curriculum by basic science faculty. *Medical Education Online, 7(10),* 1-59. Retrieved from http://www. med-ed-onlineorg

Angrosino, M. V. (2007*). Doing cultural anthropology*. Long Grove, Illinois: Waveland Press, INC.

Arroio, A. (2010). Context-based learning: A role for cinema in science education. *Science Education International, 21(3),* 131-143.

Barrows, H. S. (1984). A specific problem-based, self-directed learning method designed to teach medical problem-solving skilss, and enhance knowledge retention and recall. In H.G. Schmidt, & M. L. Devolder (Eds), *Tutorials in problem-based learning: A new direction in teaching the health professions Pp. 16-32*.. Assen, Maastricht: Van Gorcum.

Barrows, H. S. (1996). Problem-based learning in Medicine and Beyond: A brief overview. In L. Wilkerson, & W. H. Gijselaers(Eds), *Bringing problem-based learning to higher education: Theory and practice Pp.3-12*. San francisco,Ca: Jossey-Bass Inc.

Bate, E. & Taylor, D. C. M. (2013). Twelve tips on how to survive PBL as a medical student. *Medical Teacher, 35,* 95-100

Begoray, D. L. & Banister, E. (2005). Using curriculum design principles to improve health education for adolescent girls. *Health Care for Women International, 26,* 295-307.

Bhattacharya, A. (2011). *Paulo Freire. Rousseau of the twentieth century.* Rotterdam, The Netherlands: Sense Publishers.

Biley, F. C. (1999). Creating tension: Undergraduate student nurses' responses to a problem-based learning curriculum. *Nurse Education Today, 19,* 586-591.

Biley, F., & Smith, K. (1998). 'The buck stops here': Accepting responsibility for learning and actions after graduation from a problem-based learning nursing education curriculum. *Journal of Advanced Nursing, 27*(5), 1021-1029.

Britton, J. (1990). Research currents: Second thoughts on learning. In M. Brubacher, R. Payne, & K. Rickett (Eds.), *Perspectives on small group learning: Theory and practice* (pp. 3-11). Oakville, Ontario: Rubicon Publishing Inc.

Bronfenbrenner, U. (1979). *The ecology of human development.* London, England: Harvard University Press.

Carrera, L. T., Tellez, T. E., & D'Ottavio, A. E. (2003). Implementing a problem-based learning curriculum in an Argentinean medical school: Implications for developing countries. *Academic Medicine, 78(8), 798*-801.

Cartier, S., Plante, A. & Tardif, J. (2001). Learning by reading: Description of learning strategies of students involved in a problem-based learning program. *Educational Resources InformationCenter.*Retrievedfromhttp: www.eric.ed.govécontentdeliveryéservleteéERIC(servlet) accno

Chikotas, N. E. (2008). Theoretical links supporting the use of PBL in the education of nurse Practitioner. *Nursing Education Perspectives, 29(6),* 359-362.

College and Association of Registered Nurses of Alberta (CARNA, 2005). *Entry–to-practice competencies for the registered nurses profession (report no)* Retrieved from: http://www.nurses.ab.ca/pdf/entry-to-practice competencies

Coffey, A. & Atkinson, P. (1996). *Making sense of qualitative data.* New Delhi, India: SAGE Publications, Inc

Crux, E. V. & Higginbottom, G. (2013). The use of focused ethnography in nursing research. *Nurse Research, 20(4),* 36-43.

Darkwah, V. A., Ross, C., Williams, B. & Madil, H. (2011). Undergraduate nursing student self-efficacy in patient education in a context-based learning program. *Journal of Nursing Education, 50(10),* 579- 582.

Darvil, A. (2003). Testing the water-problem-based learning and the cultural dimension. *Nurse Education in Practice, 3,* 72-79.

DasGupta, S., Fornari, A., Geer, K., Hahn, L., Kumar, V., Lee, H. J., Rubin, S. & Gold, M. (2006). Medical education for social justice: Paulo Freire revisited. *Journal of Medical Humanities, 27(4),* 245-251.

Dewey, J. (1929). *The Quest for certainty*: A study of the relation of knowledge and action. Minton, New York:

Distler, J. (2008). Problem-based learning: An innovative approach to teaching physical assessment in advanced practice nursing curriculum. *International Journal of Nursing Education Scholarship, 25(1),* 1-12.

Dolmans, D. H. J. M., Gijselaers, W. H., Mouist, J. H. C., DeGrave, W. S., Wolfhagen, I. H. A. P. & Van der Vleuten, C. P. M. (2002). Trends in research on the tutor in PBL: Conclusions and implications for educational practice and research. *Medical Teacher, 24(2),* 173-180.

Dolmans, D. H. J. M., De Grave, W., Wolfhagen, I. H. A. P. & Van der Vleuten, C. P. M. (2005). Problem-based learning: future challenges for educational practice and research. *Medical Education, 39(7),* 732-741.

Dolmans, D. & Schmidt, H. (2010). The problem-based learning process. In H. Van Berkel, A. Scherpbier, H. Hillen & C. van der Vleuten (Eds.), *Lessons from problem-based learning (pp. 12-20),* New York, NY: Oxford University Press.

Dolmans, D. H., Wolfhagen, I. H. & Ginns, P. (2010). Measuring approaches to learning in a problem based learning context. *International Journal Medical Education, 1,* 55-60

Downs, Y. (2010). Transcription tales or let not love's labour be lost. *International Journal of Research & Method in Education, 33(1),* 101-112

Drake, R. L. (2014). A retrospective and prospective look at medical education in the United States: Trends shaping anatomical sciences education. *Journal of Anatomy, 224(3),* 256-60.

