UNIVERSITÉ DE SHERBROOKE

Un examen des récits de réflexions d'étudiants inscrits dans un programme pour diplôme en soins infirmiers: une étude
A Review of the Reflective Narratives of Students enrolled in a Diploma Nursing Program: a descriptive study

Par
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SUMMARY

The state of today’s health care system requires nurses who possess both solid theoretical knowledge and clinical expertise to care for patients with multiple health and social problems. Today’s nurses need to make clinical decisions rapidly and independently while still maintaining a caring and compassionate approach. The ability to engage in reflective thinking and practice is essential in the nursing profession; it is important for nurses to continually evaluate their clinical knowledge and abilities in order to keep up with the innovations in medical treatment and nursing care.

The expectation of nurse managers and administrators is that the novice nurses that are on staff already possess the ability to make clinical decisions. However Benner (as cited in Forneris & Peden-McAlpine, 2007, p.418) indicates that it takes novice nurses at least two to three years to develop their ability to think critically. This time frame is quite lengthy given the demands on nurses and the present state of our health care.

Forneris and Peden-McAlpine (2007) indicate that there is a strong link between the ability to engage in critical thinking and reflective practice. In order for students to learn how to examine a clinical situation with a critical perspective, nurse educators should be implementing learning activities with an emphasis on reflection and reflective thinking. Burnard (1995) indicates that many educators understand the importance of reflective practice however many educators also report that they do not
feel that they have adequate pedagogical knowledge to integrate reflection in their teaching.

This research study with an emphasis on reflection, focused on identifying and describing thoughts and ideas that students in a three-year diploma nursing program have about clinical practice issues. The study describes whether a connection exists between the amount of clinical experience and the clinical issues that students think about. The study also examined the levels of thinking that nursing students in a three-year diploma nursing program engage in and whether there is a relationship between clinical experience and the level of thinking that are used by the nursing students.

A convenience sample of 19 nursing students consisting of eleven Semester One and eight Semester Five students enrolled in a three-year nursing diploma program was used. In order to identify the issues that the nursing students think on, the students' weekly reflective journals were collected and read to identify clinical issues. Using an inductive approach to content analysis, the journals were examined and recurrent themes were identified. In order to describe the levels of thinking that nursing students engaged in while writing about their clinical experiences, a three level coding schema, based on Benjamin Bloom's taxonomy of the cognitive domain and developed by Cuppernull, Marquez, Confessore and Greenberg (as cited in Plack, Driscoll, Marquez, Cuppernull, Maring, and Greenberg, 2007, p.287) was used to categorize the students' reflective journals.

The study found that students from both groups (Semester One and Semester Five) reflected on the same clinical practice issues; however, there was a difference in the perspective which the students viewed their experiences. For example, the reflective journals of the Semester One students emphasized their own abilities and skills whereas the journals of the Semester Five students focused on themes related to the patient.
A second finding from the study is that both Semester One and Semester Five students engaged in all three levels of thinking; that is remembering and understanding (level one), analysis and application (level two) and evaluation and synthesis (level three). A third finding demonstrated that a majority of the students in Semester One engaged in the most basic level of thinking (level one) and Semester Five students engaged in higher order thinking (level three) as defined by Cuppennull et al.

The findings from this research revealed that clinical experience does play a factor in the how nursing students perceive the events that have occurred in the clinical placements as well as the level of thinking that they engage in to reflect on those events. This result is significant for nurse educators as it indicates that students, as they advance further into the college-level nursing program, engage in higher order thinking. It is essential for nurse educators to develop learning strategies with an emphasis on evaluation and synthesis, higher order thinking skills, which, in turn, will help to foster critical thinking.
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RÉSUMÉ

L'état du système de santé actuel requiert que les infirmières possèdent un sens théorique solide ainsi qu'une expertise clinique pour s'occuper des patients avec de multiples problèmes de santé et difficultés sociales. L'infirmière d'aujourd'hui a besoin de prendre des décisions cliniques de façon indépendante en plus de maintenir une approche empathique. La capacité de s'engager dans la pensée réflexive est essentielle à la profession d'infirmière; il est important pour les infirmières d'évaluer continuellement leurs connaissances cliniques et leur capacité afin de suivre les progrès de la médecine et des soins infirmiers qui se font en matière de santé.

Les infirmières gestionnaires et les administrateurs s'attendent à ce que les infirmières débutantes qui sont à leur emploi possèdent déjà la capacité de prendre des décisions cliniques. Cependant, Benner (cité dans Forneris & Peden-McAlpine, 2007, p.418) indique que cela prend aux infirmières débutantes au moins 2 à 3 ans pour développer leur capacité à penser de façon critique. Ce délai est assez long compte tenu des exigences demandées aux sur les infirmières et l'état actuel de notre système de santé.

Forneris & Peden-McAlpine (2007) indique qu'il existe un lien étroit entre la capacité de s'engager dans une réflexion critique et la pratique réflexive. Pour que les élèves apprennent à examiner une situation clinique avec une perspective critique, les éducateurs en sciences infirmières devraient mettre en œuvre des activités d'apprentissage en mettant l'accent sur la réflexion et la pensée réflexive. Burnard
(1995) indique que de nombreux éducateurs comprennent l'importance de la pratique réflexive mais ceux-ci signalent également qu'ils ne croient pas qu'ils possèdent une connaissance pédagogique adéquate pour intégrer la réflexion dans leur enseignement.

Cette étude, avec une emphase sur la réflexion, est axée sur l'identification et la description des pensées et des idées que les étudiants, dans un programme de trois ans, diplôme en soins infirmiers, ont sur les questions de pratique clinique. L'étude décrit s'il existe un lien entre la quantité d'expérience clinique et les questions cliniques que les étudiants se posent. L'étude examine aussi les niveaux de pensée qu'utilisent les étudiants en soins infirmiers, dans un programme de trois ans, diplôme en soins infirmiers et s'il y a une relation entre l'expérience clinique et le niveau de pensée qui sont utilisés par les étudiants en soins infirmiers.

Un échantillon de 19 étudiants en soins infirmiers composé de onze étudiants, Semestre Un et huit étudiants, Semestre Cinq, inscrits à un programme de trois ans, diplôme en soins infirmiers, a été utilisé. Afin d'identifier les problèmes que les étudiants en soins infirmiers ont, les journaux de réflexion hebdomadaires des étudiants ont été recueillis et lus pour identifier les problèmes cliniques. En utilisant une approche inductive de l'analyse de contenu, les journaux de réflexion ont été examinés et les thèmes récurrents ont été identifiés. Afin de décrire les niveaux de pensée que les étudiants en soins infirmiers utilisent lors de l'écriture de leurs expériences cliniques, un schéma à trois niveaux de codage, basé sur la taxonomie de Benjamin Bloom du domaine cognitif et développé par Cuppennull, Marquez, Confessore et Greenberg (cité dans Plack, Driscoll, Marquez, Cuppennull, Maring, and Greenberg, 2007, p.287), a été utilisé pour classer les journaux de réflexion des étudiants.
L'étude a révélé que les élèves des deux groupes (Semestre Un et Semestre Cinq) ont réfléchi sur les mêmes questions de pratique clinique mais il y a une différence dans la perception des élèves quant à leurs expériences. Par exemple, les journaux de réflexion des élèves du Semestre Un mettent l'accent sur leurs propres aptitudes et compétences, alors que les journaux des élèves du Semestre Cinq se concentrent sur des thèmes liés au patient.

Une deuxième constatation de l'étude est que les élèves du Semestre Un et les élèves du Semestre Cinq se sont engagés dans les trois niveaux de la pensée; c'est-à-dire la reconnaissance et la compréhension (niveau un), l'analyse et l'application (niveau deux) et l'évaluation et la synthèse (niveau trois). Une troisième constatation a démontré que la majorité des étudiants du premier semestre s'engagent dans le niveau le plus élémentaire de la pensée (niveau un) et les étudiants du Semestre 5 se sont engagés dans la réflexion d'ordre supérieur (niveau trois), tel que défini par Cuppernull et al.

Les résultats de cette recherche ont révélé que l'expérience clinique joue un rôle dans la façon dont les étudiants en soins infirmiers perçoivent les événements qui se sont produits dans les stages cliniques ainsi que le niveau de réflexion qu'ils utilisent pour réfléchir sur ces événements. Ce résultat est important pour les éducateurs en sciences infirmières, car il indique que les élèves, à mesure qu'ils avancent plus loin dans le programme de soins infirmiers de niveau collégial, s'engagent dans une réflexion d'ordre supérieur. Il est essentiel pour les infirmières enseignantes de développer des stratégies d'apprentissage en mettant l'accent sur l'évaluation et la synthèse, l'augmentation des compétences de raisonnement, qui, à son tour, contribuera à favoriser la pensée critique.

L'étude a révélé que les élèves des deux groupes (Semestre Un et Semestre Cinq) ont réfléchi sur les mêmes questions de pratique clinique mais il y a une différence dans la perception des élèves quant à leurs expériences. Par exemple, les
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Les résultats de cette recherche ont révélé que l'expérience clinique joue un rôle dans la façon dont les étudiants en soins infirmiers perçoivent les événements qui se sont produits dans les stages cliniques ainsi que le niveau de réflexion qu’ils utilisent pour réfléchir sur ces événements. Ce résultat est important pour les éducateurs en sciences infirmières, car il indique que les élèves, à mesure qu’ils avancent plus loin dans le programme de soins infirmiers de niveau collégial, s'engagent dans une réflexion d'ordre supérieur. Il est essentiel pour les infirmières enseignantes de développer des stratégies d'apprentissage en mettant l'accent sur l'évaluation et la synthèse, l'augmentation des compétences de raisonnement, qui, à son tour, contribuera à favoriser la pensée critique.
DEDICATION

To my husband, Michael, for his love, encouragement and support during the development and writing of this research paper.

To my two children, Diego Michael and Domenico Jai, for their patience when “mommy” had to “finish her homework”.

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INTRODUCTION

As patient illnesses and treatment regimens become more complex and resources, both financial and human, become a scarce commodity, working in the health care field can be a challenge. It is vital that nurses working in today’s health care possess solid assessment and clinical decision-making skills. Nurse managers and administrators expect that the novice nurses they have on staff already possess the ability to make clinical decisions; this expectation is contrary to the actual reality. According to Benner (as cited in Forneris & Peden-McAlpine, 2007, p.418), novice nurses develop their ability to think critically over a two-three year period, a time frame that is quite lengthy given the present state of our health care.

Although a consistent definition of reflection is lacking in the literature, many researchers have acknowledged that reflection and reflective practice is an active way of thinking. Kuiper and Pesut (2004) define reflection as a “careful consideration and examination of issues of concern related to an experience” (Kuiper & Pesut, 2004, p. 384) while Kim (1999) writes that reflection is a “process of consciously examining what has occurred in terms of thoughts, feelings and actions against underlying beliefs, assumptions and knowledge” (Kim, 1999, p. 1207).

Reflection in the nursing education curriculum has always been present; possibly because nursing faculty recognizes the importance and the necessity of reflection in the development of critical thinking and clinical decision making skills. However there have been differences in opinion on the use and effectiveness of reflection in the nursing education curriculum. There are nurse educators who feel that engaging in reflective practice provides time and opportunity for students to explore their nursing practice, to describe the struggles and/or challenges that they are experiencing or to outline their learning goals and objectives. Other faculty
acknowledges the importance of reflection in professional education but question the need and the challenge in the assessment of the reflective narratives. According to Hargreaves (2003), students will write what they think the teacher would like to hear and read and that “the imperative to do well academically discourages students from engaging in honest and open reflection” (Hargreaves, 2003, p. 196). Others indicate that further research is required to provide “evidence regarding the effectiveness of reflection and reflective practice” within nursing education and that until that time, “caution should be used in its (reflection) implementation” (Carroll, Curtis, Higgins, Nicholl, Redmond & Timmons, 2001, p. 19).

In order to develop critical thinking, it is essential that students move beyond the lower level of thinking to the higher level. Encouraging students to not only describe the issues but to challenge them to develop alternative solutions that integrate their theoretical knowledge with their clinical experiences will foster questioning and thinking; traits essential for nurses working in today’s health environment.

The development of a competent and safe nurse who also demonstrates the ability to think critically and make clinical decisions requires the use of reflection and reflective practice. The literature describes how engaging in reflective practice develops critical thinking. Street (1991) and Driscoll (1994) write that “reflective learning is offered as a way of empowering nurses to adopt a more critical and thoughtful approach to the practice of nursing” (as cited in O’Connor, Hyde & Treacy, 2003, p. 107) while Plack et al (2007) describe reflection as a method which “enables learners to develop critical thinking skills essential to clinical decision making and practice” (Plack et al, 2007, p. 285).
1. CONTEXT OF STUDY

In Quebec, there are two “pathways” that individuals can choose to study nursing. In the first pathway, “2 + 3” Years, students complete a diplôme des études collégiales (DEC) in Health Science and advance to an undergraduate degree in Nursing at the university level. Once students have graduated from university, they are eligible to write the nursing licensing exams. The second route, “3 + 2” Years, has students completing a DEC in Nursing at the CEGEP level and then writing the nursing exams for licensure. Once students have received their license to practice nursing, they have the choice to enter the workforce or continue on to university for an additional two years to obtain their nursing degree. Quebec is the only province in Canada to have two streams of nursing education. The minimum educational requirement into the nursing profession in Quebec is a diploma in nursing from a CEGEP while in the rest of Canada the minimum requirement is a university degree.

