Walden Dissertations and Doctoral Studies

2015

Student Perceptions of Effective Learning Strategies for National Council Licensure Examination Preparation

Lori Jean Johnson
Walden University

Walden University

COLLEGE OF EDUCATION

This is to certify that the doctoral study by

Lori J. Johnson

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

Review Committee
Dr. Kathryn Hollywood, Committee Chairperson, Education Faculty
Dr. Sheilia Goodwin, Committee Member, Education Faculty
Dr. John Hendricks, University Reviewer, Education Faculty

Chief Academic Officer

Eric Riedel, Ph.D.

Walden University
2015

Abstract

Student Perceptions of Effective Learning Strategies

for National Council Licensure Examination Preparation

by

Lori J. Johnson

MSN, Walden University, 2010

BSN, Roberts Wesleyan College, 1999

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

Walden University

May 2015

Abstract

The purpose of this study was to examine efficacious instructional strategies that the New England Community College (NECC) nursing program could implement in the curricula to improve National Council Licensure Examination Registered Nurse (NCLEX-RN) first-time pass rates. Effective strategies from students and nursing program faculty had used were investigated. Such strategies support student nurses in their efforts to succeed on the first administration of the exit examination. The rationale for this study and resulting project was that they could improve NCLEX-RN first-time pass rates and positively impact the local hiring of qualified nurses. Guided by Knowles's adult learning theory, key results of the study and resulting project were developed from effective instructional strategies discovered from former NECC students. The central research question focused on identifying which teaching-learning strategies in the NECC nursing curricula improved students' critical thinking skills and problem solving skills. A qualitative case study design was employed with a purposeful sample of 15 former NECC nursing program graduates. Participant focus groups and annual program/accreditation documents were used to collect data to address how student nurses learn best in order to be successful on the exit examination. The project was the creation of a 3-day seminar in the first semester curriculum that focuses on effective licensure preparation instructional strategies to establish and maintain high NCLEX-RN pass rates. Implications for positive social change include, but are not limited to, improving students' problem solving skills and application of critical thinking strategies in order to positively impact the lives of the patients whom they will serve.

Student Perceptions of Effective Learning Strategies

for National Council Licensure Examination Preparation

by

Lori J. Johnson

MSN, Walden University, 2010

BSN, Roberts Wesleyan College, 1999

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

Walden University

May 2015

Table of Contents

List of Tables

List of Figures

Section 1: The Problem

Introduction

Presently, a significant number of New England Community College (NECC) graduates do not pass the National Council Licensure Examination Registered Nurse (NCLEX-RN) on their first attempt, resulting in chronic fluctuations in NCLEX-RN pass rates at this institution. The NECC nursing program completes and submits an annual report to the National League for Accreditation Commission for Education in Nursing (ACEN) and the Massachusetts Board of Registration in Nursing. NECC's NCLEX quarterly pass rates for 2013 were 87%, 82%, and 64% (NCLEX, 2013). Not only is NECC's NCLEX pass rate below the mandated accreditation standard, it is below the 83% national NCLEX pass rate (NCSBN, 2013a). Reasons for these fluctuations in pass rates to a low of 64% are unclear. If NCLEX pass rates at NECC continue to fall below national standards on the first attempt, they may cause the program to lose accreditation. Additionally, there are ethical implications with allowing students to progress through a program when they are not likely to pass the licensure exam. NCLEX-RN tests are designed to evaluate entry-level competency. Without credible means of measuring critical thinking and problem solving ability throughout nursing programs, new graduate nurses may not meet entry-level expectations for safe clinical practice. The NECC nursing curriculum was designed to mirror the format and content of the NCLEX-RN exam to meet the standards of the profession and accrediting agencies (███████████████████████ [██████, 2007).

The local setting of this study is a large community college in the northeast sector of the United States that offers a full-time 2.5-year associate's degree program in nursing that enrolls approximately 290 nursing students each year (█████ 2011). Day, evening, weekend, and hybrid course options are available. Of all programs in the Boston licensing jurisdiction, NECC supplies 12.5% of nurses within the local nursing population (NCSBN, 2013a). Research participants for this study included past associate's degree (AD) graduates of the nursing education department at NECC from 2009 to the present. The number of participants projected for inclusion in this study was between 15 and 20. The rationale for studying this problem of fluctuations was to identify the instructional teaching strategies that former NECC graduates say their instructors implemented that promoted and enhanced critical thinking skills and problem solving skills in nursing students. The purpose of this research was to discover teaching-learning strategies that help students develop problem solving and critical thinking skills in an effort to capitalize on these strategies in order to understand and address the fluctuations in the passing rates on the NCLEX examination. Incorporation of problem solving skills, a type of critical thinking skills, is important for both nursing education and licensure (Dickerson, 2005; Romeo, 2010). Students must be able to complete the nursing program and graduate to achieve licensure. Helping students learn how to improve problem solving skills and critical thinking ability contributes to positive student outcomes.

