



جامعة كالجاري في قطر
UNIVERSITY OF CALGARY IN QATAR



CTL Newsletter

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The Editorial

Hello UCQ!

What a whirlwind Fall semester! Can't believe things are already winding down, and we're preparing for the Fall break (and FIFA madness!). Despite the whirlwind, student learning has always been at the forefront, as this edition of the CTL Newsletter showcases.

Simulation is highlighted throughout, with Ambi Sinnasamy examining its impact on undergraduate nursing students, Sharah Haque reflecting on her use of a simulation skills day, and Kristi Yassine questioning whether simulation should be incorporated into courses earlier. Shehnaaz Mohamed introduces a framework to assess students in the clinical setting using entry-to-practice competencies, and Faisa Farah demonstrates how concept maps can facilitate learning with students. Frances Kalu, Carolyn Wolsey and Parivash Enghiad wrap up the newsletter by sharing how students perceive active learning strategies used in the classroom.

Thank you to everyone who volunteered your time to proofread and provide feedback to the authors. Special thanks to Sharon Carroll (UCQ) and Shannon Parker (University of Calgary) for their review contributions.

Happy reading and Enjoy your Fall break!

Tawny Lowe
Editor



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CTL News



HPE Assessment Showcase Organizing Committee Members

By the time September rolled by, it seemed like the semester had been going on forever with the early start in July. Activities at the CTL level were directed at the faculty, program, institutional level. Faculty members were instrumental in the delivery of the programs at the CTL and the semester would not have been a success without them. Thank you so much!

A semester highlight is the New Faculty Orientation session designed to support new faculty as they transition into teaching at UCQ. The orientation process also includes the Teaching Squares Program that provides ongoing classroom observation and mentorship by the Teaching Mentors Kristi Yassine, Lida Larson, Melody Blanco, and the Teaching and

Learning Specialist. In addition, this semester we started a New Faculty Learning Community: Scholarship of Teaching, facilitated by Dilshad Pirani and the Teaching and Learning Specialist, to provide a safe space for new faculty members to engaged in co-creating knowledge. Based on feedback received, these resources have provided immense support for new faculty as the work towards enhancing learning at UCQ.

Wishing everyone a wonderful holiday and a brilliant World Cup experience. It has been wonderful working with you all through these years. Adieu!

Dr. Frances Kalu
Teaching and Learning Specialist
Lead, Centre for Teaching and Learning

Impact of Simulation on Students in Undergraduate Nursing Programs

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Photo courtesy: Trnava University – www.unsplash.com

Introduction

Healthcare is ever changing, and patient demands are becoming more complex. It is crucial for nurses to stand confident in their practice to ensure that high-quality care is being delivered to a challenging patient population. Simulation has become a popular method of teaching as it offers a unique educational experience of practicing skills in a safe and controlled environment without harming a real patient (Bland & Tobbell, 2016). Simulation helps to reduce the barrier between theory and practice and aims to generate new knowledge to integrate into learners' cognition, encouraging students to discover and reflect on their abilities (Zang et al., 2019). This paper aims to explore how simulation increases nursing student confidence and critical thinking and integrates theory into practice.

Background

Simulation has been used throughout history, with its first mention documented around 500 CE in the ancient Sanskrit medical and surgical texts of the Sushrate Samhita (Owen, 2016). Fast forward to the modern era of healthcare, the first recorded use of simulation traces back over 250 years ago to the early eighteenth century, where it was “advocated to reduce the risk of injury caused by students learning on patients and to prepare students to manage unusual events that endangered life” (Owen, 2016, p. 17). During World War II, the military utilized simulation with debriefing, a process of inquiry and evaluation during which “troops gathered to reconstruct and describe what had happened to reduce psychological stress. These postcombat discussions, or performance critiques, eventually became a fundamental component of battle simulation exercises for soldiers in training” (Hunter, 2016, p. 174). Lastly, with its origins in the 1960s came high-fidelity simulation, which has spread to various disciplines and continues to make a meaningful impact on simulation-based training today (Massoth et al., 2019).

The effects of simulation are evident throughout Bachelor of Nursing programs, in which simulation-based learning has become a more prominent teaching approach. The primary purpose of simulation-based learning is to prepare individuals for practice and ultimately, to positively impact patient health outcomes (Kimhi et al., 2016).

Search Strategy

A preliminary literature search was conducted via EBSCO, CINAHL, PUBMED, Science Direct, ProQuest and Google Scholar using the keywords: high-fidelity simulation, clinical simulation, debriefing, and nursing. The search was further refined to include high-fidelity simulation used in hospitals and simulation debriefing and was limited to peer-reviewed articles published between 2011 and 2019.

Theoretical Foundations

Simulation has become a popular method of teaching due to its strong foundations in adult learning theories (Rutherford-Hemming, 2012). The combination of adult and experiential learning as the theoretical foundation of simulation creates the potential to change clinical practice and improve patient outcomes (Zigmont, Kappus, & Sudikoff, 2011). Simulation learning is rooted in various adult learning theories, specifically cognitive, social and constructivist learning theories. Cognitive learning theory can be summarized as the learner's mental organization of learned information, existing knowledge and the processes of perceiving, comprehending and storing new information. Simulation learning is related to social learning theory in that students learn by observing others. Constructivist learning is described when meaning is connected to an experience. Learning occurs as an active process involving dialogue, collaboration, and cooperation (Rutherford-Hemming, 2012).



Photo courtesy: www.pixabay.com

With Kolb's experiential learning theory, four components of learning occur in a cyclical manner: concrete experience, reflective observation, abstract conceptualization and active experimentation (Larew, 2017). In relation to simulation, the concrete experience is the learner engaging in the simulated learning environment. Reflective observation occurs during

debriefing where the learner participates in self-evaluation and identifies learning needs based on their action or inaction during the simulation. Abstract conceptualization is the period where the educators facilitate the learners to make connections between their new knowledge and future experiences. Lastly, active experimentation involves applying the new knowledge in actual practice to promote long-term retention of knowledge (Zigmont, et al., 2011; Chmil, Turk, Adamson, & Larew, 2015).



Photo courtesy: www.pixabay.com

Increases Confidence

Kimhi et al. (2016) found that simulation introduced within the first year of nursing courses increased self-confidence and self-efficacy for the nursing process. Students with increased self-confidence had a better chance at exceeding clinical goals and were more likely to attempt their clinical skills without fear (Kimhi et al., 2016). Additionally, simulation enhances students' skill development through self-reflection and leads to increased confidence. Most learning takes place during the debriefing phase where students are encouraged to reflect on their performance and learn what is required for future improvement. Deep, thoughtful reflection undertaken by the participant and facilitator informs enhanced practice pathways, which improve the students' clinical practices by enhancing skills development; improving confidence levels, critical reasoning and problem-solving ability; and increasing feelings of empowerment. Developing skill competency enhances nursing students' confidence as well as patient safety and quality of care (Mulvogue et al., 2019).