The major differences between the two educational paths are in the curriculum. The provincial government mandates the curriculum of the nursing programs at the CEGEP level while universities are able to set their own curriculum. For example, students enrolled in the diploma nursing program conduct their clinical experiences in the hospital setting while the university trained students have an opportunity to conduct clinical experiences in community based clinics. It must be noted, however, that graduates from both streams must meet the minimum standards to practice nursing in Quebec; these standards are determined by the Ordre des Infirmières et Infirmiers du Québec (OIIQ). One of the major responsibilities of the OIIQ is to regulate nursing practice by administering the nursing licensure exams to graduates from nursing programs.

This qualitative research study was conducted at an Anglophone CEGEP in Quebec. A short survey was developed to collect demographic data from the participants. Clinical journals of Semester One and Semester Five nursing students
were used to collect data relevant to the research questions of this study. The journals are a narrative description of the students' clinical experiences and are written after the students spend the day(s) caring for their assigned patients. A content analysis was conducted on the clinical journals to ascertain relevant themes emerging from the journal entries.
CHAPTER ONE: PROBLEM STATEMENT

The nursing profession is one that requires knowledge and abilities from three knowledge domains a) cognitive, b) affective and c) psychomotor. Phaneuf (2007) describes that the discipline of nursing is a challenge to teach because of the diversity in the knowledge domains. Nursing educators struggle with this challenge.

The state of today’s health care system requires nurses who are independent thinkers and possess both solid theoretical knowledge and clinical expertise to care for patients with complex health and social problems while at the same time demonstrating empathy and caring. The ability to engage in reflective practice is inherent in the nursing profession. Nurses are continuously evaluating their clinical knowledge and practice in order to keep up with the innovations and new technology that are emerging in health care.

In some provinces, reflective journal writing is one method that nurses use to maintain the quality in their clinical practice. Matthew-Maich, Brown & Royle (2000) describe how the College of Nurses of Ontario (CNO) introduced the Professional Profile as one component in the Quality Assurance program. The CNO is the governing body for registered nurses (RN) and registered practical nurses (RPN) in Ontario. The College sets requirements for entry into the profession, establishes and enforces standards of nursing practice and assures the quality of practice of the profession and the continuing competency of nurses (www.cno.org). The participation in reflective practice is a requirement for all RNs in Ontario. Interestingly, the OIIQ, the Quebec version of the CNO, does not require an accounting of the nurse’s participation in reflective practice.
Burnard (1995) indicates that although many educators understand that reflective practice in nursing is of extreme importance, many report that they do not have adequate pedagogical knowledge on how to integrate reflection in their clinical teaching. Smith (1998) discusses several research studies whose primary objective is to explore the nature of reflection and reflective practice in education. The studies are important as they show that engaging in reflection will have a "key influence" on the quality of nursing care (Smith, 1998, p. 892). Most of the studies agree, however, that prior to implementing reflective learning activities, it is important for nurse educators to understand the concept of reflection in nursing education.

To implement effective learning activities with a focus on reflection, nurse educators in college-level nursing programs need to understand the relevant practice issues and concerns that nursing students have about the clinical experience. An examination of reflective thinking practices at the college level may increase knowledge with respect to this population and may help nurse educators at the college level develop and implement appropriate learning strategies that encourage the reflective process. It may also emphasize the importance and usefulness of reflective thought in clinical practice.

This research study describes the clinical practice issues that students' in a three-year diploma nursing program reflect on and whether there is a link between the amount of clinical experience and the clinical issues that students think about. The study also examines the level of thinking that students in a diploma nursing program engage in and whether the amount of clinical experience influences the level of thinking that diploma-level students use. This research paper adds to the small but growing body of research on reflective practice in nursing education.
CHAPTER TWO: CONCEPTUAL FRAMEWORK

1. INTRODUCTION

Social constructivism is a philosophy of learning and teaching that has roots in psychology and education. In the constructivist framework, students play an active role in their learning by creating new knowledge within themselves which is meaningful and relevant to their own learning situation. The educators’ role is not to provide the answers but to guide and point students in the proper direction.

In order to develop this new knowledge, students should be able to understand the important concepts at a deeper level. Learners must be able to examine, analyze and evaluate an issue from multiple perspectives before creating a new body of knowledge or way of thinking. The notion of different levels of thinking originates from the work of Benjamin Bloom who, along with a team of educators, developed a hierarchical classification system to assess students’ level of understanding.

2. BENJAMIN S. BLOOM’S TAXONOMY

Bloom and his colleagues developed taxonomies for three learning areas: cognitive, affective and psychomotor. The cognitive component emphasizes knowledge, critical thinking and intellectual skills; the affective domain focuses on learners’ values and attitudes while the psychomotor area concentrates on the acquisition of skills and physical abilities. Since reflective thinking is a cognitive process, the focus in this study will be on the cognitive domain of learning.
Within the cognitive domain, Bloom and his team developed six hierarchical levels of thinking and learning: knowledge, comprehension, application, analysis, synthesis and evaluation. A short description of each level within the taxonomy for the cognitive domain follows:

1. Knowledge: remembering previously learned information, such as facts, terms, procedures and principles;
2. Comprehension: grasping the meaning of information by putting it into one’s own words, drawing conclusions or stating implications.
3. Application: applying knowledge to actual situations.
4. Analysis: breaking down objects or ideas into simpler parts and seeing how the parts relate and are organized.
5. Synthesis: rearranging component ideas into a new whole.
6. Evaluation: making judgments based on internal evidence or external criteria.
   (Snowman & Biehler, 2003, p. 341-342)

Although critics agree that the six levels of thinking exist, some question the order of the last two levels, synthesis and evaluation, while others feel that the last three levels (analysis, synthesis and evaluation) are not hierarchical but rather are parallel with one another.

Forehand (2010) writes that a former student of Bloom, Lorin Anderson, made several significant changes to the original cognitive domain taxonomy. Anderson revised the names from nouns to verbs; for example the third level of thinking, “application”, was altered to “applying”. She also modified the first level from “knowledge” to “remembering” and the fifth level from “synthesis” to “creating”. Anderson also rearranged the order between the fifth and sixth level with “evaluating” moving in fifth position, before “creating/synthesis”. Krathwohl and
Anderson (as cited in Forehand, 2010) revised Bloom’s taxonomy where the last three levels are not hierarchical but are parallel.

Snowman and Bichler (2003) describe Bloom’s taxonomy as “hierarchical” because learners are required to have achieved the previous level of understanding in order to master the current level. In other words, knowledge of relevant facts is important to understand the issue at hand and thorough comprehension of the concepts is essential before applying them to new situations.

2.1 Bloom’s Taxonomy and Its Relation to Constructivism

Interestingly, the modification of “synthesis” into “creating” demonstrates the link between Bloom’s taxonomy and the constructivist perspective. Constructivist principles are embedded in the higher-order levels of analyzing, evaluating and creating. Not only are the levels of the taxonomy learner-centered, they denote active learning and participation from the student. Learners use knowledge from the lower-order levels to develop or create new knowledge; for example, nursing students learn the general principles of how to assess the respiratory system by inspecting and observing the respiratory rate and rhythm, palpating (feeling) the area for the presence of lumps and auscultation (listening) to the lungs. New knowledge is developed when the nursing student assesses (collects data) from a specific client, analyzes the meaning of the data in relation to the client and constructs a new client perspective.
3. CONSTRUCTIVISM

Currently, the tenets of constructivism originate from the works of philosophers, educators and psychologists; they describe the individuals' belief of what education should be but do not include realistic, day-to-day strategies that a novice educator may implement. Davis and Sumara indicate that there is lack of clarity on the constructivist viewpoint and that the current literature is "fragmented and incoherent" (as cited in Gordon, 2009, p. 40). Although Gordon is a strong advocate for the constructivist perspective as a foundation for teaching and learning, he shares the same view as Davis and Sumara.

The literature on education has provided somewhat varying descriptions of the concept of constructivism. According to Snowman & Biehler (2003), students who learn using a constructivist perspective do two things; first, they build or "construct" an interpretation of how and why things occur and second, the students filter new ideas and experiences through existing knowledge structures. Slavin (1994) writes that students play an active role in their education by discovering, transforming and "owning" complex information. Students are continuously validating the knowledge they have created and make adaptations when the knowledge is no longer useful. Windschitl describes constructivism as "fluid intellectual transformations, which occur when students reconcile formal instructional experiences with their existing knowledge, with the cultural and social contexts in which ideas occur..." (as cited in Gordon, 2009, p. 39).

3.1 Constructivism: Learner's Role

Despite the varying definitions of constructivism, three common elements regarding learners and the social constructivist perspective have emerged, specifically:
1. Learners' actively create new knowledge through personal experience;
2. Learners' knowledge is influenced by the society around them and;
3. Learners' gain new knowledge from discussions with individuals with
different perspectives.

3.1.1 Constructivism: Learning and Personal Experience

The first element associated with constructivism is clearly linked to the work
of John Dewey, an American philosopher and educationalist. In his work, Experience
and Education (1933), Dewey explains his belief that learning occurs through
experience, "...amid all uncertainties there is one permanent frame of reference:
namely the organic connection between education and personal experience" (Dewey,
1997, p. 25). Though Dewey strongly believes that there is a relationship between
education and experience, he emphasizes that "everything depends on the quality of
experience which is had" (Dewey, 1997, p. 27) and concedes that not all experiences
are appropriate learning opportunities. Dewey deems events that prevent students
from enjoying and learning from further experiences or those that maintain students
within a narrow perspective as "mis-educative" (Dewey, 1997).

Nursing students who give their first bath gain different information from the
experience than a nurse who has performed the skill many times before. First year
nursing students learn how to overcome their initial shyness and reticence in
providing care that is both very personal and private while learning essential
organizational and time management skills. For the first year student, offering
hygiene care and comfort to a patient may be a "quality" experience; however, this is
not to say the graduate nurse did not learn anything from the same event.

Although giving a bath is not a new skill, it is a different experience every
time the graduate nurse performs it. For example, the nurse performs assessments and
learns integral data about the patient’s overall condition and activity tolerance. Although it is the same experience, the student nurse and graduate nurse have vastly different perceptions of the quality of their experience; but in both cases the nurses have discovered completely new knowledge. The knowledge that is constructed is the integration of the experiences that nurses have encountered in their clinical practice and through the reflective strategies that they have been engaged in. This becomes the “hidden knowledge” that nurses use to solve ill-structured problems that they encounter in the clinical setting.

In his work, *Education and Experience*, Dewey emphasizes that it is the educators’ responsibility to seek out experiences that students can perform successfully and can actively engage a student’s mind. At the same time, the educator must evaluate the “usefulness” of the experience from a learning and educational perspective; did the student learn something, anything at all from the experience or did the experience offer little educational value? Dewey (1997) writes that educators possess “greater insight to help organize the conditions of the experience of the immature” (Dewey, 1997, p. 38). From Dewey’s perspective, the “immature” individuals he refers to are the students or learners.

Similar to constructivism, the educator’s role in learning through experience is as a “guide by the student’s side”; educators purposely select experiences that provide the student the opportunity to independently discover and construct new ideas. Successful performance by the student sets the stage for more open and favorable feelings toward the next experiences, which can be deliberately selected to be slightly more challenging and advanced than the student’s current level of performance.
3.1.2 Constructivism: Learning and Society

The second element of social constructivism relates to the learning relationship between the learner and the society that surrounds them. These elements originate from the writings of Lev Vygotsky, a Russian psychologist whose significant contributions focused on the cognitive and language development of children. Due to the social interactions that the child has with significant individuals in their lives such as parents, siblings, peers and teachers, Vygotsky believed that a child’s cognitive development progressed. He also believed that culture and society play a significant role in what and how children learn to perform certain activities and skills. For example, a child in North America may learn to eat with cutlery while children in Asia may learn how to eat with chopsticks.

Important tenets in Vygotsky’s work and in the constructivist perspective are the concepts of the zone of proximal development and scaffolding. The zone of proximal development is the difference between the child's capacity to solve problems on his own and his capacity to solve them with assistance (Snowman & Biehler, 2003). Scaffolding is the amount of the support and assistance that is required to complete the learning experience and is individual to each learner.