Definition of the Problem

Improving first-time pass rates of nursing students on the NCLEX-RN is of utmost importance to all NECC stakeholders. Factors impacting successful performance on the NCLEX-RN include instructional practices of faculty members to improve critical thinking ability in students. The NECC nursing program faculty and administrators expect graduates to pass the NCLEX-RN exam on their first attempt and become registered nurses. Despite sharing this expectation, many nursing graduates at NECC have a problem passing the NCLEX exam on their first attempt. Rogers (2009) stated that "identifying factors that contribute to NCLEX-RN success have pointed to different factors for success or have contradicted the findings of previous research" (p. 96). Exploring and identifying perspectives on successful test preparation held by former nursing graduates may help the NECC nursing program improve future pass rates.

Accrediting agencies hold nursing programs accountable for NCLEX-RN pass rates (NCSBN, 2013a). Inadequate performance limits the marketability of the nursing program at NECC and threatens to compromise its educational credibility and significance. Only 64% of NECC graduates passed the NCLEX-RN from September to November 2013 (NCSBN, 2013b), and NECC candidates are scoring below the current 83% national standard on their first attempt.

Nursing literature indicates that students' perspectives during prelicensure examination performance on NCLEX preparation may intentionally help them choose how they develop the critical thinking skills, problem solving skills, and values that are central to their prelicensure preparation. Recently, the number of students graduating

from nursing programs has been insufficient to meet projected needs for RNs. Murray (2013) stated that U.S. Department of Labor statistics projected that the need for RNs is expected to grow 26% by 2020. In response to the nursing shortage, Romeo's (2010) findings support the standpoint that NCLEX test-takers who fail the examination and those who pass on their first attempt need to be studied in greater detail to determine what other perspectives might also influence success rates of first-time NCLEX test-takers. Learning what influences success rates of first-time NCLEX test takers would provide significant information to inform instructional practices of nursing faculty members. Therefore, one of the primary objectives of this research study was to identify students' perceptions of effective teaching-learning strategies for NCLEX preparation used by the faculty members at NECC.

It is vital that NECC nursing students pass the NCLEX-RN on their first attempt because the chronic fluctuation in first-time pass rates potentially adds to the shortage of qualified graduate RNs in Massachusetts. The diminished numbers of nurses who are granted professional licensure to enter the nursing workforce may have a catastrophic impact on the nursing profession. If students do not pass the NCLEX-RN the first time they take it, then the likelihood of passing the second time is diminished because test anxiety is a factor in NCLEX failure (Lavin & Rosario-Sim, 2013; Poorman, Mastorovich, Molcan, & Webb, 2009). Lavin and Rosario-Sim (2013) found that a variety of strategies should be considered in order to help students pass the NCLEX-RN; for instance, they recommended developing test anxiety workshops, given that many students reported panic levels of anxiety when taking exams. Additionally, these authors

reported that graduates who delayed taking the NCLEX for more than 3 months after graduation were at greater risk for test anxiety during the exam.

Poorman et al. (2009) found that test-anxious people benefit from using a combination of therapies because the treatment for test anxiety differs depending on the cause of the problem and the symptoms exhibited (p. 15). Additionally, Oermann and Gaberson (2009) reported that interventions can include progressive relaxation, learning effective study skills, improving problem-solving techniques, and becoming aware about negative thoughts during the test that may perpetuate cognitive distractions.

There has been some additional research regarding academic factors that may impact NCLEX-RN pass rates, but none of these factors that this research has identified the kind of educational strategies and approaches that could increase the effectiveness of teaching-learning strategies. According to Spector and Odom (2012), "Boards of Nursing (BONs) must maintain standards that protect the public as they consider innovative educational strategies that can lead to high-quality nursing graduates, resulting in top-quality practitioners" (p. 44). It is important that nurse educators preparing future nurses for practice address failure on the NCLEX-RN in order to positively guide their teaching actions. There is a gap in data regarding interventions that enhance NCLEX test-taking skills from the perspective of students. Taylor (2008) stated that in nursing education, "there is no repository of evidence on who tried an idea and to what extent it worked or failed miserably" (p. 95).