Promotes Critical Thinking

Simulation encourages student nurses to utilize critical thinking skills to prioritize and make vital decisions that will assist them in caring for their patients in the clinical setting. It enhances students' comprehension as well as an ability to recognize gaps in their knowledge base and to ascertain innovative methods to overcome obstacles.



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Simulation fosters an ability for students to gain a specialized knowledge base pertaining to uncommon patient scenarios and conditions and improves their ability to manage a patient workload while having to think quickly. According to Mulvogue, Ryan, and Cesare (2019), self-reflection is the core component in simulation that enhances the student's critical thinking skills. The educator's ability to question and promote self-reflection is crucial to facilitate the student's critical thinking and to develop deeper learning (Mulvogue et al., 2019). Evidence supports that students who practice in a simulation setting demonstrate higher standardized critical thinking test scores (Gant et al., 2018).

Integration of Theory into Practice

Nursing students are graduating during a time of increasingly complex healthcare conditions requiring

them to think critically and respond with effective clinical judgement. Simulation cultivates a holistic nursing education which provides students with an opportunity to transfer knowledge learned in the classroom to the clinical setting. Simulation experiences promote advancement of nursing student's technical skills and increased competence to interpret and ascertain pertinent patient data. Hence, students who participate in simulation exhibit a capacity to relate the cognitive and behavioral components of their education. Nursing students note an increased ability to grasp challenging course content and apply it to practice when simulation is utilized. Reflection and debrief with peers post-simulation generates a multitude of perspectives which further strengthens learning and connection to practice (Sundler et al., 2015).

Conclusion

As the future of nursing continues to evolve, it is essential to look for new interactive ways to educate nurses away from the bedside. Simulation provides individuals with an environment in which to practice and perfect skills and increase self-confidence prior to stepping back to the bedside. It is evident that the benefits associated with simulation makes it among the best clinical teaching approaches available within the discipline of nursing. Nurses are the center hub of what can create good health outcomes in people and empowering nurses with the best clinical teaching approaches is the best offensive strategy for advancing healthcare education into the future.



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Aligning Formative to Summative Assessment Using Entry-to-Practice Nursing Competencies

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Formative Assessment in Clinical Area

Teaching and learning in clinical settings involve situational learning that is dynamic and unpredictable most of the time. It allows the student to apply learned theories and engage in complex levels of reasoning. The use of ongoing assessment in clinical has its strength in providing a roadmap to nursing students on achieving their entry-to-practice nursing competencies (Gaberson et al., 2018). It also contributes to student learning as it reinforces good practice and provides the motivation for students to strive to meet the level of competency required in the clinical practicum (Burgess & Mellis, 2015). The main purpose of formative assessment is to inform students of their progress in preparation for the summative evaluation. It also provides information to the instructor about the student's strengths and weaknesses. Gaberson et al. (2018) emphasized the

importance of giving formative feedback in clinical settings by stating “for clinical evaluation to be effective, the teacher should provide continuous feedback to students about their performance and how they can improve it” (p. 258). If students do not receive ongoing feedback, they might think everything is going well and will not improve or grow (Burgess & Mellis, 2015; Gaberson et al., 2018).

Practice Formative Feedback Tool

At the University of Calgary in Qatar (UCQ), the Practice Formative Feedback Tool (PFFT) is used in clinical practicum by nursing students and instructors for self-evaluation and feedback. The PFFT is completed on a weekly or daily basis, depending on the clinical course. This tool helps capture student's learning during encounters in a clinical practicum and is levelled at the Basic, Intermediary, and Proficient levels. At the Basic level, students are expected to function with support in routine and predictable situations. At the Intermediary level, students practice with increased independence and require support for situations that are not routine or predictable. At the Proficient level, students are expected to be able to function in more complex situations and anticipate what could go wrong, seeking guidance when necessary. At every level, students are expected to apply knowledge, skills, and attributes to clinical situations they came across.



Photo courtesy: www.pixabay.com

Prompts added to the PFFT guide students in what knowledge, skills and attributes are expected at their level. The prompts were drawn up in a faculty workshop and the new PFFT was piloted. The general feedback from students and faculty was that the tailored prompts worked in clinical and provided direction on what the expectations are.



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<http://www.royalcollege.ca/rcsite/canmeds/canmeds-framework-e>. Adapted with permission.

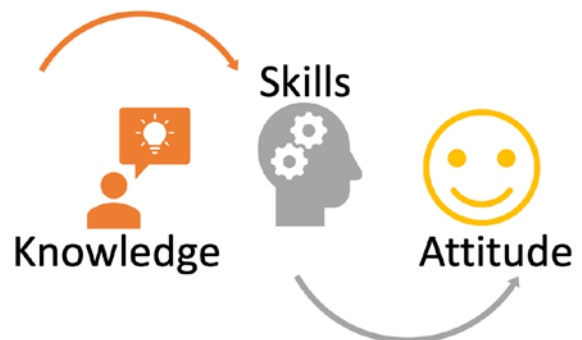
The PFFT helps the student identify areas of strength and areas that need improvement. At the end of their clinical shift, students will self-reflect based on their own practice and discussions with the buddy nurse/preceptor and/or instructor and write comments on their practice under the PFFT categories of Preparation and Organization, Knowledge, and Professionalism. In addition, the PFFT serves as documentation of the student's progress and is used by the student to help them identify what entry-to-practice (ETP) nursing competencies have been met at the midway mark and then at the end of the practicum. These competencies are determined by the nine College of Registered Nurses of Alberta (CRNA) entry level competencies, namely, Clinician, Professional, Communicator, Collaborator, Leader, Advocate, Educator, and Scholar (CRNA, 2019). The PFFT helps students fill out the Final evaluation tool that requires

examples of how they demonstrate the nine CRNA entry level competencies. One of the issues that both faculty and students encounter is how to align the PFFT with the CRNA competencies.

Aligning the PFFT with CRNA Competencies

The solution to linking the PFFT to the Final evaluation tool has been to guide students in identifying what competencies are being met according to the example they have quoted in the PFFT. A study by Koh (2009) revealed that if students do not value formative feedback and see it as a chore, they might not understand the value of the formative feedback and how it connects to the summative evaluation. For students who are successful in using the PFFT, they identify either straight away or later when filling in the Final evaluation tool as to what competency their example supports. The instructor is instrumental in guiding the student when debriefing about their day or when assessing them in clinical to have conversations that are centered around the competencies.