Using these two concepts, educators construct learning experiences or problems that are slightly beyond the student’s current level of performance. As the student attempts to solve the problem, the educator provides scaffolds, which may take the form of guided prompts, cues or student-educator discussions related to the problem. As the student gains experience and independence in problem solving, the educator can gradually remove the scaffolds.
3.1.3 Constructivism: Learning and Discussion

Although the focus of the contributions of Paulo Freire, a Brazilian educator, is on social justice and critical pedagogy, he has outlined two important concepts that support the notion of social constructivism. Freire (1970) believes in the notion of problem-posing education as opposed to the “banking” concept of education. In the banking perspective of education, students are viewed as empty vessels where educators “deposit” knowledge. Problem-posing education, on the other hand, is based on discussion and dialogue with peers and the teacher. Freire writes that through problem posing education, “knowledge is attained when individuals come together to exchange ideas, articulate their problems from their own perspectives and construct meanings that make sense to them” (as cited in Gordon, 2009, p. 53). In this relationship, the student is responsible for their learning and must take an active role in their education while teachers are, at the same time, listening and engaging in discussions with their students. Through problem posing education, the learning process is a two-way street where “the teacher is no longer merely the-one-who-teaches, but one who is himself taught in dialogue with the students...they become jointly responsible for a process in which all grow” (Freire, as cited in Darder, Baltodano & Torres, 2003, p. 63).

4. REFLECTION

The use of reflection has been an established learning strategy within the nursing discipline. It provides students the opportunity to critically examine their nursing practice; they can review challenging cases from perspectives other than nursing, such as from the spiritual, ethical and social viewpoints. By engaging in reflective nursing practice, nurses demonstrate that they are thinking about their clinical practice and are looking at areas that require improvement; it is one method of ensuring quality in nursing.
The concept of reflection has its roots in constructivism; Phaneuf (2007) writes that the constructivist model is the ideal pedagogical approach in nursing education since it encourages nursing students' professional growth and the construction of sense of self and autonomy. According to Kim (1999), nursing practice is a "rich source of new knowledge as practitioners are engaged in creating as well as modifying knowledge" (Kim, 1999, p. 1205).

4.1 Reflection and Learning

During reflection, the students' role is implied. By writing or discussing their thoughts, perspectives and viewpoints, students are actively engaged in the learning process. The dialogue between the student, nursing instructors and peers is an essential ingredient to the learning process. As the student discusses their feelings, notions and ideas, educators and peers can question and debate the student's viewpoints and, as Freire writes, "the student can begin to construct a concept that makes sense to them" (Freire, as cited in Gordon, 2009, p. 53).

Both lower and higher levels of thinking described in Bloom's taxonomy are embedded in reflective learning; students review the facts of the issue at hand, analyze and evaluate the situation and, if warranted, create a new solution. In order for the learning process to be truly reflective, the learner must pass through all six levels of the taxonomy.

4.2 Reflection as a Constructivist Learning Strategy

Reflection and reflective journaling is a constructivist learning strategy; nursing students are asked to reflect on their clinical learning practice using a variety of scaffolds such as guided questions and discussions with peers and educators. The
difference between first year students and those in higher level courses is the specificity of the guiding questions; students in the first year of the program need to be pointed to a particular direction so explicit questions are developed. As nursing students progress to higher level courses, it is assumed that the students have started to learn to problem solve independently and how to review their clinical practice with a critical lens. The specificity in the guiding questions is removed and only general questions, cues or prompts are provided. The goal is that the student will continue to engage in independent problem solving and in self-reflective discussion once they graduate and are part of the nursing profession.

Reflective journaling is a window of opportunity for educators to grasp how students are thinking and learning. Plack et al (2007) write that the goal of reflective journaling writing is to go beyond recording the events of the day and that effective journal writing requires critical thinking and the analysis of daily experiences to construct deeper meaning from those experiences.

When nursing students are asked to write about significant clinical events that have occurred, educators want to observe how students think through the event and the process that students engage in to develop possible solutions. This can be demonstrated when students proceed through to the higher-order thinking levels. Journal writing that satisfies the lower-order thinking abilities does not encourage deep learning and allows only for a preliminary and surface examination of the issues.
CHAPTER THREE: LITERATURE REVIEW

1. REFLECTIONS AND PROFESSIONAL EDUCATION

Although Dewey and others have discussed reflection in education, the concept of reflection within the professions was initially explored by Donald Schon. Three concepts emerging from Schon’s work and which are central to the discussion of reflection are: technical rationality, reflection-in-action and reflection-on-action.

According to Schon (1987), technical rationality is the concept where professionals solve problems by using discipline-specific theory and scientific knowledge. However, Schon (1987) argues that the real world problems which professionals stumble upon are not the well-formed challenges that one encounters in the relative safety of the classroom or laboratory. The problems that professionals must solve are ill-structured where theoretical knowledge may not provide a ready-made solution. Although Schon (1987) agrees that scientific knowledge does play a role in solving the ill-structured problems (albeit a minor one), it is the “tacit knowledge” that the professional possesses which contributes most towards the solution. This unspoken or “hidden” knowledge is constructed from reflective and thought processes that the professional performs on a regular basis; it also integrates scientific and experiential knowledge gained from the events that the professional has encountered in their practice.

During reflection-in-action, the professional reflects on possible solutions while performing the activity. For example, a nurse has started to change a complex wound dressing and realizes that the wound’s dimensions are significantly different
from her original estimation. The supplies to change the dressing, which the nurse has brought with her, are the appropriate size for the original estimation. The nurse has to figure out how to make the supplies “fit” the actual wound size at the same time as she is assessing (examining) and cleaning the wound. To solve the clinical problem, the nurse will draw on the theory of asepsis (keeping items sterile and clean as possible) and the experiential knowledge she has gained from similar wound dressings.

Reflection-on-action occurs after the incident has taken place and where “the practitioner revisits an experience with the intention of exploring, and learning from, an activity” (Hannigan, 2001, p. 280). The information that is gained from the “reflection-on-action” process will become the basis of the experiential knowledge that the professional requires to respond to the unexpected, ill-structured problems that can occur in the field. In the context of nursing education, reflection-on-action is documented through reflective journals, clinical logs or post-clinical discussions. The clinical journals and logs play an important role in the assessment of the cognitive and affective abilities of nursing students.

2. REFLECTION AS A PROCESS

Much of the nursing literature depicts reflection as a three or five step process. This process plays an enormous role in helping nursing students learn and create new knowledge. Matthew-Maich et al (2000), Kim (1999) and Riley-Doucet and Wilson (1997) developed various frameworks that outline the reflective process. Although each framework varies in the number of phases included in the process, there is a common thread. Each framework has a “recognition” phase where students “know” or “feel” discomfort about an incident which occurred in the clinical area; the “examination” or analysis phase where students compare the event to an established standard (professional code of ethics or professional values) and the “change” phase where individuals change their behaviors and/or perspectives. It is interesting to note
that the frameworks of Kim (1999), Matthew-Maich et al (2000) and Riley-Doucet and Wilson (1997), follow closely Cranton’s (1992) transformative learning framework; the major difference is that in Cranton’s (1992) framework, reflection is only one part of a multi-step procedure in the learning process. Although it is only one step, the reflective process is significant because it is through that one step the impetus for change (and therefore learning) occurs. In contrast, the frameworks developed by Kim (1999), Matthew-Maich et al (2000) and Riley-Doucet and Wilson (1997) consider reflection as “the” process. Although they are all clearly different frameworks, the common theme is that a reflective period occurs and is essential before any learning takes place.

3. REFLECTION IN NURSING EDUCATION: BENEFITS AND CHALLENGES

Reflection has been used as a learning strategy in nursing education, most specifically in the clinical area, for a number of years. Students who engage in active reflection have an opportunity to understand their way of thinking, to explore their decision making process and to clarify or validate their values and beliefs. By examining how they approach clinical problems, students can evaluate and improve their ability to critically analyze nursing situations. When taking the time to reflect, students can discover additional strategies to implement when confronted with similar clinical problems.

Fonteyn & Cahill (1998) write that researchers have defined metacognition as “the ability to think about your thinking in order to make your thinking better”. They also describe that metacognition “consists of both knowledge (about one’s ability to think) and strategies (for thinking and problem solving)” (Fonteyn & Cahill, 1998, p. 149). The processes involved with metacognition are self-monitoring, self-analysis, self-evaluation and self-correction; interestingly, reflection is inherent in all the strategies described above. For a student nurse to understand how her personal
values may conflict with the values of her patients, the student will first need to examine, clarify and understand her own values. She will need to be conscious of the difference between her own values and those of her patients' and develop strategies on how to cope with differences when they occur. Reflective thought is inherent in all these metacognitive processes.

It is important to note that Kuiper & Pesut (2004) and Fonteyn & Cahill (1998) describe that the development of metacognitive skills is essential for sound clinical reasoning. Fonteyn & Cahill (1998) believe that reflection and reflective narratives help students learn thinking abilities that will improve their critical thinking and problem solving skills. Students who engage in metacognitive activities will be developing sound clinical judgment as well as reflective thinking; both of which are important to meet the competencies of the nursing education curriculum and the standards of the regulating bodies of the nursing profession.

One of the many challenges that nurse educators encounter is how reflection is implemented in nursing education curriculum. In his qualitative study, Burnard (1995) reports that nurse educators’ definition of reflection is consistent with the definitions described in the literature. The study also revealed that the nurse educators did not know how to integrate students’ reflective narratives and journals into their teaching. Some educators used critical event analysis; others followed the reflective frameworks found in the literature to encourage group discussion while others used guided journal writing. Perhaps the variety of reflective activities contributes to the inconsistent use of reflection as a learning strategy.

Interestingly, current educational literature indicates that it is important for educators to be involved in the students’ reflective process either by asking key questions or by providing constructive, descriptive feedback. In her framework, Francis (2004) asks students a set of important questions to help guide their reflections and to demonstrate that multiple alternative solutions may exist for one
clinical problem. Cranton (1992) emphasizes that it is important for educators to provide feedback to students’ about their journal entries on a regular basis. The feedback creates a dialogue between both the educator and student and works “towards transformative learning” (Cranton, 1992, p. 156). Carroll, Curtis, Higgins, Nicholl, Redmond & Timmins (2001) agree that adequate support and guidance from teachers are necessary in order for students to get the most learning from their reflective journals. Vygotsky would define all the above strategies as scaffolds and would agree that the supports are essential in the first year of a professional program but would expect that the supports would be removed as the students learn and become adept at the clinical problem solving.

There are educators who question the usefulness of reflection and challenge its value in nursing curriculum. Although Carroll et al (2001) indicate that there is a place for reflective practice in nursing education, they see the “need for rigorous research that provides evidence regarding the effectiveness of reflection and reflective practice in nursing” (Carroll et al, 2001, p.15). They also describe the legal, professional, moral and ethical implications that are raised when documenting reflective narratives in journals. Hargreaves (2004) also recognizes the importance of reflection in professional education but cites great difficulty in fairly assessing students’ reflective narratives. When a numerical value is assigned to the journals, Hargreaves (2004) believes that students do not engage in honest and open reflection. She believes that weekly reflective journals should be used as a forum to develop “the affective professional and personal attributes associated with being a competent practitioner” (Hargreaves, 2004, p. 200).

Although Clement (2007) feels that the reflective process provides the opportunity to integrate classroom knowledge to clinical situations, he does agree with Carroll et al (2001) and Hargreaves (2004) that in order to be truly beneficial students must be open and honest in their reflections.
4. QUALITY OF REFLECTION AND THE EFFECT OF CLINICAL EXPERIENCE

There have been a number of studies whose findings indicate that the amount of clinical experience is linked to the quality of student nurses’ reflective narratives. Students with previous clinical experience as registered nurses registered nursing assistants or orderlies reveal that the exercise of keeping a reflective journal was more meaningful. The research study conducted in 2000 by Matthew-Maich et al revealed that nursing students who benefitted more from reflective journaling and portfolios are the post-RN students who returned to school for their undergraduate degree. The question was raised whether the clinical work experience of the post-RN students provided them with a different perspective from which to reflect and analyze.

In the research study conducted by Newton (1995), the findings also indicate that the amount of clinical experience influenced the quality of student reflections. Five students (from a sample of eight) "demonstrated a greater reflective ability" (Newton, 1995, p. 194). Three of the students had prior nursing experience greater than 10 years and were returning to school for an undergraduate degree in nursing; the two others were in their third (and last year) of the program and had more clinical experience than students in their first and second year.

Similarly, Forneris & Peden-McAlpine (2007) discovered that novice nurses develop the ability to think critically as they gain more clinical experience. As stated before, metacognition and reflection are essential ingredients in the development of a sound critical thinker. Previous studies indicate that novice nurses "develop their critical thinking and achieve competence in an area within two-three years" (Benner, as cited in Forneris & Peden-McAlpine, 2007, p. 418). The learning intervention developed by the researchers encouraged the novice nurses to engage in self-dialogue, reflective journaling and discussions with their colleagues regarding the
clinical issues they were encountering. According to Forneris & Peden-McAlpine (2007), the intervention helped to accelerate the development of the novice nurses’ critical thinking abilities. Clearly, the study demonstrates that the ability to think critically is aligned with the amount professional experience.