Eccles, J. S. (2004). Schools, academic motivation and stage-environment fit. In R. M. Lerner & L. Steinberg (Eds.), *Handbook of Adolescent Psychology. 2nd Ed.* Pp. 125-153. Canada: John Wiley & Sons, Inc.

Eccles, J. S. & Midgley, C. (1989). Stage-environment fit: Developing appropriate classrooms for young adolescents. In C. Ames & R. Ames (Eds.), *Research on motivation in education Vol.3. (pp. 139-186).* San Diego: Academic Press, Inc.

Eccles, J. S. & Roeser, R. W. (2011). Schools as developmental contexts during adolescence. *Journal of Research on Adolescence, 21(1),* 225-241.

Farrow, R. & Norman, G. (2003). The effectiveness of PBL: the debate continues. Is meta-analysis helpful?. *Medical Education, 37(12),* 1131-1132.

Freire, P. (2000). *Pedagogy of the Oppressed*. New York: The Continuum International Publishing Group Inc.

Ftthenakis, W. E. (1998). Family transitions and quality in early childhood education. *European Early Childhood Education Research Journal, 6:1,* 5-17.

Gavin, K. G. (2010). Design of the curriculum for a second-cycle course in civil engineering in the context of the Bologna framework. *European Journal of Engineering Education, 35(2),* 175-185.

Grant, J. (2006). *Principles of curriculum design.* United Kingdom: Association for the study of medical education.

Gringeri, C., Barusch, A. & Cambron, C. (2013). Epistemology in qualitative social work research: A review of published articles, 2008-2010. *National Association of Social Workers.* Pg. 55-63.

Grkovic, I. (2005). Transition of the medical curriculum from classical to integrated problem-based approach and Australian way of keeping academia in medicine. *Croatian Medical Journal*, *46(1),* 16-20.

Guba, E. G. (1990). *The paradigm dialogue.* California, USA: SAGE Publications.

Guba, E. G. & Lincoln, Y. S. (1988). *Effective evaluation.* California, USA : Jossey-Bass Inc. Publishers.

Guba, E. G. & Lincoln, Y. S. (2005). Paradigmatic controversies, contradictions, and emerging confluences. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage Handbook of Qualitative Research 3rd Edition (pp. 191-215).* California, United States of America: Sage Publications.

Gwee, M. C. (2009). Problem-based learning: A strategic learning system design for the education of health care professionals in the 21st century. *Journal of Medicine. Science, 25(5),* 231-239.

Hall, A. (2007). *Vygotsky goes online: Learning design from a sociocultural perspective.* Retrieved from http://www.ro.uow.edu.auécgiéviewécontent

Hansman, A. C. (2001). Context-based adult learning. *New Directions for Adult and Continuing Education, 89,* 43-53. Retrieved from http://www.webct.andrews.eduésedéleadership

Hegelund, A. (2005). Objectivity and subjectivity in the ethnographic method. *Qualitative Health Research, 15(5),* 647-668.

Hein, G.E. (1996). *Constructivist learning theory.* Retrieved from http://www.exploratorium.edu/1F1/resources

Higginbottom, G. M. A., Pillay, J. J. & Boadu, N. Y. (2013). Guidance on performing focused ethnographies with an emphasis on healthcare research. *Qualitative report, 18(17),* 1-16.

Hitchcock, M. A., & Mylona, Z. E. (2000). Teaching faculty to conduct problem-based Learning. *Teaching and Learning in Medicine, 12(1),* 52-57.

Hung, W. (2006). The 3C3R model: A conceptual framework for designing problems in PBL. *The Interdisciplinary Journal of Problem-based learning. 1(1),* 55-77.

Jacelon, C. S. & O'Dell, K. K. (2005). Analyzing qualitative data. *Urology Nursing, 25(3),* 217-20.

Janing, J. (1997). Assessment of a scenario-based approach to facilitating critical thinking among paramedic students. *Prehospital and Disaster Medicine, 12(3),* 215-221.

Johnson, D. W., Johnson, R. T. & Smith, K. A. (2006). *Active learning: Cooperation in the college classroom* (3rd edition). Edina, MN: Interaction Book Company.

Johnson, D. W., Johnson, R. T. & Smith, K. A. (2014). Co-operative learning: Improving university instruction by basing practice on validated theory. *Journal on Excellence in College Teaching, 25 (3 & 4),* 85-118

Johnston, A. K. & Tinning, R. S. (2001). Meeting the challenge of problem-based learning: Developing the facilitators. *Nurse Education Today, 21,* 161-169.

Kamp, R. J. A., Dolmans, D. H. J. M., Van Berkel, H. J. M. & Schmidt, H. G. (2011). Can students adequately evaluate the activities of their peers in PBL? *Medical Teacher, 33, 145-150*.

Kaufman, D. & Holmes, D. B. (1996). Tutoring in problem-based learning: Perceptions of teachers and students. *Medical Education, 30,* 371-377.

Kemp, S. (n.d). *Constructivism and problem-based learning. Learning academy*. Retrieved from http://www.tp.edu.sg/pbl-sandra-joy-kemp.pdf

Knoblauch, H. (2005). Focused ethnography. *Forum: Qualitative Social Research, 6(3),* Art 44.

Knowles, M. S., 1913-1997 (2005). *The adult learner: The definitive classic in adult education and human resource development.* Amsterdam, Boston: Elsevier/Butterworth Heinemann.