As we continue to develop the PFFT, it is imperative that the instructor also identifies how to assess the student under the three PFFT categories and align them with the CRNA ETP competencies. In response to this need, the author created a framework (Figure 1) by grouping the competencies under each of the PFFT categories using Bloom's Knowledge, Skills, and Attitudes theory of learning (Bloom, 1956). This grouping helps categorize



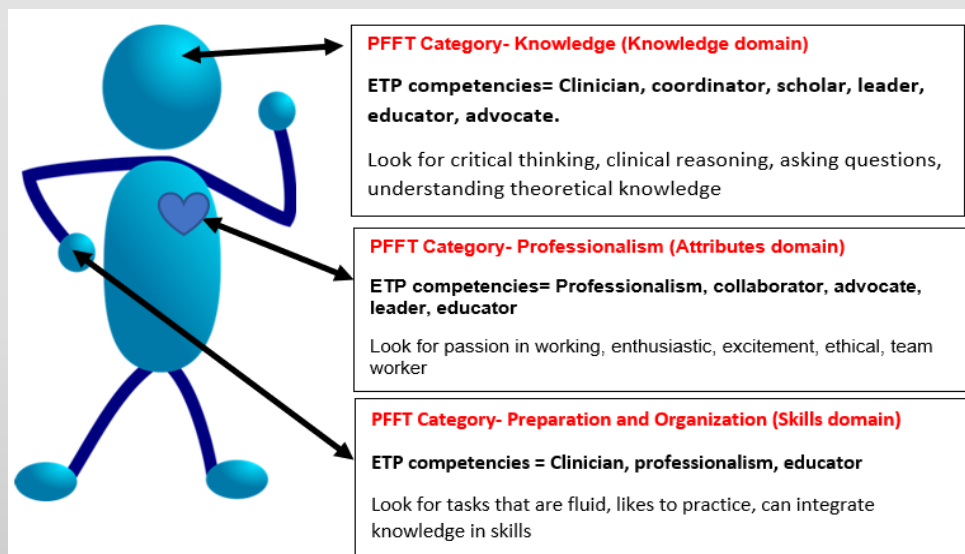
them to give specific information under the different domains and relate it to the ETP competencies. The limitation of using the domains of learning is the view that a demarcation exists between the domains, when in reality in nursing, all the domains overlap and can be in use at one time. An example is a nursing student inserting an intravenous catheter. The student needs adequate knowledge to safely perform the skills and understand the rationale behind each step. The skills will be more fluid if the student has had enough opportunities to perform this procedure. The patient's anxiety level will undoubtedly impact student performance, and situational awareness is very important during performance of any skill. This requires the appropriate attitude, demonstrated through professionalism, the student to be transparent and to not feel offended if the patient refuses. The student should weigh the ethical challenges of performing skills that they are not comfortable with and question their readiness.

Future Work in Formative Assessment

This framework is still in a trial phase and needs to be further developed. It helped the author align the formative with summative assessments in the clinical area. A search of the literature revealed no clear and objective ways of measuring competencies or aligning formative assessment with the ETP nursing competencies. Zasadny and Bull (2015) have eloquently debated this matter in their paper and state that competency measurement remains vague and subjective. The interpretation of the competencies is subjective and varies from one person to another. Redfern et al. (2010) recognize that multiple tools have emerged to assess competency, but there are inadequacies in terms of their reliability and validity. There is still much-needed work to be done on formative assessment and creating a tool that works well for both the instructor and the student in enhancing deep learning and creating nursing students that are more competent and effective at meeting the challenges of nursing.

Figure 1

Framework for Aligning PFFT to ETP Competencies



The framework is not to be used or duplicated without permission of the author

Preparing Undergraduate Nursing Students for Clinical Using a Multi-Mode Simulation Skills Day: An Educator's Reflection

Sharah Haque, RN, BScN, MN
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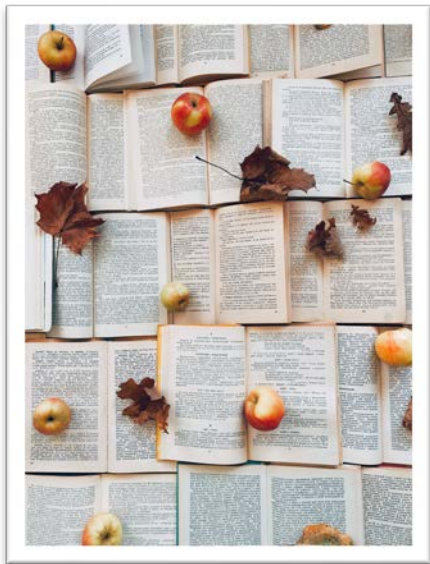


Photo courtesy: www.pexels.com

The few short semesters here at UCQ have been filled with pivotal learnings. Perhaps the most meaningful has been making connections with students' learning needs, in their own unique trajectory, as future nurses within the context of working in healthcare in the Middle East. How can course delivery optimize students' abilities to succeed within nursing? Students possess a myriad of strengths and countless opportunities for growth in clinical based settings (Palmer & Ham, 2017). These are some of the many factors taken into consideration when planning our clinical course 'Nursing Practice for Acute Health', including integrating simulation into the lesson plan and developing concept-based activities, such as

simulation pre-clinical, linking theoretical and clinical concepts to common clinical-based scenarios.

Having been an instructor for several clinical courses before leading the *Nursing Practice for Acute Health* clinical-based course, common gaps consistent across several clinical courses taught were observed. Students struggled with conducting head to toe assessments, making clinical connections and demonstrating knowledge application of basic principles regarding safety in practice. They reported having anxiety and a lack of confidence in performing these skills. Among nursing students, this is not uncommon. Hollenbach (2016) reports increased anxiety levels are normal during clinical when students are providing nursing care. Knowing this, as a strategy, time was spent during clinical aiding students in overcoming these gaps in the effort for them to build confidence and competency. For example, each student was observed conducting a head-to-toe assessment, preparing IV medications and was followed by individual and group debrief. It was rewarding to see students' growth; however admittedly, it was an exhausting process. In addition, although the students were now more comfortable performing these skills, there was less time to discuss correlation of findings and clinical connections. Different strategies were sought for more efficient and proactive ways to help students feel more confident performing skills and assessments before they entered clinical.

What is the point of lessons and activities if it isn't benefitting the learners?

In planning the orientation day for NURS410 Fall 2022 semester, the previous year's course structure was reviewed. There was no time dedicated for skills review and practice on orientation day. However, for other clinical courses, a skills review day was included before clinical and executed successfully. The authors

Hollenbach (2016) and Palmer & Ham (2017) also support the use of pre-clinical orientation and skills review as a strategy to help students feel prepared and less anxious when they enter clinical. Therefore, orientation day for NURS410 was redesigned to include time for skills review. A unique component of this course though, is that clinical placement is divided into two different rotations: Medical Surgical and Mental Health. Half of the students would attend each and then swap placement after six weeks. Separate orientation skills review was developed for each of them. For the MedSurg component, a needs assessment was conducted, and three areas of skills practice were identified: Head-to-toe assessment, IV medication practice and management of acute illness scenarios. The skills practice topics were also aligned with the outcomes in the course outline. In response to the needs assessment findings, two skills labs were developed which included low and mid-range level simulation and relied on resources students had already used in previous courses. The third lab, Management of Acute Scenarios, was created to enhance concept-based approaches in care within the application of a high-fidelity simulation exercise in which the students assessed and managed an acute clinical situation. The simulation was based on scenarios adopted from the Canadian Association of

Schools of Nursing's (CASN) Top Ten Adult Nursing Situations for High-Fidelity Simulation, which recommends complex clinical situations that baccalaureate nursing students should experience before entering practice (CASN, 2019). The idea was, by reviewing content on relevant skills, this would help students feel prepared and less anxious when encountered in practice. After the rotation swap at six weeks, a new batch would start in Med Surg. The skills orientation day was provided again for students about to enter their second clinical rotation.