5. QUALITY OF REFLECTIONS AND THE EFFECT OF CLINICAL PLACEMENTS

The same studies discussed in the previous section, also revealed that the area of clinical placements affected the nature of the reflections. Newton (1998) found that the “type of clinical experience the student had, appeared to have triggered reflection” (Newton, 1998, p.194). Students who were assigned to a clinical practicum on which they had little experience (both personal, work-related and educational) discovered that the experience challenged them in the domains of knowledge and professionalism and, as a result, their journal narratives revealed their reflections.

It is important to note that the environment surrounding the student plays a significant role in the nature of their reflections. Numerous studies (Atack, L., Comacu, M., Kenny, R., Labelle, N., & Miller, D., 2000; Dunn, S.V. & Hansford, B., 1997; Jackson, D. & Mannix, J., 2001 and Lofmark, A. & Wikblad, K., 2001) have demonstrated that clinical environment, the attitudes of the staff nurses in the department and the student’s relationship with their clinical instructor affects the ability to reflect and ultimately learn.

In their review of the literature, Kuiper & Pesut (2003) take another approach. They described studies conducted by Wong (1995) and Limataninen (2001) whose results indicate that the amount of clinical experience was not associated with a greater quality of reflections. Rather, nursing students who were engaged in guided reflections demonstrated more depth and insight in their journals. In these studies, it
seemed that guiding the reflective process promoted greater levels of reflectivity, with consequent transformation in the learning process (Kuiper & Pesut, 2003).

6. THEMES EXPRESSED IN REFLECTIONS:

Three research studies explored how the amount of clinical experience affected the nature of the reflections but also identified themes that nursing students reflect about. In Newton’s study, students’ reflections concern their empirical (35.3%) and personal (39.2%) knowledge. Matthew-Maich et al (2000) uncovered similar themes related to scientific knowledge and professional and personal growth however other themes linked to the “oppression” of a profession dominated by women also emerged. A recurring theme in Smith’s (1998) study related to “being professional”; nursing students had “difficulty in disentangling the ‘personal’ and ‘professional’ involvement” (Smith, 1998, p.891).

7. RESEARCH QUESTIONS

Based on the review of the literature concerning reflection and reflective thinking in nursing education and with personal experience teaching nursing, four research questions were developed:

A. Concerning their clinical practice, what are the issues/events that students in a 3-year nursing diploma program reflect on?
B. Is there a relationship between the amount of clinical practice and the clinical issues that students in a 3-year nursing diploma program reflect on?
C. What level of analysis do students in a 3-year nursing diploma program typically use when reflecting on their clinical practice?
D. Is there a relationship between the amount of clinical practice and the level of analysis that students in a 3-year nursing diploma program typically use when reflecting on their clinical practice?

8. DEFINITION OF CONCEPTS:
There are several concepts in the research questions that require definition.

8.1 Issues and/or events

Research Question 1: Concerning their clinical practice, what are the issues and/or events that students in a 3-year nursing diploma program reflect on?

For the purpose of this research, an issue is a matter or topic which the student has identified in their reflective journals; the issue can concern patient care, nursing values, ethical principles and/or self-evaluation of the student’s nursing care; the issue can be a positive experience or can have negative underpinnings.

In this study, an event is an occurrence or episode that has taken place during the course of the students’ clinical practice and one that the student has identified as significant; the event can be an “everyday” experience or one that is “puzzling or problematic” (Francis, 2004, p. 244).

Operational definition for issues and/or events: the issues and/or events will emerge from a content analysis of nursing students’ weekly clinical journals.
8.2 Clinical Practice

Research Question 2: Is there a relationship between the amount of clinical practice and the clinical issues that students in a 3-year nursing diploma program reflect on?

Research Question 4: Is there a relationship between the amount of clinical practice and the level of analysis that students in a 3-year nursing diploma program typically use when reflecting on their clinical practice?

Clinical practice are the interactions, cognitive processes and clinical skills which nursing students engage in during their scheduled nursing education-related hospital rotation, the time and experience related to previous and/or current employment in the health care field and/or the time and experience caring for a family member with a chronic illness or debilitating condition and who requires assistance with their activities of daily living. For example, the care that a nursing student provides to family members with multiple sclerosis, end-stage Alzheimer’s or who are hemiplegic as a result of a stroke will be, for this study, considered as clinical practice.

Operational definition of clinical practice: amount of time which the student is engaged in clinical experiences associated with nursing education; clinical experiences outside of formal nursing education, such as work experience in the health care field as orderlies or patient attendants or experience as externs will also be considered; clinical practice will be measured through the demographic questionnaire (see Appendix C).
8.3 Level of Analysis/Thinking

Research Question 3: What level of analysis do students in a 3-year nursing diploma program typically use when reflecting on their clinical practice?

Bloom’s taxonomy for the cognitive domain is categorized into lower-order and higher-order thinking with the first three levels, knowledge, comprehension and application classified under the lower-order category and the last three levels of analysis, evaluation and synthesis classified in the higher-order category. Operational definition of level of analysis: the coding schema developed by Cuppernull et al (as cited in Plack et al, 2007, p.287) which is based on Bloom’s Taxonomy, will be used to measure level of analysis of the students’ reflective journals.

In the following chapter the methodology used to address these four research questions will be discussed.
CHAPTER FOUR: METHODOLOGY

1. SETTING, POPULATION AND SAMPLE DESCRIPTION

The setting of the study is a large urban Anglophone college offering a diploma level-nursing program in a major metropolitan area in Quebec.

The population for this research was first and fifth semester students enrolled in college level (diploma) nursing programs in the province of Quebec. A convenience sample of 19 students, enrolled in an Anglophone college-nursing program during the Fall 2009 semester was recruited. The 19 participants comprised of 11 (57.9%) Semester One and 8 (42%) Semester Five students.

2. PROCEDURE: DATA COLLECTION

One faculty member teaching first year nursing students and one faculty member teaching third year students, agreed to participate in the research project. Although the two faculty members taught in two different nursing courses, both faculty were assigned to an acute gerontology clinical unit for Fall 2009 semester. Therefore, the two student groups worked with the same patient population (but on different days). Although both student groups were assigned to the same clinical placement, it is important to note that the course competencies are different for the two nursing courses, Introduction to Nursing, a Semester One course and Loss of Autonomy, a Semester Five course; the focus of the clinical experiences for both courses are not at all similar.
The researcher met with the clinical groups to discuss the study, emphasizing the objective of the research study, the methodology that was to be used and how the data would be collected; the consent form was also reviewed. The researcher provided her contact information should students wish to have points clarified and to answer any additional questions that students may have regarding the study. Students who did not wish to participate in the research project were instructed to draw a line through each page of the consent form. Students who decided to withdraw their participation while data collection was in progress were asked to inform the researcher of their decision to discontinue with the study.

To maintain confidentiality and to match demographic data with the narrative journals of the two different student groups, the researcher established a coding system. Numbers 1000 to 1016 were assigned to the consent forms of Semester One group and numbers 5000 and 5008 were assigned to the consent forms of the Semester Five group.

After meeting with the clinical groups, the researcher provided the two faculty members with the consent forms, enclosed in brown envelopes, to distribute to the students in their groups; the two faculty members also collected the consent forms once the students had read and signed them. Although the possible sample from the Semester One group could have been 16 participants, only 11 students returned their signed consent forms.

The two faculty members submitted the signed consent forms, student questionnaires and clinical journals to an administrative assistant from the Mathematics Department, which were then kept in a locked cabinet accessible only by the administrative assistant.
The survey was administered to the participating clinical groups during the Fall 2009 semester. Once clinical rotations started, nursing faculty assigned to the participating groups photocopied the students’ weekly clinical journals ensuring that only the numerical code assigned to the students was identified on the documents.

The journals were then placed in sealed envelopes that were identified by clinical week. The sealed envelopes were given to the administrative assistant who, in turn, kept the envelopes in the locked filing cabinet. The clinical journals, consent forms and demographic survey were turned over to the researcher during the Winter 2010 semester, after the final grades for the courses were submitted.

3. INSTRUMENTS FOR DATA COLLECTION

Data was collected during the Fall 2009 semester using two instruments: a questionnaire developed by the researcher and the students’ weekly clinical journals.

A short survey, consisting of closed and open-ended questions was administered to the clinical groups. Several questions were asked in order to establish a demographic profile of the sample and to determine the amount and type of clinical experience the students’ had accumulated prior to this study. Appendix C includes the survey that was administered to the students during the Fall 2009 semester.

The second data collection instrument was the students’ reflective narratives from their weekly clinical journals. It is important to note that first and fifth semester clinical journals were different; first semester journals contained a well-defined reflective question where the fifth semester journals contained a reflective question with less direction and guidance. It is assumed that Semester Five students have accumulated enough experience with post-clinical reflective journals from their four previous semesters that a question without specific direction would be appropriate.
The reflective question that first semester nursing students were required to complete is found in Appendix D and the reflective question for fifth semester students can be found in Appendix E.

4. DATA ANALYSIS: PROCESS

Content analysis is a method used to study qualitative data and has been described as the “analysis of narrative data to identify prominent themes and patterns among themes” (Loiselle, Profetto-McGrath, Polit and Beck, 2007, p. 395). Gay, Mills and Airasian (2009) describe that, in content analysis, meaning is constructed by identifying patterns and themes that emerge from the data. Content analysis can be conducted on a variety of material such as books, television programs, documentaries or transcriptions of interviews or focus groups. As Berg (2007) describes content analysis is typically “performed on various forms of human communications” (Berg 2007, p. 311). In this research, content analysis was conducted on the Semester One and Semester Five narrative clinical journals.

In order to address Research Question One, which concerns the issues/events that students in a three-year nursing diploma program reflect on and Research Question Two, which explores the relationship between clinical experience and the issues that nursing students in a three-year nursing diploma program think about, an inductive approach to content analysis was applied. In the inductive approach, large amounts of information are examined and reduced, through coding and categorizing, to manageable pieces of data. Loiselle et al (2007) describe a form of inductive approach called open coding; in this type of coding, the information is broken down into smaller parts. Those smaller chunks are compared for similarities and differences; similar events are then grouped together in a category. For this study, the researcher read all the narrative journals from week two to week seven of Semester One students and week two to week six for Semester Five students. Weeks one, seven
and eight clinical journals were not considered for the data collection since week one of all clinical placements is an orientation week, one in which students take one day to become familiar with the nursing care unit, its procedures, policies, routines and documentation. Week seven (for the Semester Five group) and week eight (for Semester One group) are the last weeks of the clinical rotation and students usually leave the clinical area much earlier than previous weeks.

An initial reading of the Semester One students' journal entries was done in order to become familiar with the language and tone of the reflections. After the initial reading, the journals were re-read in order to extract recurring themes. Broad categories emerged after reviewing and examining the themes that were presented. Further scrutiny of the themes resulted in an amalgamation of similar categories. A coding system was then developed whereby categories were given a specific code.

It is important to note that the researcher implemented a test for intra-rater reliability in order to ensure validity of the data. In this case, the same process was used to extract themes from the Semester Five student journals; the data from both groups of students were examined and treated separately and at two distinctly different time periods. (The journals from the Semester One group were reviewed six to eight weeks before the journals from the Semester Five group). Semester One student journals were examined, reviewed and then placed aside. Using the same set of codes, the same process was implemented for the data analysis of the Semester Five students. Once the data from both student groups were analyzed separately, the results were examined as a whole; same themes were combined under revised themes.
To answer Research Question Three which examines the level of thinking that nursing students in a three year diploma program engage in when reflecting on their practice and Research Question Four, which explores the relationship between level of thinking that nursing students in a three year diploma program engage in and the amount of clinical practice, a deductive approach was implemented. In this approach, conclusions are drawn “based on general principles, observations or experiences” (Gay et al, 2006, p. 5). A coding schema developed by Cuppernull et al (as cited in Plack et al, 2007, p.287) to evaluate the reflective essays of medical students, was used to determine the level of thinking of Semester One and Semester Five student groups.
### Table 1
Coding Schema Based on Bloom’s Taxonomy for the Cognitive Domain

<table>
<thead>
<tr>
<th>Level</th>
<th>Task</th>
<th>Knowledge and Comprehension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level I</td>
<td>Data Gathering</td>
<td>The student describes the experience for the purpose of understanding or making meaning; s/he might explain what happened from their perspective, might describe his/her thoughts, feelings, actions; might state the results of his/her actions; s/he begins to recognize gaps in knowledge (i.e., surprise, confusion, etc.); s/he begins to explore something about the experience that stands out as interesting, different, confusing, unique. The more skillful reflector would analyze the experience from a number of different perspectives beyond the self.</td>
</tr>
<tr>
<td>Level II</td>
<td>Data Analysis</td>
<td>The student attempts to deconstruct the experience; analyzes what happens from his/her perspective; differentiates between perceptions, feelings, thoughts, facts, etc; begins to examine alternative explanations; s/he begins to raise questions; s/he begins to explore why this particular experience stands out for him/her. The more skillful reflector would analyze the experience from a number of different perspectives beyond the self.</td>
</tr>
<tr>
<td>Level III</td>
<td>Conclusion Drawing</td>
<td>The student attempts to draw conclusions based on his/her analysis of the experience; s/he might begin to hypothesize different strategies for the future; s/he recognizes learning beyond the description of the experience; s/he articulates what s/he has learned from the experience. The more skillful reflector would analyze the experience from a number of different perspectives beyond the self.</td>
</tr>
</tbody>
</table>

(Cuppernall et al as cited in Plack et al, 2007, p.287)
The coding framework presented in Table 1, developed by Cuppenull et al (as cited in Plack et al, 2007, p.287), is a modified taxonomy based on Bloom’s Taxonomy. The key difference between the modified version and the original version is that Bloom’s six categories have been merged into three categories. Level I “data gathering”, has Bloom’s original categories of “knowledge recall” and “comprehension” classified under Level I. Under this level, students “describe the experience for the purpose of understanding or making meaning” (Cuppenull et al, as cited in Plack et al, 2007, p. 287).