Krishnan, S., Gabb, R. & Vale, C. (2011). Learning cultures of problem-based learning teams. *Australasian Journal of Engineering Education, 17(2), 67-78*

Lekalakala-Mokgele, E. (2010). Facilitation in problem-based learning: Experiencing the locus of control. *Nurse Education Today, 30,* 638-642.

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry.* Beverly Hills, CA: Sage.

Lohse, B., & Shafer, K. (2007). Learner perception and performance in a problem-based Clinical nutrition course. *Topics Clinical Nutrition*, *22(2),* 94-107.

Maclean, L. M., Meyer, M. S., & Estable, A. (2004). Improving accuracy of transcripts in qualitative research. *Qualitative Health Research, 14(1),* 115-123

Mayan, M. J. (2001). *An introduction to qualitative methods: A training module for students and professionals.* Edmonton; Alberta: International Institute for Qualitative Methodology.

Meleis, A. I., Sawyer, L. M. , Im, E. Messias, D. K. H. & Schumacher, (2000). Experiencing transitions: An emerging middle-range theory. *Advance Nursing Science, 23(1),* 12-28.

Mennin, S., Gordon, P., Majoor, G. & Shazali, H. (2003). Position paper on problem-based learning. *Education for Health, 16(1),* 98-113.

Miller, S. K. (2003). A comparison of student outcomes following problem-based learning instruction versus traditional lecture learning in a graduate pharmacology course. *Journal of the American Academy of Nurse Practitioners, 15(12),* 550-556.

Morse, J. M., Barrett, M., Mayan, M., Olson, K., & Spiers, J. (2002). Verification strategies for establishing reliability and validity in qualitative research. *International Journal of Qualitative Methods, 1(2),* 1-19.

Munhall, P. L. (2007). *Nursing research a qualitative perspective (4th Edition).* Sudbury, Massachusetts: Jones & Barlett Publishers.

Neufeld, V. R. & Barrows, H. S. (1974). The 'McMaster Philosophy': An approach to medical education. *Journal of Medical Education,* 49, 1040-1050.

Newman, M., Bossche, P. V. D., Gijbels, D., McKendree, J., Roberts, T., Rolfe, I., Smucry, J. & De Virgilio, G. (2004). Responses to the pilot systematic review of problem-based learning. *Medical Education, 38(9),* 921-926.

Office for standards in education (Ofsted) (2004). *Transition from the reception year to year 1. An evaluation by HMI.* Retrieved from http:www.ofsted.gov.uk

Orey, M. (2001). Information processing. In M. Orey(Ed.), *Emerging perspectives on learning, teaching, and technology.* Retrieved from http://projects.coe.uga.edu/epitt/index.php?

Ornstein, A. C. & Hunkins, F. P. (2004). *Curriculum foundations, principles, and issues (4th Ed.)* Boston, New York: Pearson Education, Inc.

Patrick, H. M., Huges, C. S., Toohey, S. M. & Dowton, S. B. (2006). An innovative outcomes-based medical education program built on adult learning principles. *Medical Teacher, 28(6),* 527-534

Pijl-Zieber, E.M. (2006). *History, philosophy and criticisms of problem based learning in adult education.* Retrieved from http://people. uleth.ca/mem.pilj/Pijl-Zieber/Em-pijtPijl-Zieber

Plato's shorter ethical works. (n.d.). *In Stanford encyclopedia of philosophy* (2010 ed.).Retrieved from http://plato.stanford.edu/entries/plato-ethics-short

Pourshafie, T. & Murray-Harvey, R. (2013). Facilitating problem-based learning in teacher education: getting the challenge right. *Journal of Education for Teaching, 39 (2),* 169-180.

Profetto-McGrath, J. (2005). Critical thinking and evidence-based practice. *Journal of Professional Nursing, 21,* 364-371.

Profetto-McGrath, J., Smith, K. B., Day, R., & Yonge, O. (2004). The questioning skills of tutors and students in a context based baccalaureate nursing program. *Nurse Education Today, 24,* 363 - 372.

Public Health Agency of Canada (2003). *How our programs affect population health*

determinants: A workbook for better planning and accountability. Population Manitoba, Saskatchewan Region: Population and Public Health Branch. Retrieved from http://www.phac-aspc.gc.ca

Rather, M. L. (1994). Schooling for oppression: A critical hermeneutical analysis of the lived experience of the returning RN student. *Journal of Nursing Education, 33(6),* 263-271

Richard, L., & Morse, J. M. (2007). *Readme first for a user guide to qualitative methodology* (2nd ed.) Thousand Oaks, CA: Sage.

Rideout, E. (2000). *Transforming nursing education through Problem-based learning.* Ontario: Jones and Bartlett Publishers.

Roper, J. M. & Shapira, J. (2000). *Ethnography in nursing research.* Thousand Oaks, California: Sage Publications, Inc.

Rowan, C. J., McCourt, C., Bick, D., & Beake, S. (2006). Problem based learning in Midwifery. The teachers' perspective. *Nurse Education Today, 27,* 131-138.

Rowan, C., McCourt, C., & Beake, S. (2009). Midwives' reflections on their educational programme: A traditional or problem-based learning approach? *Midwifery, 25(2),* 213-222.

Salmela-Aro, K. & Tuominen-Soini, (2009). Adolescents' life satisfaction during the transition to post-comprehensive education: Antecedents and consequences. *Journal Happiness Studies (206),* 11, 683-701.