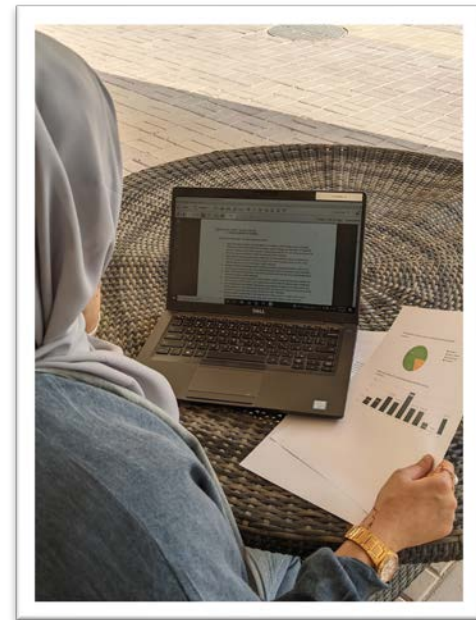


Photo courtesy: Sharah Haque

NEEDS ASSESSMENT

- HEAD-TO-TOE assessment
- IV MEDICATION PRACTICE
- MANAGEMENT OF ACUTE ILLNESS

As an instructor, there is care about every aspect of education delivered having value and meaning. What is the point of lessons and activities if it isn't benefiting the learners? Therefore, it was important to assess if the skills review had any meaningful impact. Evaluating the effect of educational learning interventions are imperative towards understanding student's learning needs as well as identifying areas where lessons can be improved (Hollenbach, 2016). Post-attendance of skills day, students completed a feedback survey about their experience including questions about the helpfulness of



"The acute care simulation that been done in the university was helpful since it helped me to know how to act in a serious situation in order to help patients care"

- Nursing student, NURS410
Fall 2021

"I think the orientation's purpose is to help us to attend the clinical prepared and refreshed with the skills that we have learned about in previous labs. Before attending the orientation, I was anxious, but after the orientation I felt the anxiety get lower and more comfortable and oriented about this setting/clinical"

- Nursing student, NURS410 Fall 2021

"With Mr. Ihab's station, it was helpful because we did the roleplays as a healthcare team for the first time"

- Nursing student, NURS410
Fall 2021

the labs and their anxiety levels entering clinical before and after having attended the skills labs day. Overall, it was found the skills labs were helpful and relevant, and students reported reduced anxiety about entering clinical after having attended the orientation skills day. Similarly, Hollenbach (2016) reports lower anxiety level among students after a simulation workshop, suggesting that simulation can be a helpful tool to support nursing students. Furthermore, in my own observations this semester, students appeared to have better confidence performing head-to-toe assessments and demonstrated better comprehension in making connections during acute clinical situations. During informal conversations,

students also expressed the three simulation labs were especially beneficial in helping them refresh their knowledge and skills they had previously learned. Gore, Hunt, Parker and Raines (2010) saw similar results when they conducted a simulation experience for baccalaureate nursing students in which lower anxiety levels scores were noted. These findings are promising – they suggest a skills review day using simulation may be beneficial in supporting the students' transition into practice in the clinical setting. Next semester, in January, the course will be repeated with a new group of students. The model of the orientation skills day will remain largely the same.

Special thanks for the nursing students, faculty of NURS410 Fall 2022 and ELC lead Mr. Mohammed Al-Hasan and Ms. Shukurat Dotun Sanni.

Using Concept Maps to Enhance Undergraduate Nursing Students' Learning

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Photo courtesy: www.pixabay.com

Concept maps, a method of learning using diagrammatic relationships among concepts representing subject knowledge, have been used in nursing education for the past 25 years to support student learning (Daley et al., 2016; Latif et al., 2016). Concept maps are a visual representation of an individual's understanding of selected phenomena that can creatively organize information to demonstrate relationships between them (Giddens & Caputi, 2020; Latif et al. 2016; Mathew, 2017). Benefits of concepts maps include gaining and retaining new knowledge, increase in learner engagement and promotion of problem solving and critical thinking (Harrison & Gibbons, 2013; Latif et al., 2016).

In Fall 2020, University of Calgary in Qatar (UCQ) transitioned to a Concept and Competency Based Curriculum. The author was assigned to develop a new course: Introduction to the Nursing Profession. The introductory theory course is one of the first courses

students in the program take that covers fifteen concepts such as ethics, critical thinking, collaboration, and legislation. While developing the new course, course objectives, literature supporting concept-based learning, and the textbook *Mastering Concepts-Based Teaching* were reviewed for concept and assessment strategies. The author's goal was to develop course assessments that would foster critical thinking, promote reflective practice, and create an opportunity for students to deepen their knowledge while making meaningful connections amongst concepts learned in the course.

As a result of this inquiry, the final assignment of the course was designed to require students to create a concept map by selecting six concepts from the course and answering the focus question: **“How will I use the selected concepts as a nursing student?”** By reflecting on their learning and experiences within the program, students were required to make connections between the focus question, their learning, and the six concepts discussed in the course. Completing the concept map assignment enabled students to meet course objectives outlined in the course syllabus such as developing the ability to explain select nursing concepts and their associated relationship or interrelatedness among concepts, demonstrating beginning application of critical and clinical thinking in relation to professional and relational practice while engaging in self-reflection and self-evaluation (personal communication, November 6, 2022).