The second level, Level II: “data analysis” contains the original taxonomy categories of “analysis” and “application”. At this level, the student attempts to separate emotions and feelings from fact and begins to deconstruct and examine the different “pieces” of the experience.

The third level, Level III is classified as “conclusion drawing”. Bloom’s original categories of “synthesis” and “evaluation” are grouped in this category. Plack et al (2007) describe students in Level III as attempting to “draw conclusions based on their analysis of the experience” (Cuppenull et al as cited in Plack et al, 2007, p. 287).

Using the coding schema, week two clinical journals of the Semester One and Semester Five group, week seven clinical journals for Semester One group and week six clinical journals for the Semester Five group were read, reviewed and then placed into the different levels of thinking. Similar to the study by Plack et al (2007), the researcher assumed that journal entries classified at a higher level of thinking would also, by default, include lower-levels of thinking.
CHAPTER FIVE: RESULTS

After analyzing the data collected from the surveys and conducting a content analysis of the clinical journals, an attempt was made to see how the data could be used to address the original research questions.

1. DESCRIPTION OF SAMPLE

All nursing students were divided into clinical groups prior to the start of each semester; each clinical group is composed of a maximum of eight students and one nursing educator.
Table 2
Sample characteristics

<table>
<thead>
<tr>
<th></th>
<th>Semester One</th>
<th>Semester Five</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Students (n)</td>
<td>11 (57.9%)</td>
<td>8 (42.1%)</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 20 years old</td>
<td>2 (18.2%)</td>
<td>1 (12.5%)</td>
</tr>
<tr>
<td>20-30 years old</td>
<td>7 (63.6%)</td>
<td>5 (62.5%)</td>
</tr>
<tr>
<td>31-40 years old</td>
<td>1 (9.1%)</td>
<td>1 (12.5%)</td>
</tr>
<tr>
<td>41-50 years old</td>
<td>1 (9.1%)</td>
<td>1 (12.5%)</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>0 (0%)</td>
<td>1 (12.5%)</td>
</tr>
<tr>
<td>Female</td>
<td>11 (100%)</td>
<td>7 (87.5%)</td>
</tr>
<tr>
<td>Language</td>
<td></td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>5 (45.5%)</td>
<td>6 (75%)</td>
</tr>
<tr>
<td>French</td>
<td>1 (9.1%)</td>
<td>1 (12.5%)</td>
</tr>
<tr>
<td>French &amp; English</td>
<td>1 (9.1%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Other</td>
<td>4 (36.4%)</td>
<td>1 (12.5%)</td>
</tr>
<tr>
<td>Clinical Experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Externship</td>
<td>0 (0%)</td>
<td>6 (75%)</td>
</tr>
<tr>
<td>Prior work experience</td>
<td>1 (9.1%)</td>
<td>1 (12.5%)</td>
</tr>
<tr>
<td>Current work experience</td>
<td>0 (0%)</td>
<td>3 (37.5%)</td>
</tr>
<tr>
<td>Personal experience</td>
<td>2 (18.2%)</td>
<td>2 (25%)</td>
</tr>
</tbody>
</table>

Table 2 provides the characteristics of the study sample. The 11 Semester One students were assigned to clinical groups using a random selection mechanism. The eight Semester Five students were assigned to clinical groups according to the clinical grades the students earned in the previous nursing course. Therefore, the Semester Five clinical group had at least one student who achieved a clinical grade of “A”, one student with a clinical grade of “B” and one student who achieved a “C”. 

The Semester One group range in age between 18-46 years, which is very similar to the Semester Five group whose age range is between 19-45 years. In both student groups, the 20-30 year old age range has the highest percentage of students with 63.6% in the First Semester group and 62.5% in the Fifth Semester group.

All 11 students (100%) in the Semester One group were females while in the Semester Five group; there was one (12.5%) male student and seven (87.5%) female students.

In the Semester One group, five (45.5%) students identified English as their mother tongue with one (9.1%) student indicating French as their mother tongue and one (9.1%) student identifying that their mother tongue was both French and English. In the Semester Five group, six (75%) students identified English as their mother tongue, one (12.5%) student identified French and one other student (12.5%) identified another language as their mother tongue. Interestingly, four (36.4%) Semester One students identified a mother tongue that is neither French nor English compared to only one (12.5%) of Semester Five students.

It was important to identify the mother tongue of the participating students since the bulk of the qualitative data for this research study is derived from the clinical journals developed and written by students in both groups. If students do not understand the question or cannot write in a manner that is clear and concise, this might have affected the results of the study. As we can see from Table 2, there are a high percentage of students whose mother tongue is neither French nor English. It must be noted, however, that for this group of students, their mother tongue does not affect their ability to pass their exams in the both the Nursing Program and in the provincial nursing licensing exam.
The externship program is a summer program developed and administered by the OIIQ. In order to be eligible for the externship program, nursing students must have successfully completed all second year nursing courses. The externship program provides second year nursing students the opportunity to put into practice the knowledge, assessment and clinical skills they have learned in the first two years of the nursing program. Externs (the status of the nursing students who are participating in the program) work and are supervised by a licensed nurse during the whole externship experience.

Clinical experience for two (18.2%) students in the Semester One group comes from personal experience, in which they provide and assist family members with basic care activities. In terms of clinical experience for the Semester Five group, six (75%) students worked as an extern during the summer preceding the Fall 2009 semester (Summer 2009). Of the 75% of the students who were externs, two (25%) of them worked on a general medical-surgical unit and in the Paediatric (care of children and adolescents) specialty. Only three (37.8%) students from the Semester Five group continue to work part-time while attending school on a full-time basis. In the Semester Five group, the majority of the students’ clinical experience originates from the externship program and current work experience. Interestingly, both Semester One and Semester Five groups each have one student who held a job in health care prior to enrolling in the nursing program.

2. PRESENTATION OF RESULTS

The following sections will describe the findings that emerged from an analysis of the data. The findings under each research question will be presented.

In order to answer the first two research questions, students’ reflective journals that were completed after their weekly clinical experience were read and re-read in order to extract recurring themes. It is important to note that the reflective
narratives of the students in both Semester One and Semester Five groups were examined separately and at two different time periods. An examination of the extracted themes of both Semester One and Semester Five groups revealed that common categories of themes emerged.

A coding schema developed by Cuppernull et al (as cited in Plack et al 2007) was used to determine the level of thinking that Semester One and Semester Five students engaged in. Week two reflective journals for both Semester One and Semester Five groups and the reflective journals for week seven for the Semester One group and week six for the Semester Five group were examined and coded to one of the three levels of thinking identified by Cuppernull et al (as cited in Plack et al, 2007).

2.1 Description of the Results Pertaining to Research Question One

The first research question asks the following: what are the issues/events that students in their first or fifth semester of a six-semester diploma-nursing program reflect on?

In an analysis of the clinical journals of first and fifth semester nursing students, eight common and distinct themes have emerged:

1. Ability to provide basic nursing care;
2. Ability to communicate with patients;
3. Importance of collaboration among colleagues;
4. Ability to manage time efficiently;
5. Discussion of an emotional response;
6. Description of a critical incident;
7. Continuous learning within the profession;
8. Professionalism during clinical experience.
2.1.1 Basic Nursing Care

Basic nursing care refers to the knowledge and fundamental clinical skills, which all nurses can provide to their patients. Usually this type of care is classified as “activities of daily living” (ADL) and encompasses the care that patients would independently engage in such as hygiene care (bathing and grooming), toileting and eating. These types of care are the clinical skills that student nurses first learn when they begin their nursing education. The theme of “ability to provide basic nursing care” emerged from the journal writings in which the students describe their perspective and experiences when providing this type of care to their patients. For the Semester One student group, this may be the first time they find themselves in this type of situation where they need to provide care that is generally very personal and intimate.

2.1.2 Ability to Communicate With Patients

The second theme that emerged from an analysis of the clinical journals is the ability to communicate with patients. Both Semester One and Semester Five students completed their clinical experience on an acute care geriatric unit. Patients on the unit were elderly with some patients experiencing cognitive and/or physical impairments related to dementia or cerebrovascular accident (CVA)/stroke. In their clinical journals, students described the challenges of assessing and interacting with their assigned patients.
2.1.3 *Importance of Collaboration among Colleagues*

Another theme, which surfaced from the analysis of student journals, is "importance of collaboration among colleagues". Descriptions of how health professionals and students work together in order to complete patient care were outlined in the journals. Many of the thoughts that were brought forward under the theme of collaboration were also linked to the discussions that occurred under the theme of the "ability to manage time efficiently".

2.1.4 *Time Management*

Under the theme of time management, students wrote about how they prioritized patient care and the challenges that came with learning to complete patient assessment and care within a specified time frame.

2.1.5 *Discussion of an Emotional Response*

In their clinical journals, students identified and described emotions that they experienced as they progressed through their clinical placements. Many of the emotions that students describe are linked to significant events that they observed or lived through during their clinical experience.

2.1.6 *Description of a Critical Incident*

Another theme that emerged from the journals is a description of a "critical incident". Norman, Redfern, Tomalin and Oliver describe critical incidents as a "real event from practice" that has an "impact" on the students (as cited in Schutz, 2008, p. 68). Norman et al describe that the impact can be either "negative or positive" and that the incidents can be very "general with a number of issues" that emerge or one
specific event with a very clear "beginning and end" (as cited by Schutz, 2008, p. 68). The incidents that were outlined in the students' journals were very specific events that had negative connotations and emotions; which leads to the last theme of emotional response.

2.1.7 Continuous Learning within the Profession

A theme that was noted in the reflective journals is the concept of lifelong learning. Students realize that although they have graduated and obtained their license to practice nursing, their learning and education has not finished. The rapid pace of innovations and technology in health care will serve as a catalyst for students to continue on in their journey of learning.

2.1.8 Professionalism during Clinical Experience

The last theme that emerged from the journals is the idea of professionalism. The concept itself is quite broad and can refer to anything from professional values and ethics and how it influences patient care to the behaviour demonstrated by the health care professionals. In the student journals, the focus was on the nursing values and ethics and how they "play out" in the clinical environment.

2.2 Description of the Results Pertaining to Research Question Two

Research question two asks the following: is there a relationship between the amount of clinical practice and the clinical issues that students in a three-year nursing diploma program reflect on?
Although the themes were common to both student groups, the one distinct difference between the two groups is the examination and reflection of the clinical experience from two very different perspectives.

Table 3
Common Themes by Student Groups

<table>
<thead>
<tr>
<th>Themes</th>
<th>Semester One n=11</th>
<th>Semester Five n=8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to manage time efficiently</td>
<td>5 (45.4%)</td>
<td>2 (25%)</td>
</tr>
<tr>
<td>Ability to provide basic nursing care</td>
<td>4 (36.4%)</td>
<td>2 (25%)</td>
</tr>
<tr>
<td>Description of critical incident</td>
<td>4 (36.4%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Discussion of an emotional response</td>
<td>4 (36.4%)</td>
<td>1 (12.5%)</td>
</tr>
<tr>
<td>Professionalism during the clinical experience</td>
<td>4 (36.4%)</td>
<td>4 (50%)</td>
</tr>
<tr>
<td>Ability to communicate with patient</td>
<td>3 (27.3%)</td>
<td>2 (25%)</td>
</tr>
<tr>
<td>Importance of collaboration among colleagues</td>
<td>3 (27.3%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Continuous learning in the profession</td>
<td>2 (18.2%)</td>
<td>6 (75%)</td>
</tr>
</tbody>
</table>

Table 3 is a breakdown of the common themes by student groups. Semester One students focus on issues that are tangible, such as the completion and satisfactory performance of clinical skills. They also discuss clinical issues as it relates to their own knowledge and abilities. Semester Five students discussed clinical situations from a "global" perspective; for example, the Semester Five group describe their development from nursing students to novice practitioners and how they make connections and apply nursing and biology knowledge in order to care for the patient in a safe and holistic fashion. Semester Five students are able to link patient care issues that they see and experience on a daily basis to the overall state of healthcare in the province. For the Semester Five student group, the focus is less on the performance of clinical skills but on the recognition of how knowledge of nursing assessment and abilities work together in order to make a clinical decision.
2.2.1 Ability to Manage Time Efficiently

Approximately forty-five percent (45.4%) of Semester One students describe the enormous effort it requires to provide basic nursing care for one patient and to collect essential patient assessment data within a specified time frame:

While at the nurses’ station in the morning, I had access to my patient’s chart since the nurses were not using it at that time. I was busy looking at the chart that by the time I went to take my patient’s vital signs, he had gone to take his bath. I felt bad because the nurse wanted it before giving his medications...So far I haven’t had the opportunity to interview my patient. When I was about to interview him, he had a visitor...(Semester One, 1002, Week two).