Sanders, D., White, G., Burge, B., Sharp, C., Eames, A., McEune, R., & Grayson, H. (2005). A study of the transition from the Foundation Stage to Key Stage 1. *National Foundation for Educational Research Ltd. Research Report* SSU/2005/FR/013.

Savin-Baden, M. & Major, C. H. (2004). *Foundations of problem-based learning*. New

York, USA: Open University Press.

Schmidt, H. G., Van der Molen, H. T. & Te Winkel, W. W. R. (2009). Constructivist, Problem-based learning does work: A meta-Analysis of curriculum comparisons involving a single medical school. *Educational Psychologist, 44(4),* 227-249.

Schmidt, H. & Moust, J. (2010). Designing problems. In H. Van Berkel, A. Scherpbier, H. Hillen & C. van der Vleuten (Eds.), *Lessons from problem-based learning (pp.31-45),* New York, NY: Oxford University Press.

Schoessler, M., & Waldo, M. (2006). Organizational infrastructure to support development of newly graduated nurses. *Journal for Nurses in Staff Development, 22(6),* 286-293.

Shohel, M. M. C., & Howes, A. J. (2007). Transition from nonformal schools. Learning through Photo elicitation in educational fieldwork in Bangladesh. *Visual Studies, 22(1),* 53-61

Smith, L. & Coleman, V. (2008). Student nurse transition from traditional to problem-based Learning. *Learning in Health and Social Care, 7(2),* 114-123.

Spalding, N. J. & Killett, A. (2010). An evaluation of a problem-based learning experience in the UK. *Occupation Therapy International, 17,* 64-73.

Spencer, A. L. & McNeil, M. (2009). Interdisciplinary curriculum to train internal medicine and obstetrics-gynecology residents in ambulatory women's health: Adapting problem-based learning to residency education. *Journal of Women's Health, 18(9),* 1369-1375.

Speziale, H. J. S. & Carpenter, D. R. (2003). *Qualitative research in nursing. Advancing the humanistic imperative (3rd edition)*. Philadelphia: Lippincott Williams Wilkins

Spradley, J. P. (1979). *The Ethnographic Interview*. New York, United States of America: Holt, Rinehart & Winson.

Spradley, J. P. (1980). *Participant observation*. New York: Holt, Rinehart & Winston.

Socrates. (n. d.). *In Stanford encyclopedia of philosophy* (2009 ed.). Retrieved from http://plato.stanford.edu/entries/socrates

Solomon, P. & Crowe, J. (2001). Perceptions of student peer tutors in a problem-based learning programme. *Medical Teacher, 23 (2),* 181-186

Taylor, D., & Miflin, B. (2008). Problem-based learning: Where are we now? *Medical Teacher,30,* 742-763.

Teunissen, P. W., & Westerman, M. (2011). Opportunity or threat: The ambiguity of the consequences of transitions in medical education. *Medical Education, 45(1),* 51-59.

Tilley, S. A. (2003). Challenging research practices: Turning a critical lens on the work of transcription. *Qualitative Inquiry, 9,* 750-773

Tiwari, A., Lai, P., So, M. & Yuen, K. (2006). A comparison of the effects of problem-based learning and lecturing on the development of students' critical thinking. *Medical Education, 40(6),* 547-554.

Torp, L., & Sage, S. (2002). *Problems as possibilities. Problem-based learning for K-16 education (2nd Ed.).* United States of America: Association for Supervision and Curriculum Development.

Trapper, B. (2006). Integrated problem-based learning in the neuroscience curriculum- the SUNY Downstate experience. *BMC Medical Education, 6(47),* 1-7.

Van Blankenstein, F. M., Dolmans, D. H. J. M., Van der Vleuten, C. P. M. & Schmidt, H. G. (2013). Relevant prior knowledge moderates the effect of elaboration during small group discussion on academic achievement. *Instructional Science, 41,* 729-744. doi:10.1007/s11251-012-9252-3

Vahidi, R. G., Azamian, A. & Valizadeh, S. (2007). Opinions of an Iranian nursing faculty

on barriers to implementing problem-based learning. *Eastern Mediterranean Health Journal, 13(1),* 193-196.

Venken, J. U. D., Valke, M., Maeseneer, J. D., Schuwirth, L. & Derese, A. (2009). Impact on knowledge acquisition of the transition from a conventional to an integrated contextual medical curriculum. *Medical Education, 43,* 704-713.

Vygotsky, L. S. (1978). *Mind in society. The development of higher psychological processes.* London, England: Harvard University Press.

Vygotsky, L. S. (1988). *Thought and language.* London, England: The Massachusetts Institute of Technology (MIT) Press.

Weiss, R. E. (2003). Designing problems to promote higher-order thinking. In D. S. Knowlton & C. Sharp (Eds.), *Problem-Based Learning in the Information Age (pp.25-31)*, San Francisco, California: Wiley Periodicals, Inc., A Wiley Company.

White, C. B. (2007). Smoothing out transitions: How pedagogy influences medical students' achievement of self-regulated learning goals. *Advances in Health Sciences Education, 12,* 279-297

Wilkerson, L., & Gijselaers, W. H. (1996). *Bringing problem-based learning to higher education: Theory and practice.* San Francisco: Jossey-Bass Publishers.

Williams, B. (2004). *The self-directed learning readiness of baccalaureate nursing students' and faculty after one year in a problem-based learning undergraduate nursing program* (Unpublished doctoral dissertation). University of Alberta, Edmonton, Alberta.