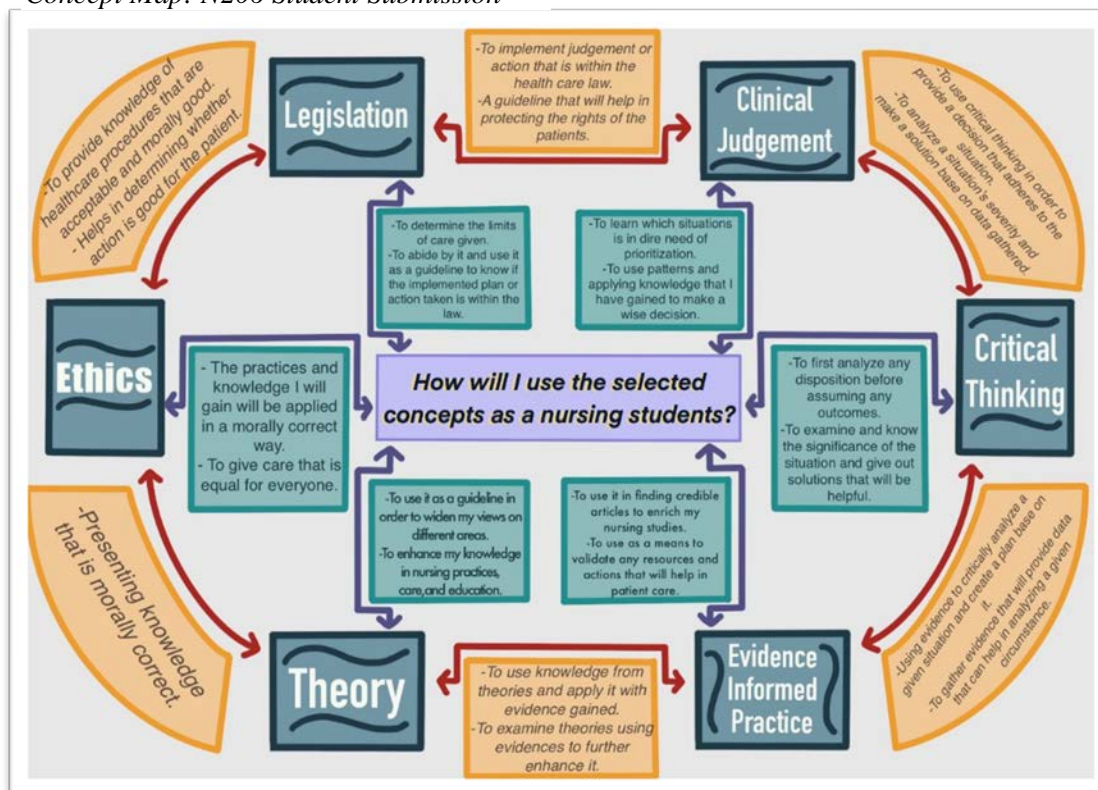
HOW WILL I USE THE SELECTED CONCEPTS AS A NURSING STUDENT?

When assessing student submissions, most of the students demonstrated a comprehensive understanding of how the concepts could be utilized and applied accurately in a nursing context. For example, one student indicated they will use the concept of ethics in

future nursing practice by ensuring the care they provide is equal and fair (Figure 1). Furthermore, another student indicated they will use clinical judgement in practice settings by gathering data, interpreting it, and making wise decisions when providing nursing care. In another example, one student stated they will use evidenced informed care to guide their practice by using what has been proven to be effective with patients.

the experience helped them to transfer their knowledge from theory to practice as they were able to use concept maps to make sense of the nursing care they provided in the clinical setting. Students shared how concept mapping prepared them to see connections and relationships between different aspects of patient needs and how they impacted each other, thus supporting them with their interventions.

Figure 1
Concept Map: N206 Student Submission



During class discussions after completing the concept map assignment, students indicated the positive impact concept mapping had on their learning. Based on positive feedback from students, they were invited to a faculty workshop to share their experiences. Students indicated concept mapping provided them an opportunity to reflect on their learning and to exercise critical thinking skills. Furthermore, students indicated

Overall, the use of concept maps as an assessment tool to deepen student learning and make meaningful connections to concepts discussed in class was successful. Discussions with other faculty working in the course indicated concept mapping had a positive impact on student learning. The author is currently in the process of formally researching the impact of concept maps on student learning.

First Simulation Experience for 2nd Year Nursing Students (BN). Is it Early Enough?

Kristi Yassine, MSN, BSN, RN
Assistant Professor (Clinical)

The following was displayed as a poster presentation at the *Qatar Simulation Symposium 2022: Impact of Simulation in Qatar* held on 22 October 2022.

Abstract

Simulation provides a safe and controlled environment whereby students can work in scenarios to apply advanced thinking skills, make sound clinical judgments, communicate effectively, and get to reflect on how to apply these skills in real-life scenarios (Nelson, 2016). According to Waxman et al. (2019), active learning strategies such as simulation can enhance and accelerate learning among undergraduate nursing students.

Introduction

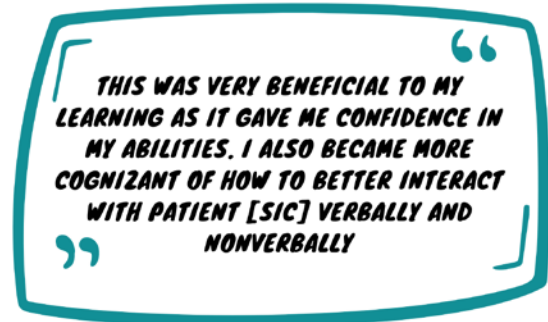
At the University of Calgary in Qatar (UCQ), simulation experiences have been used for a long time as a pedagogical approach to provide students with hands-on, guided experiences in a controlled setting. A quality improvement initiative focused on whether introducing simulation earlier in the nursing program would benefit in preparation for clinical. The Experiential Learning Center at UCQ was utilized for this Simulation encounter for 57 second-year nursing students as part of their lab course, Nursing Concepts and Therapeutics II. The use of Standardized Patients was incorporated to increase the realism of the case scenario and allow students to be more immersed in the simulation.

Aim

To see the impact of the simulation on students' confidence and competence levels in terms of being more ready for their clinical practicum.

Methodology

The one-day simulation experience consisted of a skills lab and an unfolding case scenario using Standardized Patients (SP). The skills lab included urinary catheterization, oxygen delivery systems and blood glucose meters. During the case scenario, students participated in interprofessional education (IPE) through assigned roles as a wound care nurse, RN and respiratory therapist. These teams of three students completed respiratory, wound and elimination assessments and had the opportunity to practice communication skills with the SPs. Qualitative feedback was obtained from students using the Simulation Effectiveness Tool – Modified (SET-M) at the conclusion of the simulation experience.



Results

Qualitative findings revealed an overall positive student experience with the simulation day. Common themes emerged from student feedback around confidence, working as a team, learning and ambiguous fear. Students found simulation helpful in increasing their confidence level and described it as a fun and enjoyable experience. Several also reported feeling nervous with simulation. Students also liked working as a team during the simulation event.