We learnt quickly that we had to check if our patient was awake a little earlier, because he was indeed waiting for us to come and take his blood pressure. I felt a little bad, because the nurse seemed to be a little overwhelmed by us, especially the fact that we were in charge of taking the patient’s vital signs before she administered some of the medications (Semester One, 1007, Week two).

In contrast, 25% of the fifth semester students discuss the difficulty in prioritizing nursing care and interventions for patients with complex medical problems:

This first day with my patient was a bit overwhelming for me due to all her co-morbidities trying to establish priorities when she is in such decline....it was more draining for me than I thought it would be (Semester Five, 5006, Week Two).
2.2.2 Ability to Provide Basic Nursing Care

In terms of providing basic nursing care, slightly more than a third (36.4%) of Semester One students wrote about performing hygiene care for the first time to their assigned patients. In their clinical journals, the students described the issues which they encountered as they assisted their patients in performing very personal and intimate care.

Now, where it got a little bit difficult for me was when it was time for a bed bath. In the lab, we have practiced bed bath, but we did not practice perineal care. I have never really done this task in elderly people, so it was a big and different challenge for me. It did make me feel uncomfortable at first; because there was a smell, but I became used to it and it did not bother me anymore. I have to overcome my fear for perineal care in bed baths. (Semester One, 1008, Week Two).

I guess dealing with foul odor was really challenging for me today. I tried to be professional about it and whew! It was not easy. (Semester One, 1005, Week Six).

Two fifth semester students (25%) describe how they encourage the patient to perform their hygiene care and other activities of daily living (ADLs) independently in order to promote and maintain their patients’ autonomy.

I learned that since my externship that I don’t need to be with a patient. If the patient can do for him/herself I leave them to it and fosters independence... (Semester Five, 5004, Week Two)

I also learned that just because someone is deteriorating healthwise does not mean they do not want to keep their independence... (Semester Five, 5005, Week Two)

What I found helped me with some of my patients was try to get them to see and realize what they still can do and or what they still have. (Semester Five, 5005, Week Two).
From the reflections above Semester One students are concerned about performing hygiene care (bed bath) correctly while maintaining their professionalism during the procedure while Semester Five students discuss the importance of maintaining their patients' independence and autonomy despite the patients' advanced age and possible cognitive deficits.

2.2.3 Description of a Critical Incident

An examination of clinical journals from both student groups demonstrates that only the Semester One student group discussed a critical incident that occurred during their clinical experience. A little more than a third (36.3%) of Semester One students felt compelled to write about events that they experienced during the clinical rotation. Interestingly, all the critical incidents that have been documented by the Semester One student group have negative connotations; two recounted the conditions of the patients and the difficulty the students experienced in coping with the physical condition of the patient.

While giving her a bed bath I asked if she had fresh socks to change her old ones. She said 'no' and I put on her old soiled socks. Her toenails were hideously long, we were so focused on the bed-bathing that we didn’t think that her toenails needed to be cut until we were on the Metro going home. (Semester One, 1014, Week Two)

...was the fact that the patient I had has dementia and her attitudes and behaviours reminded me a lot of something my mom went through this year....I find it very distubing to watch someone suffer from dementia.... (Semester One, 1008, Week Seven).

Another critical incident concerned a perceived lack of support from family or relatives:

Mrs. P has a lot of different things on her bed table and windowsill. Her daughter comes to see her every morning before work. There is Mrs. S in the same room with Mrs. P. The only
personal thing she has is a tube of cheap toothpaste; a sorry sight (Semester One, 1014, Week Two).

Perhaps, for first semester students, who have had little or no experience working in a hospital setting and caring for acutely ill patients, events that are viewed as having a negative impact are judged to be meaningful.

The Semester Five group have previous clinical experience as they have been in the hospital setting for previous clinical rotations; some Semester Five students may have worked as externs during the summer and may be accustomed to the events that occur in health care and may not view them as particularly significant.

One critical incident description focused on how a Semester One student overstepped the boundaries of professional courtesy and respect. Of the four critical incidents, this event is the only one that was resolved.

...I teased him/her (fellow student) publically with a comment I made based on a conversation we shared while getting into uniform. My comment was intended to be light-hearted and fun but was received by him/her as a breach of privacy. I felt bad realizing that I had overstepped a sense of camaraderie and professionalism...I was grateful that my error was made known to me and that I could extend my apology (Semester One, 1013, Week Two).

2.2.4 Discussion of an Emotional Response

Students from both groups wrote journal excerpts that described emotions, which they experienced during their clinical placement. Roughly a third 36.3% of Semester One students were able to identify the causes of their feelings and emotions; students expressed frustration when there was difficulty in communicating effectively with patients whose cognitive abilities have been impaired or when relevant patient documentation was difficult to locate:
I think ---- and I were a little frustrated when were unable to interact with Mr. V. (Semester One, 1007, Week Two).

But I was getting frustrated with the charts because certain information was hard to find… (Semester One, 1006, Week Two).

Another source of angst for first semester students was observing nursing practice that was not consistent with the nursing knowledge and theory students learned in class:

It is difficult sometimes to see the nurse doing totally opposite of what we learn in class though (Semester One, 1012, Week Two).

One fifth semester student expresses how overwhelming it is to care for patients with complex health problems and how draining it can be to one’s mental capacity:

This first day with my patient was a bit overwhelming for me due to all her co-morbidities trying to establish priorities when she is in such decline….it was more draining for me than I thought it would be (Semester Five, 5006, Week Two).

2.2.5 Professionalism during the Clinical Experience

Semester One students describe how they collaborated with the nursing department’s staff to help alleviate the effect of shortage of health care professionals. The Semester One student group discuss how they were able to step in and contribute to the welfare of the patients. They also describe how the clinical experience benefits patients, nursing staff and student nurses.

This week I realize how there is a lack of nurses, during the lunch hour (around 11h30) ---- was looking for a nurse about a
patient and we had to look around for a nurse for about 10 minutes…. (Semester One, 1012, Week Six).

…that another patient kept yelling for help. We tried to find her nurse, but could not. We tried to help her, but did not understand what she wanted…it took a while for her nurse to come. This made me reflect on how busy the staff is…also a shortage of nurses does not help the situation. I think it is important that student nurses (like us) go into the hospitals, not only to learn but to help out as much as we can (Semester One, 1015, Week Two).

Although both Semester One and Five student groups recognize their practice limitations while in clinical, the Semester Five students discuss the shift from student to novice practitioner.

I’m having trouble finding the balance between still being a student and starting to be able to do stuff myself because I feel that if I take too much leeway then that’s not good… (Semester Five, 5004, Week Six).

We also, have to know our limits. When we cannot do something, we should admit to it, and seek the help or knowledge we need (Semester Five, Week Two).

Students from the Semester Five group also describe how problems in health care affect the nurses’ ability to provide appropriate care for the patients. This discussion triggered a questioning of professional values and ethics:

…I saw how difficult it is for nurses and the whole floor to be so short-staffed and cannot imagine working in an environment like that all the time. Not being able to give thorough care is a real concern I see in the nursing profession due to such business and that plays on the moral as well as the ethics of the people involved (Semester Five, 5006, Week Two).

A patient shouldn’t have to feel like they owe something to the staff…as though the patient feels they are a burden and that staff
should be compensated (extra) for care (Semester Five, 5007, Week Two).

2.2.6 Ability to Communicate with Patients

Both Semester One and Semester Five students expressed difficulty in communicating with patients whose cognitive abilities have been affected due to dementia, Alzheimer’s disease or as a result of a cerebrovascular accident (CVA/stroke):

It was the first time I had to deal with someone who had dementia...Near the end of the shift I was having trouble dealing with the fact that I had to repeat myself over and over. I tried my best not to let my annoyance show, because I know this is not her fault (Semester One, Week Six).

Although one-fifth semester student encountered difficulty in communicating with their patient, the student described how communication techniques learned in class were applied to the clinical situation:

My client is pleasantly demented and it takes patience to repeat information frequently in order for her to really grasp what I am saying....Working with a patient/client who is pleasantly demented and gets very agitated at times, takes someone with experience to calm this individual down. I don’t have such experience but I remember my clinical teacher speaking about validation therapy, which is used for the elderly who has impaired cognition and dementia. I tried this and it worked.... (Semester Five, Week Two).

2.2.7 Importance of Collaboration among Colleagues

Approximately twenty-seven percent (27.3%) of Semester One students mentioned collaboration among colleagues. Although the clinical journals describe the heavy workload of the nursing staff, one Semester One student expressed how collaboration among team members strengthens work relationships and another Semester One student described the positive impact of collaboration on patient care:
We all got along great and everyone was willing to help each other out... It makes your day go by quickly and helps you through the difficulties (Semester One, 1003, Week Seven).

She (the PAB) asked me to get my client’s breakfast tray to make things easier for her and I said sure since my client mentioned she was hungry. I felt bad that my client had gotten breakfast before everyone else, and so I got the other patients’ breakfast trays too.

I did this for a couple of more patients since mine was eating so I had time to spare... (Semester One, 1015, Week Seven).

Interestingly, only students from the Semester One group wrote about the collaboration among health care professionals and its positive impact on patient care. Perhaps for the Semester Five group their previous clinical experiences have made them indifferent to the roles of the other health care professionals.

2.2.8 Continuous Learning in the Profession

The theme of continuous learning in the profession was addressed in clinical journals from both student groups. However 75% of Semester Five students discussed learning and knowledge in the profession while only 18.2% of Semester One students addressed it. One concept that was common to both groups is self-recognition of knowledge gaps. Both Semester One and Semester Five student groups were insightful and acknowledge that there were many things they have yet to learn. The key difference between the two groups of students was the degree and depth of the knowledge gaps. The Semester One group view their knowledge gaps as the inability to achieve a certain level of comfort when performing clinical skills:

This week I was just really happy that I got the vital signs right seeing as last week it didn’t go so well... (Semester One, 1006, Week Six).
The first bed bath was kind of awkward but I felt quite accomplished to have done the full bed bath, changed all the linens... (Semester One, 1007, Week Two).

I really appreciated the fact that the nurses on the unit helped me to understand her better and... guide her through her self-care practices (Semester One, 1008, Week Seven).

Semester Five students emphasized the need to understand the relationship between the patients’ multiple diseases and the prescribed medical treatment:

... it (geriatric patients) have more issues to deal with and more medications and diseases... I’m excited that I’ll be able to use my knowledge in all areas of nursing... (Semester Five, 5004, Week Six).

Geriatrics is challenging in so many levels.... they have so many co-morbidities that need attention, secondly they have so many meds that they are taking that need to be monitored... (Semester Five, 5005, Week Six).

I am knowledgeable about disease and the ones I don’t know I am glad to look them up. My weakness is medications because I don’t know many meds (except those of my patient)... (Semester Five, 5004, Week Six).

From the quotes above, Semester Five students find it a challenge to establish links between patients’ treatments, multiple diseases and the nursing assessments and interventions that are required. The ability to independently make connections and ask relevant questions demonstrates a higher level of thinking, a skill which is essential for a graduating nurse to possess.

Another marked difference between the two student groups is the idea of professional education. The concept of acquiring knowledge beyond graduation from nursing school has been addressed in 75% of the journals of Semester Five students. They acknowledge that issues in health care develop very quickly and that the rapid
changes in science, medicine and health require nurses to engage in professional education on an on-going basis:

...I feel there is still so much I don't know. There are always new things to discover in nursing which is one of the reasons that I choose this profession. ...I see myself as a real student, constantly growing and developing...continuously learn and discover new things (Semester Five, 5003, Week Six).

2.3 Description of Results Pertaining to Research Question Three

Research question three asks the following: what level of thinking (analysis) do students in a three-year nursing diploma program typically use when reflecting on their clinical practice?