Williams, B., & Day, R. (2006). Context based learning. In L. Young (Ed.), *Teaching nursing: Student centred theories, models, and strategies for nurse educators (pp. 221-241).* New

York: Lippincott.

Williams, B., Anderson, M. C., & Day, R. (2007). Undergraduate nursing students' knowledge of and attitudes toward aging: Comparison of context-based learning and a traditional program. *Journal of Nursing Education, 46(3),* 115-120.

Williams, B., Spiers, J., Fisk, A., Richards, L., Gibson, B., Kabotoff, W., McIIwraith, D. & Sculley, A. (2012). The influence of an undergraduate problem/context-based learning program on evolving Professional nursing graduate practice. *Nurse Education Today, 32(4),* 417-421.

Worrell, J. A. (2007). *First year nursing students' adjustment to context-based learning* (Unpublished master's thesis). University of Alberta, Edmonton: Alberta.

Yew, E. H. J. & Schmidt, H. G. (2009). Evidence for constructive, self-regulatory, and Collaborative processes in problem-based learning. *Advances in Health Science Education, 14, 251-273*

Yuan, H., Williams, A. B., & Fan, L. (2007). A systematic review of selected evidence on developing nursing students' critical thinking through problem-Based Learning. *Nurse Education Today*, 28*,* 657-663.

Zhang, W. (2014). Problem based learning in nursing education. Advances in Nursing Retrieved from http://dx.doi.org/10.1155/2014/125707

Appendix A: Letter of Approval from Faculty of Nursing, University of Alberta

Dr. Wendy Duggleby
Vice Dean Faculty of Nursing
Level 3, Edmonton Clinic Health Academy (ECHA)
University of Alberta, Edmonton, AB T6G 1C9

Dear Dr. Duggleby,

My name is Vivian Darkwah and I am PhD student at the Faculty of Nursing. I would like to request a letter of approval from the Faculty of Nursing in order to recruit undergraduate nursing students and tutors to participate in my dissertation research. My supervisors for the PhD are Dr. Bev Williams and Dr. Carolyn Ross. An outline of my study is provided below.

Study title: A Focused ethnography of nursing faculty and student transition to the culture of a Context–based learning curriculum

Purpose of the study: There is not enough documented in the literature on the experience of transition to context-based learning (CBL). The purpose of this study is to learn more about the meaning nursing faculty and students allocate to their transition to the culture of a context-based learning (CBL) curriculum.

Research question:

The broad research question guiding the study is "how do faculty and students experience the transition to a context-based learning curriculum?"

Method: Focused ethnography

Sampling: Undergraduate nursing students (Collaborative and After Degree students) and CBL tutors using purposive and snowball sampling technique.

Data collection: I plan to have two focus groups with faculty and five focus groups with students and each focus group interview will last about one hour. I will also observe five tutorials and examine course documents.

Data analysis: Concurrent data analysis will be used.

Anticipated Result: I hope to acquire a detailed understanding and description of the experience of transition to CBL from student and tutor perspectives. This research will contribute to knowledge on transition to a student-centered curriculum, preparation needed and factors that enhance smooth transition. The findings from the study will be beneficial in curriculum design and preparation of faculty and students to engage in a CBL curriculum.

I thank you in advance for your consideration and letter of support to conduct the study.

Sincerely,

Vivian Darkwah (MN, PhD(c), RN)
104RH Michener Park T6H 4M4 Edmonton AB.
E-mail: vdarkwah@ualberta.ca

Appendix B: Letter of Support from Faculty of Nursing, University of Alberta

Dr. Kaysi Eastlick Kushner,
Associate Dean Undergraduate Programs, Faculty of Nursing
University of Alberta Edmonton AB T6G 1C9

Dear Dr. Kushner,
My name is Vivian Darkwah and I am a PhD student at the Faculty of Nursing. I would like to request a letter of support from the Faculty of Nursing in order to recruit undergraduate nursing students and tutors to participate in my dissertation research. My supervisors for the PhD are Dr. Bev Williams and Dr. Carolyn Ross. An outline of my study is provided below.
Study title: A Focused ethnography of nursing faculty and student transition to the culture of a Context–based learning curriculum
Purpose of the study: There is not enough documented in the literature on the experience of transition to education curriculum such as context-based learning (CBL). The purpose of this study is to learn more about the meaning nursing faculty and students allocate to their transition to the culture of a context-based learning (CBL) curriculum.
Research question:
The broad research question guiding the study is "how do faculty and students experience the transition to a context-based learning curriculum?"
Method: Focused ethnography
Sampling: Undergraduate nursing students (Collaborative and After Degree students) and CBL tutors using purposive and snowball sampling technique.
Data collection: I plan to have two focus groups with faculty and five focus groups with students and each Focus Group interview will last about one hour. I will also observe five tutorials and examine course documents.
Data analysis: Concurrent data analysis will be used.
Anticipated Result: I hope to acquire a detailed understanding and description of the experience of transition to CBL from student and tutor perspectives. This research will contribute to knowledge on transition to a student-centered curriculum, preparation needed and factors that enhance smooth transition. The findings from the study will be beneficial in curriculum design and preparation of faculty and students to engage in a CBL curriculum.
I thank you in advance for your consideration and letter of support to conduct the study.

Sincerely,

Vivian Darkwah (MN, PhD(c), RN)
104RH Michener Park T6H 4M4, Edmonton, AB.
E-mail: vdarkwah@ualberta.ca

Appendix C: Letter of Information: Students

Research Project: A Focused ethnography of nursing faculty and student transition to the culture of a Context–based learning curriculum.