Investigating Undergraduate Nursing Students' Perceptions of Active Learning Strategies at the University of Calgary in Qatar

Dr. Frances Kalu, Ms. Carolyn Wolsey
& Ms. Parivash Enghiad

Results from the Spring 2018 faculty survey by the Centre for Teaching and Learning UCQ, showed an overwhelming interest from faculty in learning more about using active teaching and learning strategies in the classroom and how to make lectures active. In addition, conversations during our 2018 Teaching and Learning in Nursing Education book club aligned with research documenting the shift in higher education from predominantly traditional forms of teaching such as

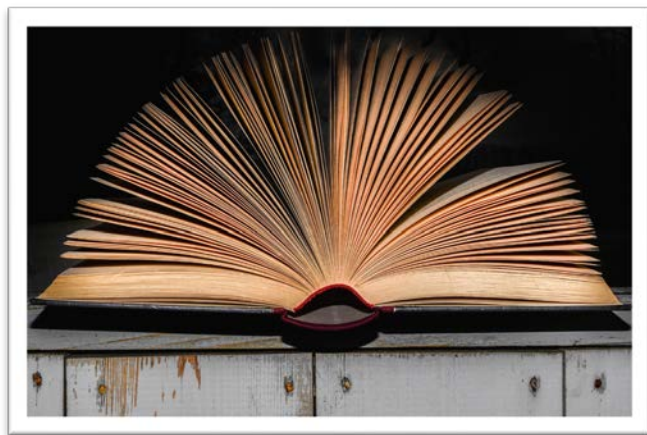


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lectures to a more learner-centered approaches (Fink, 2013). Researchers over the years argue that students are passive recipients of information during lectures, most do not remember 40% of what is taught at the end. In addition, they do not develop the skills needed to transfer knowledge to new situations, nor gain the

ability to think critically (Freeman et al., 2014). The development of critical thinking skills is especially important amongst nursing students as professional nurses are expected to problem-solve while resolving client issues, making it important that teaching and learning strategies used in nursing education provide students with the opportunity to experience deep learning while thinking critically.



Photo courtesy: www.pixabay.com

Active learning strategies are based on the constructivist paradigm which believes that learners actively construct meaning by building on prior knowledge and experiences (Philips, 2018). Learners are engaged in the learning process by interacting with the content then reflecting on the process to create new knowledge. During this process, students acquire new knowledge through activities or conversations that aid learning, in contrast to acquiring knowledge passively without any or little involvement in the process. Research across various disciplines highlight the positive effect active learning strategies has on student learning. In some studies, students believe that the use of active learning strategies improves their learning, enhances their understanding of topics being taught in class, encourages critical thinking, enhances motivation and engagement, and provides an opportunity to transfer

knowledge from theory to practice (Huda, Ali, Nanji, & Cassum, 2016; Nelson & Crow, 2014).

Our study sought to investigate undergraduate nursing students' perceptions of the effects of active learning strategies currently being used in their classrooms at the University of Calgary in Qatar. Specifically, we sought to understand, i) The extent the use of active learning strategies improves the conceptual understanding of topics being taught in undergraduate nursing classes? ii) What active learning strategies are currently being used in undergraduate nursing education at UCQ? iii) How active learning strategies can be implemented at UCQ to enhance students learning? Data was collected through

focus group discussions and field notes, and thematically analysed. 50 undergraduate nursing students from years 1 – 4 participated in the focus group sessions.

Fink's Taxonomy of Significant Learning was used to conceptualize learning in our research project (Fink, 2013). Components of the Taxonomy of Significant Learning include foundational knowledge, application, integration, human dimension, caring, and learning to learn (Fig. 1).

Figure 1
Taxonomy of Significant Learning

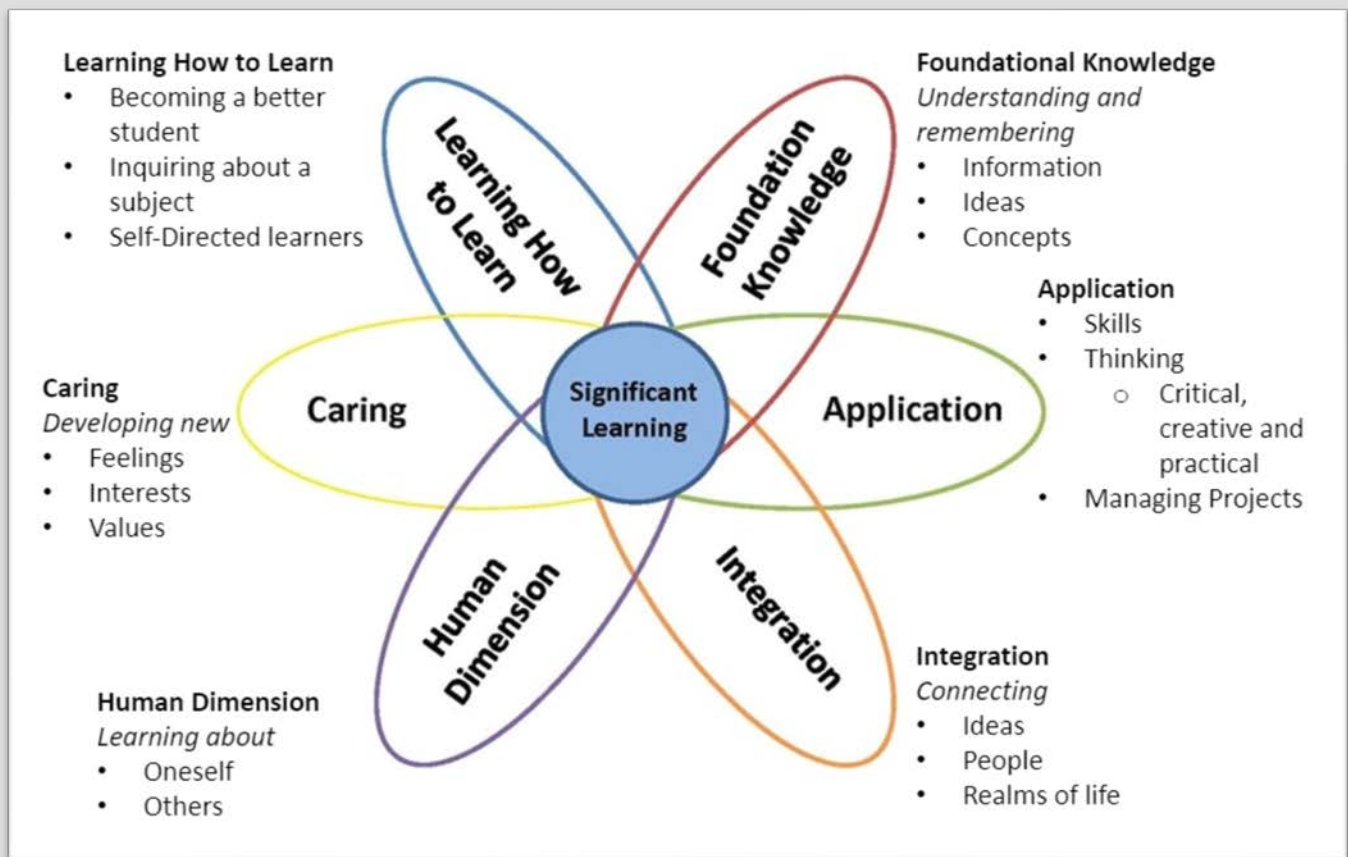
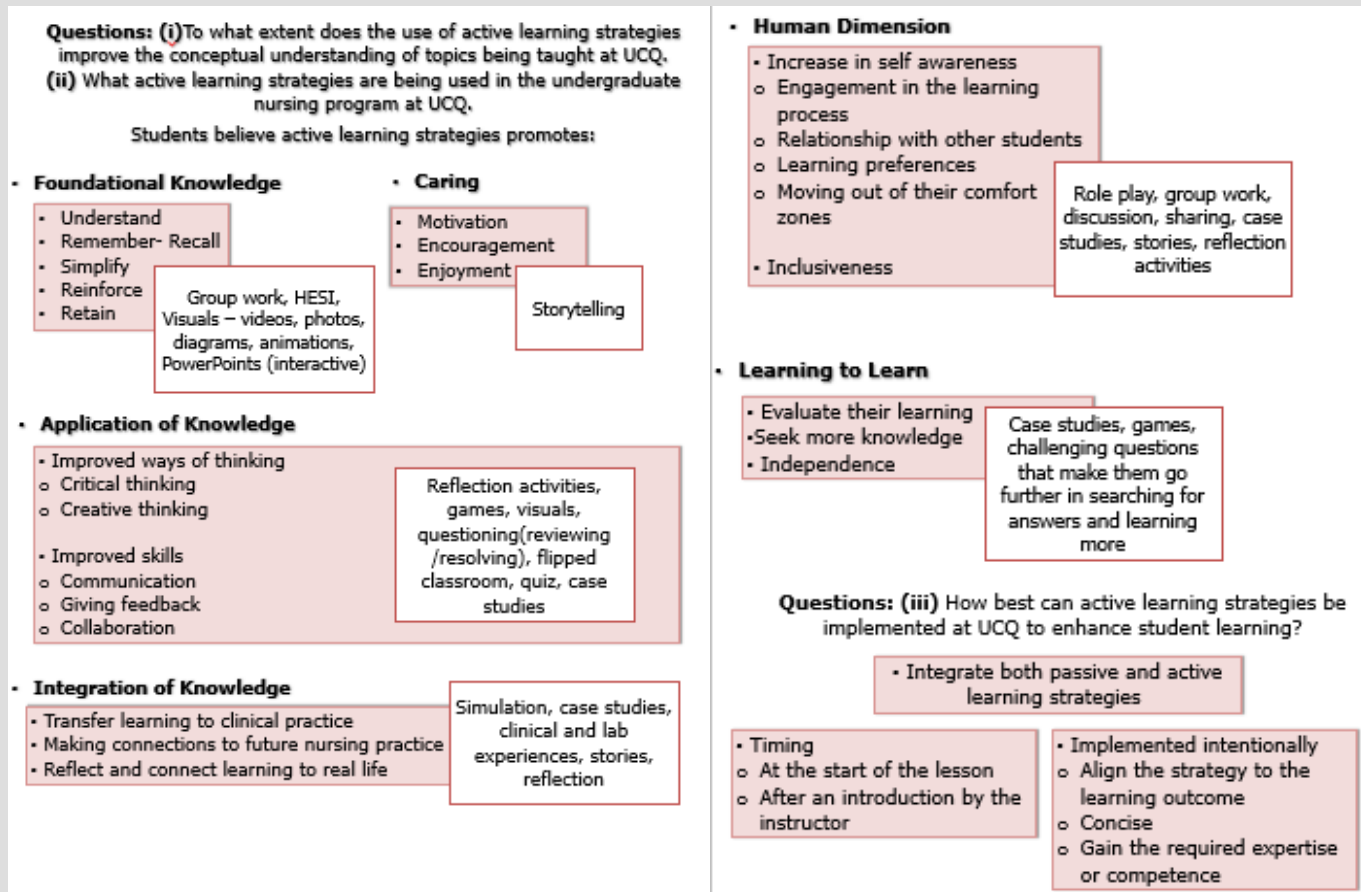