In order to respond to question three, clinical journals from week two and week seven (for Semester One group) and week two to week six (for Semester Five group) were examined and grouped under three different levels. Each level represented a "level of thinking/analysis" and was based on a coding framework developed by Cuppernull et al (as cited in Plack et al, 2007, p.287). Level I: data gathering includes knowledge recall and comprehension; Level II: data analysis contains the categories of application and analysis while Level III: conclusion drawing, includes evaluation and synthesis. The coding schema developed and used by Cuppernull et al (as cited in Plack et al, 2007, p.287) is based on Bloom’s Taxonomy for the Cognitive domain.
Table 4
Levels of thinking engaged by Semester One and Semester Five Student Groups

<table>
<thead>
<tr>
<th>Level of Thinking</th>
<th>Semester One (n=20)</th>
<th>Semester Five (n=13)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level I: Data gathering</td>
<td>11 (55%)</td>
<td>5 (35.7%)</td>
</tr>
<tr>
<td>Level II: Data analysis</td>
<td>6 (30%)</td>
<td>3 (21.4%)</td>
</tr>
<tr>
<td>Level III: Conclusion drawing</td>
<td>3 (15%)</td>
<td>5 (35.7%)</td>
</tr>
</tbody>
</table>

n = number of clinical journals

Table 4 describes the distribution of the two student groups among the three levels of thinking. As illustrated by Table 4, all students engage in all three levels of thinking/analysis as described by Cuppernull et al (as cited in Plack et al, 2007, p.287).

However the majority of students from both Semester One and Semester Five groups engage in either thinking at Level I or Level III. Reflective narratives that were coded at Level I described events or issues that occurred in clinical sessions. Although students explained how and why the events or issues occurred (comprehension), they examined the issues from one perspective only; students did not analyze the issues and events from multiple lenses.

Similarly, narratives that were coded at Level II: data analysis, explored the issues from multiple perspectives but did not move beyond this level to Level III: conclusion drawing. Students wrote about possible causes of the events however did not propose alternative solutions or nursing actions that they would implement.
2.4 Description of the Results Pertaining to Research Question Four

Research question four asks the following: is there a relationship between the amount of clinical practice and the level of analysis that students in a 3-year nursing diploma program typically use when reflecting on their clinical practice?

In attempting to respond to this question, it can be noted that there is a distinct difference in the level of thinking that each student group engages in. According to Table 4, 55% of Semester One students have been coded to engage in thinking at Level I: data gathering while the 35.7% of Semester Five students engage in both Level I: data gathering and Level III: conclusion drawing.

Interestingly, the level of thinking demonstrated in the Semester One clinical journals follow a predictable path with 55% of Semester One student journals grouped under Level I: data gathering. This level is the most basic level of thinking with Bloom's categories of "knowledge recall" and "comprehension" constituting the abilities found in Level I. Level III: "conclusion drawing" is the most challenging level of thinking with 15% of Semester One student journals grouped in this level.

In contrast, 35.7% of Semester Five student journals were categorized under the highest level of thinking, Level III: conclusion drawing and synthesis which demonstrates that some graduating student nurses have achieved a higher level of thinking. The ability to engage in higher-order thinking and analysis is essential for nurses, particularly now, when nurses are expected to make clinical decisions based on an analysis, evaluation and synthesis of patient assessment data. However, the same percentage (35.7%) of Semester Five clinical journals also reflects the most basic level of thinking Level I: data gathering.
3. SUMMARY OF FINDINGS

To review, after an analysis of the reflective narratives of the Semester One and Semester Five groups, the following eight themes emerged:

1. Ability to provide basic nursing care;
2. Ability to communicate with patients;
3. Importance of collaboration among colleagues;
4. Ability to manage time efficiently;
5. Discussion of an emotional response;
6. Description of a critical incident;
7. Continuous learning within the profession;
8. Professionalism during clinical experience.

Although common themes surfaced from the reflective narratives of both Semester One and Semester Five groups, the distinct difference between the two groups is the perspective in which they examine clinical experiences. The Semester One group was found to have a narrow field of vision and focus on one issue at one time. The Semester Five group was much more extensive in their perspective and viewed their patients and clinical issues in a more holistic light.

Both student groups engaged in the three levels of thinking as described by Cuppernull et al (as cited by Plack et al, 2007, p.287) and in the six levels of thinking outlined by Bloom. The Semester One group’s progression through the different levels of thinking followed a predictable path with the majority of the group coded at Level I, the most basic level. Although the Semester Five group had 35.7% of their narrative journals coded at Level III, a higher level of thinking, the same percentage of journals were also coded at the most basic level of thinking, Level I. The high percentage at Level I was unexpected particularly from the Semester Five group.
CHAPTER SIX: DISCUSSION AND CONCLUSION

1. DISCUSSION

The reflective journals provide nursing students a forum to discuss issues and events that they felt were significant to them. Students may choose to review and examine their clinical day and the nursing actions they implemented. Or they may examine and question the clinical decisions they made and explore other possible alternatives. This opportunity to "reflect-on-action" is where new knowledge is constructed and is based on the examination and analysis of the experience, thought process and reflections that the student engages in after the event. Schon (1987) clearly states that it is a combination of "tacit" and scientific knowledge that allows professionals to overcome the ill-structured problems that are usually encountered in real-life situations.

2. ANALYSIS OF THE RESULTS

The following section will address the results that have emerged from the content analysis of the narrative journals.

2.1 Exploration of Issues/Events in the Reflective Journals of First and Fifth Semester Nursing Students

The analysis of the reflective narratives written by the two student groups reveals ideas that are consistent with the themes that were identified in studies conducted by Newton (2000) and Matthew-Maich et al (2000). Interestingly, both
studies, as well as this research study, concluded that the amount of clinical experience influenced the student’s ability to reflect on events. Matthew-Maich et al (2000) discovered that “post diploma participants (diploma nurses who return to university to complete an undergraduate degree in Nursing) and those that were close to graduation derived more benefits from it (reflective Profile)” (Matthew-Maich et al, 2000, p. 319). In addition, Newton’s (2000) study found that the area where the students completed their clinical placement “triggered reflection”. Although both studies concluded that the amount of clinical experience affects the students’ ability to reflect, the studies do not define or describe “reflective ability”.

2.2 Exploration of the Relationship between Clinical Experience and Clinical Issues

Although Semester One and Semester Five student groups reflect on the same themes, the difference lies in the perspective in which the reflection occurs. Semester One students focus on the issue at hand and requires guidance to even consider other aspects of the patient’s life such as past medical history or current lifestyle that may influence their recovery. The Semester Five group explores and examines events and clinical issues from a global perspective and through a holistic lens. They are able to consider factors other than those that are patient-related that may influence the health and well-being of a patient. In this case, one Semester Five student was able to link how the political and financial issues occurring in health care can affect her patient’s overall medical condition. Newton (2000) discusses that students without previous clinical experiences “were only able to make simplistic connections between theory and practice” while students with “prior experience of nursing, demonstrated evidence of relating what they had been taught in class to their experiences in practice” (Newton, 2000, p. 193). This concept is also emphasized by Dewey (1997) when he writes, “every experience lives on in further experiences” (Dewey, 1997, p. 27). The Semester Five group seems to use the knowledge they
have gained through reflection of the initial experience and apply it to subsequent clinical experiences.

2.3 Exploration of the Level of Thinking of First and Fifth Semester Nursing Students

There are six categories of thinking in Bloom’s Taxonomy for the cognitive domain: a) knowledge recall, b) comprehension, c) application, d) analysis, e) evaluation and f) synthesis. The coding schema developed by Cuppernull et al (as cited in Plack et al, 2007, p.287) collapsed the categories of knowledge recall and comprehension under one level, Level I. The categories of application and analysis were placed under Level II and the two remaining categories of evaluation and synthesis were classified under Level III. This study demonstrates that students from both Semester One and Semester Five engage in all three levels of thinking and therefore in all six categories of thinking of Bloom’s Taxonomy (refer to Table 1).

2.4 Exploration of the Relationship between Clinical Experience and Level of Thinking

There is a difference between the levels of thinking demonstrated by both groups. As expected, more than half (55%) of the Semester One group demonstrated very basic thinking (Level I) and only 15% of Semester One students engaged in the higher-order thinking (Level III) and a little more than a third (35.7%) of the Semester Five group demonstrated evaluation and synthesis (Level III thinking). As we see from studies by Newton (2000), Matthew-Maich et al (2000) and Forneris and Peden-McAlpine (2007), the amount of clinical experience a student has under her belt does influence the level of thinking. Newton (2000) indicates that undergraduate students move through “a continuum over three years from initially not being able to relate theory with practice” through actually “relating theory with practice” (Newton, 2000, p. 193). Forneris and Peden-McAlpine (2007) also found that novice nurses
progressed from a “sequential, rules-oriented thinking style (based on unit policies, preceptor directives) to a more contextual style of thinking (e.g. incorporating past experiences, knowledge and patterns in light of the care situation)” (Forneris and Peden-McAlpine, 2007, p. 417). Although both studies refer to critical thinking, a similar conclusion can also be drawn for reflection. Studies conducted by Kuiper and Pesut (2004), Fonteyn and Cahill (1998) and Forneris and Peden-McAlpine (2007) describe the strong link between reflection and critical thinking; as described by Forneris and Peden-McAlpine (2007), “reflection is a key mechanism” in critical thinking (Forneris and Peden-McAlpine, 2007, p. 411).

Interestingly, 35.7% of the Semester Five group demonstrated both a basic level of thinking (Level I) and higher-order thinking (Level III). The expectation is that students with more clinical experience would consistently exhibit a higher level of thinking; in this case, the majority of the reflective narratives would demonstrate either Level II (application and analysis) or Level III (evaluation and synthesis) thinking.

3. STRENGTHS AND LIMITATIONS

The results of this research are consistent with the findings from other studies conducted on reflection in nursing. The themes that were identified by both student groups were very similar to the themes that were discussed in the study by Matthew-Maich et al (2000) and Newton (2000).

Additionally, this research demonstrated the categories and levels of thinking that Semester One and Semester Five students typically use. Studies conducted by Matthew-Maich et al (2007) and Newton (2007) concluded that participants with more clinical experience demonstrated quality reflective narratives. This research study also demonstrates this to be true. The study also illustrated the
link between students using higher order thinking processes and the ability to engage in greater reflection.

From the students that were approached regarding participation in this study, most decided to participate and continued to do so throughout the length of the study. Their narrative journals were a source of rich and descriptive data, which provided a unique perspective on the thoughts and feelings of nursing students caring for the elderly population.

The call for "rigorous research that provides evidence regarding the effectiveness of reflection" (Carroll et al. 2001, p. 19) has been partially answered through this study. This paper also contributes to the small body of research focusing on nursing students at the college (diploma) level.

There were several limitations of this research study. First, this research did not include a test for inter-rater reliability. A second reader could have sorted out a sample of the journal entries using the coding system developed. That would have increased the validity of the process. Nevertheless, there was an intra-rating system put into place. This included having a time delay of two months between when the researcher reviewed the Semester One journals and the Semester Five journals. It must be noted that the researcher used the same coding system for both Semester One and Semester Five groups. This process reflects internal consistency and speaks to the validity of the study. Furthermore, the findings from this research are balanced by the consistency in the data between this study and studies conducted by Matthew-Maich et al. (2000) and Newton (2000).

Secondly, in terms of design, a longitudinal study would have been ideal for this type of study. Following the same group of students during the three years in the nursing program would provide more validity to the data; it could also potentially
address the question of whether the students’ level of thinking changes as they advance through the program.

Thirdly, potential confounding variables in this study include mother tongue (language) of the student participants and lack of time to complete a thorough reflective narrative due to students’ personal responsibilities (child care, home care, financial).

4. Future Directions and Recommendations

The current environment in health care requires nurses to have sound clinical reasoning and decision-making skills. In order to produce nurses that are not only clinically competent but have the ability to think critically, reflection in nursing education curriculum is integral.

This study illustrates the benefits of promoting reflection in nursing education and demonstrates that as nursing students progress through the curriculum, their knowledge, ability to reflect and to think at a higher level will increase. Implementing more reflective-based activities as learning strategies helps to develop metacognitive and critical thinking abilities, which are essential skills for today’s nurse to possess.

Although nurse educators are cognizant of the benefits of reflection, students may not be aware of how writing reflective papers will help to develop their ability to think critically. Informing students about the importance of the reflective assignments may help engage students in the work and encourage more openness and honesty in their reflections.
Sharing anonymous reflective narratives of students from all nursing courses in the program with nurse educators will help to illustrate the levels of thinking that students are demonstrating at different time periods within the program. Reading the reflective journals also provides perspective on the students' experiences in a variety of clinical settings.