Principal Investigator:

Vivian Darkwah, MN, PhD(c), RN
Faculty of Nursing
4- ECHA
E-mail: vdarkwah@ualberta.ca

Co-Investigators:

Dr. Bev Williams, PhD, RN
Faculty of Nursing
4- 213 ECHA
beverly.williams@ualberta.ca

Dr. Carolyn Ross, PhD, RN
Faculty of Nursing
4- 276 ECHA
carolyn.ross@ualberta.ca

Introduction

My name is Vivian Darkwah and I am a PhD student in the Faculty of Nursing, University of Alberta. I have worked as a Lecturer at the University of Ghana since 2006 and am interested in CBL. I am inviting you to be involved in my study if you are a first -, second -, or third - year Collaborative or After Degree nursing student.

Purpose

The purpose of this study is to learn more about the meaning nursing faculty and students allocate to their transition to the culture of a context-based learning (CBL) curriculum.

Procedure

If you decide to take part in the study you will be involved in one focus group interview with the possibility of a Follow-up interview. The focus group will take about 60 minutes and will occur in a conference room at the Faculty of Nursing (FON) at a convenient time agreed upon by the participant on two different days of the week. If you decide to participate in this study, you will be asked to sign a consent form. The focus group interview will be recorded and transcribed. A summary of the findings will be shared with all participants to ensure that their experiences have been accurately represented. Participation is voluntary and will not affect your grade as a student. You are free to withdraw at any time without penalty.

Possible Benefits

Participants may not benefit directly from the study. However, findings will contribute to knowledge about how best to prepare tutors and students for making the transition from a traditional to a CBL program.

Risks

There are no anticipated risks associated with being in the study.

Confidentiality

Only the research team will have access to the data which will be reported as group data. You will be given a pseudonym during the study and you will not be identified in any publication or presentation. Full confidentiality of focus group conversations cannot be guaranteed because other participants will know what you have mentioned. The data will be kept in a locked cabinet for five years in the Faculty of Nursing and will be destroyed after five years.

Use of Data

The data collected from this study will be analyzed and summarized into a dissertation that will form a partial fulfillment for the award of a doctoral degree. The dissertation will be made available to the University community and the public through the University of Alberta library. In addition, the results from the study will be presented at conferences and published as papers. Participants will not be identified in the final work because data will be reported as a group data.

Contact

If you would like to participate or receive additional information on the study please email me, Vivian Darkwah @ vdarkwah@ualberta.ca. I will respond to your email to answer any question or concern you may have. Information about your right as a participant in the study and ethical conduct of the study can be obtained from the Research Ethics Office at 780-492-2615.

Appendix D: Letter of Information: Tutors

Research Project: A Focused ethnography of nursing faculty and student transition to the culture of a Context–based learning curriculum

Principal Investigator: **Co-Investigators:**

Vivian Darkwah, MN, PhD(c), RN Dr. Bev Williams, PhD, RN Dr. Carolyn Ross, PhD, RN
Faculty of Nursing Faculty of Nursing Faculty of Nursing
4- ECHA 4- 213 ECHA 4- 276 ECHA
E-mail: vdarkwah@ualberta.ca beverly.williams@ualberta.ca carolyn.ross@ualberta.ca

Introduction

My name is Vivian Darkwah and I am a PhD student in the Faculty of Nursing, University of Alberta. I have worked as a Lecturer at the University of Ghana since 2006 and am interested in context-based learning (CBL). I am inviting you to be involved in my study if you are a tutor at the Faculty of Nursing (FON) and use CBL to guide students learning.

Purpose

The purpose of this study is to learn more about the meaning nursing faculty and students allocate to their transition to the culture of a context-based learning (CBL) curriculum.

Procedure

If you decide to take part in the study you will be involved in one focus group interview with the possibility of a Follow- up interview. The focus group will take about 60 minutes and will occur in a conference room at the Faculty of Nursing (FON) at convenient time agreed by the participant on two different days of the week. If you decide to participate in this study, you will be asked to sign a consent form. The focus group interview will be recorded and transcribed. A summary of the findings will be shared with all participants to ensure that their experiences have been accurately represented. Participation is voluntary and will not affect your position as a faculty member. You are free to withdraw at any time without penalty.

Possible Benefits

Participants may not benefit directly from the study. However, findings will contribute to knowledge about how best to prepare tutors and students for making the transition from a traditional to a CBL program

Risks

There are no anticipated risks associated with being in the study.

Confidentiality

Only the research team will have access to the data which will be reported as group data. You will be given a pseudonym during the study and you will not be identified in any publication or presentation. Full confidentiality of focus group conversations cannot be guaranteed because other participants will know what you have mentioned. The data will be kept in a locked cabinet for five years in the Faculty of Nursing and will be destroyed after five years.

Use of Data

The data collected from this study will be analyzed and summarized into a dissertation that will form a partial fulfillment for the award of a doctoral degree. The dissertation will be made available to the University community and the public through the University of Alberta library. In addition, the results from the study will be presented at conferences and published as papers. Participants will not be identified in the final work because data will be reported as a group data.

Contact

If you would like to participate or receive additional information on the study please email me,

Vivian Darkwah @ vdarkwah@ualberta.ca. I will respond to your email to answer any question or concern you may have. Information about your right as a participant in the study and ethical conduct of the study can be obtained from the Research Ethics Office at 780- 492-2615

Appendix E: Recruitment Poster

FACULTY OF NURSING
UNIVERSITY OF ALBERTA

Nursing Students and Faculty Needed for an Innovative Nursing Research Project

This study explores the transition of faculty and students to the culture of a CBL program

If you are currently a faculty member, 1st, 2nd, 3rd year Collaborative or After Degree nursing student and have experienced transition to the CBL program, you are invited to participate in one hour focus group in the ECHA building.