Figure 2
Study Findings

Results



Above, we share our findings from the study (Figure 2). The author defines Significant Learning as deep learning that entails a comprehensive grasp of the topic by students beyond recall. He defines Foundational Knowledge as learning that provides the basic understanding necessary for other kinds of learning to occur. The category Application is defined as learning that allows other kinds of learning to become useful. For Integration, Fink believes that the act of making new connections gives learners a new form of power especially intellectual power. Learning related to Human Dimension informs students about the human significance of what they are learning.

For caring, Fink believes that this includes learning experiences that changes the degree to which students care about something. Finally, the category Learning How to Learn enables students to continue learning in the future and to do so with greater effectiveness.

In conclusion, undergraduate nursing students at the University of Calgary in Qatar not only enjoy they also learn deeply when active learning strategies are used. However, there needs to be a thoughtful integration of active learning strategies, with feedback provided to the students. In addition, to support students coming to class prepared, pre-work assigned should be meaningful.

References

CTL News

Impact of Simulation on Students in Undergraduate Nursing Programs

- Bland, A. J., & Tobbell, J. (2016). Towards an understanding of the attributes of simulation that enable learning in undergraduate nurse education: A grounded theory study. *Nurse Education Today*, 44, 8–13. <https://doi.org/10.1016/j.nedt.2016.05.011>
- Chmil, J. V., Turk, M., Adamson, K., & Larew, C. (2015). Effects of an experiential learning simulation design on clinical nursing judgment development. *Nurse Educator*, 40(5), 228–232. doi:10.1097/nne.0000000000000159
- Gantt, L. T., Overton, S. H., Avery, J., Swanson, M., & Elhammoumi, C. V. (2018). Comparison of debriefing methods and learning outcomes in human patient simulation. *Clinical Simulation in Nursing*, 17, 7–13. <https://doi.org/10.1016/j.ecns.2017.11.012>
- Kimhi, E., Reishtein, J. L., Cohen, M., Friger, M., Hurviz, N., & Avraham, R. (2016). Impact of simulation and clinical experience on self-efficacy in nursing students. *Nurse Educator*, 41(1), E1–E4. <https://doi.org/10.1097/NNE.0000000000000194>
- Massoth, C., Röder, H., Ohlenburg, H., Hessler, M., Zarbock, A., Pöpping, D. M., & Wenk, M. (2019). High-fidelity is not superior to low-fidelity simulation but leads to overconfidence in medical students. *BMC Medical Education*, 19(1). <https://doi.org/10.1186/s12909-019-1464-7>
- Mulvogue, J., Ryan, C., & Cesare, P. (2019). Nurse simulation facilitator experiences learning open dialogue techniques to encourage self-reflection in debriefing. *Nurse Education Today*, 79, 142–146. <https://doi.org/10.1016/j.nedt.2019.05.021>
- Owen, H. (2016). *Simulation in healthcare education: an extensive history*. Springer.
- Rutherford-Hemming, T. (2012). Simulation methodology in nursing education and adult learning theory. *Adult Learning*, 23(3), 129–137. <https://doi.org/10.1177/1045159512452848>
- Zhang, H., Goh, S. H. L., Wu, X. V., Wang, W., & Mörelius, E. (2019). Prelicensure nursing students' perspectives on video-assisted debriefing following high fidelity simulation: A qualitative study. *Nurse Education Today*, 79, 1–7. <https://doi.org/10.1016/j.nedt.2019.05.001>
- Zigmont, J. J., Kappus, L. J., & Sudikoff, S. N. (2011). Theoretical foundations of learning through simulation. *Seminars in Perinatology*, 35(2), 47–51. <https://doi.org/10.1053/j.semperi.2011.01.002>

Aligning Formative to Summative Assessment Using Entry-to-Practice Nursing Competencies

- Benner, P. (2012). Educating nurses: A call for radical transformation-how far have we come? *The Journal of Nursing Education*, 51(4), 183–184. <https://doi.org/10.3928/01484834-20120402-01>
- Bloom, B. S. (1956). *Taxonomy of educational objectives*. David McKay Company, Inc.