At the same time, a periodic review and discussion of the reflective questions that are being used in all the nursing courses can be conducted. Engaging in this activity will make nursing faculty aware of the type and level of questions that are being asked in different courses and to ensure that the guided questions (scaffolds) that are used in first year courses are slowly taken away as the student advances further into the nursing program. Promoting discussion between faculty members about their teaching methods on reflective practice may shed light on other reflective based learning activities.

Studies by Burnard (1995), Hannigan (2001) and O'Connor, Hyde and Treacy (2003) describe the challenges faced by nurse educators on using reflection in their teaching. Although many educators are aware of the importance of reflection in the curriculum, many are “vague about exactly how they taught reflection to students” (Burnard, 1995, p. 1172) or teach reflection using only the critical event analysis technique. Faculty must feel comfortable and confident in their abilities to teach, and implement a variety of reflective practice activities within the nursing education curriculum.

Implementing the concept of reflection and reflective practice in the nursing curriculum requires adequate preparation of faculty. This can be accomplished through a “nursing journal club” where nurse educators can read and share pedagogical articles on reflection and professional education may clarify how they teach reflection. Regular workshops or pedagogical conferences that connect faculty who have experience in using reflection in their teaching to those who are relative
novices in this field, can help in the development a curriculum that not only responds to the need to foster critical thinking, reflective practitioners but that also addresses the challenges of reflection from a moral and professional perspective.

Future research in this area should include exploring the relationship between level of thinking (which is a cognitive process) and academic achievement, examining the perception of nursing faculty on its use of reflection as a learning strategy in the nursing curriculum and gathering information on students' perspectives of the use of reflection in nursing education.
BIBLIOGRAPHICAL REFERENCES


APPENDIX A

STUDENT'S CONSENT
Consent to Participate in a Study Entitled: Reflections of Students Enrolled in Diploma Nursing Program: A Descriptive Study

**Project Title:**

Reflections of Students Enrolled in a Diploma Nursing Program: A Descriptive Study

**Researchers:**

Michelle Maguigad
Caroline Hanrahan

**Introduction:**

You are being invited to participate in this research study because you are a student currently registered in the Nursing Program at Dawson College. Before deciding to participate in the study, you should clearly understand its requirements. This document provides information about the study. Please read it carefully and ask the researcher any questions you may have. She will discuss the study with you in detail should you wish this. If you decide to participate, you will be asked to sign this form and a copy will be provided to you.

**Purpose of the Study:**

The purpose of this study is to understand the nature of reflective thinking of nursing students as it relates to their clinical practice. The research project is also a requirement for a Master’s degree in Education.

**Study Procedures:**

If you agree to take part in this study, you will be asked to complete a survey that requires 20 to 30 minutes of your time. The survey measures the amount of clinical experience you have accumulated and the type of clinical placements you have experienced.

Your clinical journals for the Fall 2009 semester will be copied for data analysis. Each week, copies of your clinical journals will be collected by your clinical teacher and placed in a sealed envelope and will be kept in a locked cabinet that can be only accessed by the secretary of the Mathematics Department. The copies of the clinical journals will be given to the researcher at the end of the Fall 2009 semester, after the final grades have been entered. The demographic data and the student reflections will be destroyed once the research paper has been submitted and accepted by the Universite de Sherbrooke.
Consent to Participate in a Study Entitled: Reflections of Students Enrolled in Diploma Nursing Program: A Descriptive Study

The results from this study may be published however your identity will not be revealed. Your confidentiality will be protected.

**Potential Risks:**

There are no potential risks related to participation in this study.

**Potential Benefits:**

There will be no direct benefit to you in the short-term, however future nursing students will benefit from the findings that will emerge from this study.

The information collected from this study may help nursing educators to understand the role that reflection plays in college level nursing programs. It could aid nursing educators to develop and implement reflective learning activities that will contribute to the clinical reasoning and critical thinking skills of the next generation of nurses.

The information from the study may add to the small but growing body of knowledge on reflection and reflective practice in nursing education.

**Confidentiality:**

All personal information obtained during this study will be kept confidential. You will not be required to provide your name on the survey. The information collected from the survey will need to be linked to the reflective narratives. You will be provided with a code number which you will use on the survey questionnaire and on your journals. Only the researcher will have access to a list of each participant’s code (in case codes are forgotten). This list will be kept in a locked file cabinet that only the researcher has access to and the list will be destroyed immediately after completion of the study.

Your personal information will include the nature and amount of clinical experience you have accumulated, the nursing course in which you are currently registered and your level of education.

**Voluntary Participation/Study Withdrawal:**

Your participation in this study is strictly voluntary and you can refuse to participate. If you do not want to participate, draw a line through each page of the consent form.
Consent to Participate in a Study Entitled: Reflections of Students Enrolled in Diploma Nursing Program: A Descriptive Study

If you choose to participate, you may discontinue your participation at any time without explanation, and without penalty or loss of benefits to which you are otherwise entitled simply by contacting the researcher, MICHELLE MAGUIGAD, in person at office 6B.14/6B.9, through email: mmaguigad@dawsoncollege.qc.ca or by telephone at 514.931.8731 extension 1701 or 1698. Should you have any concerns regarding your participation in this research project, you may also contact the Dawson College Ombudsperson, Michele Pallett at office 2E.7-2, through email at mpallett@dawsoncollege.qc.ca or by telephone at 514.931.8731 extension 1191. If you discontinue your participation, you will suffer no prejudice regarding your professional records.

Declaration of Consent:

I have read the contents of this consent form, and I voluntarily agree to participate in this research study entitled: Reflections of Students Enrolled in Diploma Nursing Program: A Descriptive Study, understanding that I may withdraw my participation at any time. I have had the opportunity to ask questions and all of my questions have been answered to my satisfaction. I have been given sufficient time to consider the above information. I will be given a copy of this signed and dated Informed Consent Form. By signing this consent form, I am not giving up any of my legal rights.

I understand the objectives of this study and agree to participate

<table>
<thead>
<tr>
<th>Student Signature</th>
<th>Date</th>
</tr>
</thead>
</table>

For students younger than 18 years old:

<table>
<thead>
<tr>
<th>Parent/Legal Guardian Signature</th>
<th>Date</th>
</tr>
</thead>
</table>
We agree to respect the confidentiality of the information obtained:

________________________________________  ____________
Researcher Signature                        Date

(Please provide a copy of the informed consent to the participant)
APPENDIX B

FACULTY'S CONSENT
Consent to Participate in a Study Entitled: Reflections of Students Enrolled in Diploma Nursing Program: A Descriptive Study

Project Title:
Reflections of Students Enrolled in a Diploma Nursing Program: A Descriptive Study

Researchers:
Michelle Maguigad
Caroline Hanrahan

Introduction:
You are being invited to participate in this research study because you are a faculty member of the Nursing Program at Dawson College. Before deciding to participate in the study, you should clearly understand its requirements. This document provides information about the study. Please read it carefully and ask the researcher any questions you may have. She will discuss the study with you in detail should you wish this. If you decide to participate, you will be asked to sign this form and a copy will be provided to you.

Purpose of the Study:
The purpose of this study is to understand the nature of reflective thinking of nursing students as it relates to their clinical practice. The research project is also a requirement for a Master’s degree in Education.

Study Procedures:
If you agree to take part in this study, you will be asked to submit coded copies of your students’ (those who have agreed to participate in the research study) clinical journals for data analysis. Each week, you will collect the coded copies of the students’ clinical journals and place them in a sealed envelope and submit the envelope to the secretary of the Mathematics Department. The envelopes will be kept in a locked cabinet that can be only accessed by the secretary. The copies of the clinical journals will be given to the researcher at the end of the Fall 2009 semester, after the final grades have been entered. The demographic data and the student reflections will be destroyed once the research paper has been submitted and accepted by the Université de Sherbrooke.
Consent to Participate in a Study Entitled: Reflections of Students Enrolled in Diploma Nursing Program: A Descriptive Study

Potential Risks:

There are no potential risks related to participation in this study.

Potential Benefits:

There will be no direct benefit to you in the short-term or long-term however future nursing students will benefit from the findings that will emerge from this study.

The information from the study may add to the small but growing body of knowledge on reflection and reflective practice in nursing education.

Voluntary Participation/Study Withdrawal:

Your participation in this study is strictly voluntary and you can refuse to participate. If you do not want to participate, draw a line through each page of the consent form.

If you choose to participate, you may discontinue your participation at any time without explanation, and without penalty or loss of benefits to which you are otherwise entitled simply by contacting the researcher, MICHELLE MAGUIGAD, in person at office 6B.14/6B.9, through email: mmaguigad@dawsoncollege.qc.ca or by telephone at 514.931.8731 extension 1701 or 1698.
Declaration of Consent:

I have read the contents of this consent form, and I voluntarily agree to participate in this research study entitled: Reflections of Students Enrolled in Diploma Nursing Program: A Descriptive Study, understanding that I may withdraw my participation at any time. I have had the opportunity to ask questions and all of my questions have been answered to my satisfaction. I have been given sufficient time to consider the above information. I will be given a copy of this signed and dated Informed Consent Form. By signing this consent form, I am not giving up any of my legal rights.

I understand the objectives of this study and agree to participate

________________________________________________________________________

Faculty Signature ___________________________ Date ____________________________

We agree to respect the confidentiality of the information obtained:

________________________________________________________________________

Researcher Signature ___________________________ Date ____________________________

(Please provide a copy of the informed consent to the participant)
APPENDIX C

DEMOGRAPHIC QUESTIONNAIRE
DEMOGRAPHIC QUESTIONNAIRE

Identifier Code: __________

Demographic Background:

1. Age: _____ years old

2. Gender (circle one):
   Male   Female

3. What is the first language you learned to speak? ______________

4. What was the language of instruction at your last school? ______________

Clinical Background and Experience:

5. Which nursing course are you currently enrolled in? Circle one
   180-110
   180-514

6. Have you taken this course before? Circle one
   Yes
   No
7. **ONLY FOR STUDENTS ENROLLED IN 180-514 NURSING COURSE.** If you are enrolled in 180-110 (1st semester nursing course), proceed to Question 10.

List and describe the nursing units where you have been assigned to for your clinical stages.

<table>
<thead>
<tr>
<th>Nursing Course</th>
<th>Please mark an &quot;X&quot; if you repeated this course.</th>
<th>Department</th>
<th>Type of Nursing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example: 180-110</td>
<td></td>
<td>8M</td>
<td>General Medicine</td>
</tr>
<tr>
<td>180-110</td>
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<td>180-423</td>
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<td></td>
</tr>
</tbody>
</table>

8. Did you have an externship experience this past summer? **Circle one.**

   YES                                   NO

If you DID NOT have an externship experience, please skip Question 9 and proceed to Question 10.

9. What type of nursing unit did you complete your externship experience? **Circle all that apply.**

   General medical  General surgical  Postpartum
   Gerontology      Psychiatry       Rehabilitation Center
Long-Term Care

10. Prior to entering the nursing program, did you ever work in the health care field? 
   Circle the correct answer.
   
   YES
   NO

If you answered "NO" to the above question, proceed to Question 13.

11. In what capacity did you work in the health care field? Choose all that apply.
   
   ____ Orderly/Prepose Aux Beneficiare (PAB)
   ____ Transport attendant
   ____ Unit Coordinator/Ward Secretary
   ____ Other: __________________________ (please specify)

12. How long did you work in that position (years/months) ______

13. Are you currently working in the health care field? Circle the correct response.
   
   YES
   NO

If you answered "NO" to the above question, proceed to Question 17.

   
   ____ Orderly/Prepose Aux Beneficiare
   ____ Transport attendant
   ____ Unit Coordinator/Ward Secretary
   ____ Other: __________________________ (please specify)

15. How long have you worked in that position (years/months) ______

16. How many hours do you work per week in the above position? ______
17. Other than young children, have you cared for someone who needed assistance with their activities of daily living (bathing, cooking, eating, changing clothes, administering medications)? **Circle the correct response.**

YES  
NO

**If you answered “NO” to the above question, proceed to Question 21.**

18. How long have you cared for this individual (years/months)  

19. How many hours do/did you care for this individual per day?  

20. How often do/did you care for this individual on a weekly basis?  

Thank you for your time!
APPENDIX D

WEEKLY OPEN REFLECTION: SEMESTER ONE STUDENT GROUP
WEEKLY OPEN REFLECTION: SEMESTER ONE STUDENT GROUP

FALL 2009

Narrate briefly a significant occurrence that is related to your clinical experience. Include your thoughts and feelings. For example, what made you feel good, did something upset or frustrate you, what did you observe that was of interest to you.
APPENDIX E

WEEKLY OPEN REFLECTION: SEMESTER FIVE STUDENT GROUP
WEEKLY REFLECTION: SEMESTER FIVE STUDENT GROUP

FALL 2009

Weeks II - V:
Identify your learning goals for next week. Include your thoughts and feelings and/or feedback.
Write your thoughts and feeling about clinical this week.

Week VI:
How have you changed/grown in the last five weeks in how you view:

- yourself as a student?
- your patient?
- Geriatrics?