If you would like to be part of this study, please contact Vivian Darkwah:
Email: vdarkwah@ualberta.ca

Appendix F: Interview Guide: Students

These questions will be used to guide the first focus group interview. Other interviews will be conducted to obtain additional information on areas that are not clear.

1. Let's talk about your experience in high school or previous degree. Can you tell me what approaches to teaching were used?

2. How much did you know about CBL before you came to the program?

- Sources of information about CBL
  - Program info?
  - Website info?
  - Other?

3. Let's talk about your first reaction to your first experience with CBL.

- Has that changed?
- If so, how has it changed?

4. Tell me about your experience adjusting to CBL.

- Least difficult
- Most difficult
- How did you overcome the difficulty?
- Transition culture (activities that emerged during transition)

5. How well do you think the CBL curriculum has helped you to integrate theory (tutorial) and lab (skills) to practice (clinical)?

- Progression in development as a nurse

Appendix G: Interview Guide: Tutors

These questions will be used to guide the first focus group interview. Other interviews will be conducted to obtain additional information on areas that are not clear.

- What approaches to teaching were you familiar with before you came to the FON?
- How much did you know about CBL before you started teaching at the FON?
- Sources of information about CBL
- Attended the orientation session
- Comment on the value of the orientation sessions
- Tell me about your experience with adjusting to CBL.
- Least difficult
- Most difficult
- How did you overcome the difficulty?
- What helped you adjust to CBL?

    Transition culture (activities that emerged during transition)

- How is facilitating in the CBL program different from lecturing in a traditional curriculum?

Appendix H: Tutors' and Students' Consent Form to Participate in the Study

Title of project: A focused ethnography of nursing faculty and student transition to the culture of a Context–based learning curriculum

Investigator: **Supervisors**

Vivian Darkwah, MN, PhD(c), RN Bev Williams, PhD, RN Carolyn Ross, PhD, RN
E-mail: vdarkwah@ualberta.ca beverly.williams@ualberta.ca carolyn.ross@ualberta.ca

Description of the project: The focus group interview will last for about 60 minutes. Each participant may be required to participate in at least two focus group interviews and will be audio-taped.

Do you understand that you have been asked to be in a research study	Yes	No
Have you received and read a copy of the attached information sheet?	Yes	No
Have you had an opportunity to ask questions and discuss the study?	Yes	No
Do you understand that you are free to refuse to participate or withdraw from the study at any time? You do not have to give a reason. Refusal to participate in the study will not affect your status/grade as a tutor or student in the Faculty of Nursing.	Yes	No
Has the issue of confidentiality been explained to you?	Yes	No
Do you consent to be interviewed?	Yes	No
Do you consent to being audio-taped?	Yes	No
Do you consent to being observed in the classroom while tutoring or being tutored?	Yes	No
Do you agree to have your data reviewed at a later date?	Yes	No
Do you give permission to me to revisit your data for future analysis pending Ethics approval or review?	Yes	No
Copy of consent form to be left with participant		

This study was explained to me by: _____

I have read and understood the above information, and agreed to participate in this study.

_____ _____

Signature of Participant: Print Name

Date _____

I believe that the person signing this consent form understands what is involved in the study and voluntarily agrees to participate.

_____ _____

Signature of Investigator Print Name

Date _____

Appendix I: Students' Group Consent Form for Observation
Title of project: A Focused ethnography of nursing faculty and student transition to the culture of a Context–based learning curriculum

Investigator: **Supervisors**

Vivian Darkwah, MN, PhD (c), RN Bev Williams, PhD, RN Carolyn Ross, PhD, RN
E-mail: vdarkwah@ualberta.ca beverly.williams@ualberta.ca carolyn.ross@ualberta.ca

Purpose
The purpose of this study is to learn more about the meaning nursing faculty and students allocate to their transition to the culture of a context-based learning (CBL) curriculum.
If you decide to take part in the study you will be observed as a group during the CBL tutorial session. The researcher will be observing the group process and the CBL process. Participation in the study is voluntary and it will not affect your grade as a student if you decide not to participate. If you decide to participate in the study, you will be asked to sign a group consent form. You are free to withdraw at any time without penalty.

Possible Benefits
Participants may not benefit directly from the study. However, the findings will contribute to knowledge about how best to prepare tutors and students for making the transition from a traditional to a CBL program.

Risks
There are no anticipated risks associated with being in the study.

Confidentiality
Only the research team will have access to the data which will be reported as group data. You will be given a pseudonym during the study and you will not be identified in any publication or presentation. Full confidentiality of the focus group cannot be guaranteed because other participants will know what you have mentioned. The data will be kept in a locked cabinet for five years in the Faculty of Nursing and will be destroyed after five years.

Use of Data
The data collected from this study will be analyzed and summarized into a dissertation that will form a partial fulfillment for the award of doctoral degree. The dissertation will be made available to the University community and the public through the University of Alberta library. In addition, the results from the study will be presented at conferences and published as papers. Participants will not be identified in the final work because data will be reported as group data.