- Burgess, A., & Mellis, C. (2015). Feedback and assessment for clinical placements: Achieving the right balance. *Advances in Medical Education and Practice*, 6, 373. <https://doi.org/10.2147/amep.s77890>
- College of Registered Nurses of Alberta (CRNA). (2019). *Entry-level competencies for the practice of registered nurses*. https://www.nurses.ab.ca/docs/default-source/document-library/standards/entry-to-practice-competencies-for-the-registered-nurses-profession.pdf?sfvrsn=15c1005a_16
- Gaberson, K. B., Oermann, M. H., & Shellenbarger, T. (2018). *Clinical teaching strategies in nursing*. Springer Publishing Company, LLC.
- Koh L. C. (2010). Academic staff perspectives of formative assessment in nurse education. *Nurse Education in Practice*, 10(4), 205–209. <https://doi.org/10.1016/j.nepr.2009.08.007>
- Redfern, S., Norman, I., Calman, L., Watson, R., Murrells, T. (2010). Assessing competence to practice in nursing: A review of the literature. *Research Papers in Education*, 17(1), <https://doi.org/10.1080/02671520110058714>
- Zasadny, M. F., & Bull, R. M. (2015). Assessing competence in undergraduate nursing students: The Amalgamated Students Assessment in Practice Model. *Nurse Education in Practice*, 15(2), 126–133. <https://doi.org/10.1016/j.nepr.2015.01.003>

Preparing Undergraduate Nursing Students for Clinical Using a Multi-Mode Simulation Skills Day: An Educator's Reflection

- Canadian Association of Schools of Nursing. (2019). *Top ten adult nursing situations for high-fidelity simulation*. <https://www.casn.ca/wp-content/uploads/2019/08/CAE-Top-10-EN-FINAL.pdf>
- Hollenbach, P.M. (2016) Simulation and its effect on anxiety in baccalaureate nursing students. *Nursing Education Perspectives*, 37(1), 45-47. <https://doi.org/10.5480/13-1279>
- Gore, T., Hunt, C.W., Parker, F. & Raines, K. (2010). The effects of simulated clinical experiences on anxiety: Nursing students' perspectives. *International Nursing Association for Clinical Simulation and Learning*, 7(5), 175-180. <https://doi.org/10.1016/j.ecns.2010.02.001>
- Palmer, B.J., & Ham, K. (2017). Collaborative simulation: Enhancing the transition to clinical practice. *Nursing Education Perspectives*, 38(5), 281-282. <http://doi.org/10.1097/01.NEP.0000000000000166>

Using Concept Maps to Enhance Undergraduate Nursing Students' Learning

- Daley, B., Morgan, S., & Black, S. (2016). Concept maps in nursing education: A historical literature review and research directions. *Journal of Nursing Education*, 55(11), 631-639. <https://doi.org/10.3928/01484834-20161011-05>
- Giddens, J., Caputi, L., & Rodgers, B. (2020). *Mastering-concept based teaching: A guide for nurse educators* (2nd ed.). Elsevier.
- Harrison, Z., & Gibbons, C. (2013). Nursing student perceptions of concept maps: From theory to practice. *Nursing Education Perspectives*, 34(6), 395-399. <https://doi.org/10.5480/10-465>
- Latif, R., Mohame, Dahlan, A., & Nor, M. (2016). Concept mapping as a teaching tool on critical thinking skills and academic performance of diploma nursing students. *Education in Medicine Journal*, 8(1), 67–74. <https://doi.org/10.5959/eimj.v8i1.406>
- Mathew, L. (2017). Using Wikis to build nursing concept maps promoting group interactive learning. *Computer Informatics Nursing*, 35(2), 63-66. <https://doi.org/10.1097/CIN.0000000000000338>

First Simulation Experience for 2nd Year Nursing Students (B.N.). Is it Early Enough?

- Leighton, K., Ravert, P., Mudra, V., & Macintosh, C. (2015). Updating the Simulation Effectiveness Tool: Item Modifications and Reevaluation of Psychometric Properties. *Nursing education perspectives*, 36(5), 317–323. <https://doi.org/10.5480/15-1671>
- Nelson R. (2016). Replicating real life: Simulation in nursing education and practice. *The American Journal of Nursing*, 116(5), 20–21. <https://doi.org/10.1097/01.NAJ.0000482956.85929.d8>
- Waxman, K.T., Bowler, F., Forneris, S.G., Kardong-Edgren, S., Rizzolo M.A. (2019). Simulation as a nursing education disrupter. *Nursing Administration Quarterly*, 43(4), 300–305. <https://doi.org/10.1097/NAQ.0000000000000369>

Investigating Undergraduate Nursing Students' Perceptions of Active Learning Strategies at the University of Calgary in Qatar

- Fink, L. D. (2013). *Creating significant learning experiences: An integrated approach to designing college courses*. Jossey Bass - Wiley.
- Freeman, S., Eddy, S., McDonough, M., Smith, M., Okoroafor, N., Jordt, H. & Wenderoth, M. (2014). Active learning increases student performance in science, engineering, and mathematics. *Proceedings of the National Academy of Sciences of the United States of America*, 111(23), 8410-8415. Retrieved from <http://www.jstor.org/stable/23776432>
- Huda, S., Ali, T.S., Nanji, K. & Cassum, S. (2016). Perceptions of undergraduate nursing students regarding active learning strategies, and benefits of active learning. *International Journal of Nursing*, 8(4), 194 -199. <http://doi.org/10.5958/0974-9357.2016.00151.3>
- Nelson, L. P. & Crow, L.M. (2014). Do active-learning strategies improve students' critical thinking? *Higher Education Studies*, 4(2), 77 -90. <http://dx.doi.org/10.5539/hes.v4n2p77>
- Philips, B.C. (2018). Understanding the learner. In M. Oermann, J. Gagne, & B. Philips (Eds.), *Teaching in nursing and the role of the educator: The complete guide to best practice in teaching, evaluation, and curriculum development* (2nd ed.) (pp. 30-44). Springer Publishing.