Contact
If you would like to participate or receive additional information on the study, please email me, Vivian Darkwah @ vdarkwah@ualberta.ca. I will respond to your email to answer any question or concern you may have. Information about your right as a participant in the study and ethical conduct of the study can be obtained from the Research Ethics Office at 780 492 -2615

Group Consent Form

Student's Name	Signature

Appendix J: Tutor Consent Form to Observe Tutorial
Title of project: A Focused ethnography of nursing faculty and student transition to the culture of a Context–based learning curriculum

Investigator: **Supervisors**

Vivian Darkwah, MN, PhD (c), RN Bev Williams, PhD, RN Carolyn Ross, PhD, RN
E-mail: vdarkwah@ualberta.ca beverly.williams@ualberta.ca carolyn.ross@ualberta.ca

Purpose
The purpose of this study is to learn more about the meaning nursing faculty and students allocate to their transition to the culture of a context-based learning (CBL) curriculum.

Procedure
If you decide to participate in the study, the investigator will observe you along with your tutorial group during the CBL tutorial session. The researcher will be observing the group process and the CBL process. Participation in the study is voluntary and it will not affect your position with the Faculty of Nursing if you decide not to participate. If you decide to participate in this study, you will be asked to sign a consent form. You are free to withdraw at any time without penalty.

Possible Benefits
Participants may not benefit directly from the study. However, the findings will contribute to knowledge about how best to prepare tutors and students for making the transition from a traditional to a CBL program

Risks
There are no anticipated risks associated with being in the study.

Confidentiality
Only the research team will have access to the data. You will be given a pseudonym during the study and you will not be identified in any publication or presentation. Full confidentiality of the focus group cannot be guaranteed because other participants will know what you have mentioned. The data will be kept in a locked cabinet for five years in the Faculty of Nursing and will be destroyed after five years.

Use of Data
The data collected from this study will be analyzed and summarized into a dissertation that will form a partial fulfillment for the award of doctoral degree. The dissertation will be made available to the University community and the public through the University of Alberta library. In addition, the results from the study will be presented in conferences and published as papers. Participants will not be identified in the final work because data will be reported as a group data.

Contact
If you would like to participate or receive additional information on the study please email me, Vivian Darkwah @ vdarkwah@ualberta.ca. I will respond your email to answer any question or concern you may have. Information about your right as a participant in the study and ethical conduct of the study can be obtained from the Research Ethics Office at 780 492 -2615.

Appendix K
Group Agreement for Maintaining Confidentiality (Students)

This form is intended to further ensure confidentiality of data obtained during the research study on the transition of faculty and students to a context-based learning curriculum.

Do you understand that this focus group interview will be recorded on audio-tape? Yes No

Do you agree not to talk about information relating to this study or interview with anyone outside of your fellow focus group members and the researcher? Yes No

This study was explained to me by: _____

I agree to take part in this study.

_____ _____ _____
Signature of Research Participant Date Witness

_____ _____
Print Name Print Name

I believe that the person signing this form understands what is involved in the study and voluntarily agrees to participate.

_____ _____
Signature of Researcher or Designee Date

Appendix L
Group Agreement for Maintaining Confidentiality (Tutors)

This form is intended to further ensure confidentiality of data obtained during the research study on the transition of faculty and students to a context-based learning curriculum.

Do you understand that this focus group interview will be recorded on audiotape? Yes No

Do you agree not to talk about information relating to this study or interview with anyone outside of your fellow focus group members and the researcher? Yes No

This study was explained to me by: _____

I agree to take part in this study.

_____ _____ _____
Signature of Research Participant Date Witness

_____ _____
Print Name Print Name

I believe that the person signing this form understands what is involved in the study and voluntarily agrees to participate.

_____ _____
Signature of Researcher or Designee Date

Appendix M
Research Assistant (RA) Agreement for Maintaining Confidentiality

This form is intended to further ensure confidentiality of data obtained during the research study on the transition of faculty and students to a context-based learning curriculum.

Consent: This is to certify that I, _____, agree to maintain the confidentiality of the data to which I have access through focus group interviews in the above study. I will not discuss the information with anyone other than the research team, I will not reveal the name of any participants, I will not play tapes of the data in the hearing of others apart from the research team and I will not retain in my possession copies of the data or other information about study participants.

Signature: _____

Date: _____

Witness: _____

Appendix N: Demographic Data Form: Students

1. Code: _____
2. Gender: Male _____ Female _____
3. Education other than nursing: _____
   (Please list if applicable).
4. Year in program:
5. Briefly describe how you have been prepared for the CBL program

   ---

Appendix O: Demographic Data Form: Tutors

1. Code: _____
2. Gender: Male _____ Female _____
3. Nursing Education (check highest level): Diploma _____
   Baccalaureate _____ Master _____ Other _____
4. Education other than nursing: _____(please list if applicable).
5. Total years of nursing education:

   Total years as a faculty member:
   _____

6. Give a brief description of work experience in CBL program:

7. Briefly describe how you have been prepared for the role of facilitator in the CBL program.
   _____
   _____

Appendix P: Guideline for Observation in CBL Sessions

During the observation of CBL sessions, the researcher observed the tutors, students and CBL process.

Tutors	**Students**	**CBL Process**
Facilitators' expectation Tutors' involvement from year to year	Kinds of students involved (Collaborative or After Degree students)	Number of students per group
Questioning skills Questions related to content for beginning students	Use of physical space Students' interaction with each other and tutor	CBL is actually taking place Stages of CBL
Promotion of critical thinking skills/clinical judgment	appearance roles	Group dynamics/function
Provision of feedback	Students' questioning skills and discussion Generation of learning issues	Classroom community
	Research Learning	