There may be additional factors that contribute to ineffective outcome performances on the NCLEX-RN. Presently, NECC uses an assessment process in order

for students to meet the final requirements of their senior course for progression or graduation. The NECC nursing program requires students to pay for and take a proctored commercial standardized NCLEX-RN review exam. The commercial standardized review package (CSRP) offers self-directed learning and testing strategies and practice tests online to gauge academic nursing knowledge from the beginning of the first semester for students who purchased the CSRP tools. There is no formal student/faculty orientation to using the CSRP assessment tool and no existing policy in the nursing handbook or course syllabus explaining it in further detail; however, CSRP does provide online tutorials.

It is important to note that the NECC nursing program, like most nursing programs, consists of three components: didactic, laboratory practice, and clinical experiences. Nursing faculty members or adjunct instructors facilitate clinical groups with a ratio of 1:5 to 1:8. Most of the didactic instruction delivered in these components tends to involve a teacher-rather than learner-centered process. Ramifications of this teacher-centered didactic modality are manifested in various students' poor test performance or test anxiety. A substantial body of research in nursing education has indicated that undergraduate nursing education programs support a style of instructional practices that remains in the complete control of the educator (de Gea, Aleman, & Garcia, 2012; Diekelmann & McGregor, 2003; Muirhead, 2007; Thompson, Estabrooks, & Degner, 2006). These authors recognized that the learning potential of adults is greatest when educators do not attend to a single teaching learning strategy and offer more individualized and learner-centric instructional approaches.

Traditional clinical configurations place one instructor with 10 students, each student rendering care to one or two patients. Laboratory practice involves a 10:1 ratio using combined lecture and group demonstration of nursing skills. NECC nursing faculty members implement a variety of effective teaching strategies, including transitioning to CSRP proctored assessments to improve critical thinking skills, comprehension, and application of nursing content. Examples of effective teaching strategies that faculty currently use include tutoring students individually or in small groups during scheduled office hours to reinforce concepts or abstract information for students, and small-group case studies as a learning tool to reinforce how concepts relate to real-life patient situations. For example, students may work collectively to teach a patient about a medication that will reduce pain but also has side effects such as drowsiness that would impact driving a car or operating heavy machinery. These examples help expose students to purposeful decision making, peer interactions, and collaborative learning. Additionally, Cabai (2012) indicated that directing teaching towards a student's learning style has positive implications for learning and developing critical thinking skills.

According to Carrick (2011), the attributes of becoming safety conscious and clinically competent nurses are related to critical thinking, ability to move theory to practice with test scores, and NCLEX-RN pass rates, which serve as feedback loops for instructors at schools of nursing. Research has shown that innovative teaching and learning strategies that address various learning styles will affect student outcomes, including passing the NCLEX-RN (Simon, McGinniss, & Krauss, 2013). The research study and its results may contribute to understanding of student nurses' perspectives on

NCLEX preparation. I used the appreciative inquiry approach (Cooperrider & Whitney, 2005) to address issues of effective instructional practices, adult learning strategies, and best practices that could improve NECC students' critical thinking and problem solving skills. Improving NECC NCLEX-RN pass rates could potentially add value to the return on investment by the various NECC stakeholders. NECC stakeholders are individual nursing students, their families, the college, and local employers who are affected directly or indirectly by chronic fluctuations in percentages of NCLEX-RN pass rates.

Discovering strategies that promote learning comprehension, critical thinking skills, and problem solving skills provided NECC nursing faculty members and administrators with additional knowledge about effective teaching-learning strategies the nursing program can consider for implementation to improve student outcomes and potentially improve NCLEX-RN performance and pass rates.

Rationale

Further research to explore and discover student nurses' perspectives on NCLEX preparation is both timely and relevant because the problem at NECC is that students' critical thinking skills are inadequate for successfully passing the NCLEX on the first attempt. There is a gap in information toward identifying the factors and forces that are causing a significant number of NECC graduates not to pass the NCLEX-RN on their first attempt. These results have the potential to cause fluctuations in percentages of NCLEX-RN pass rates and local hiring of qualified nurses. Exploring and discovering what faculty members can do by way of instructional practices, adult teaching-learning

strategies, and best practices to improve students' critical thinking skills may help to improve future first-time pass rates.

Evidence of the Problem at the Local Level

The NCLEX-RN performance of new nursing graduates is a major concern of NECC, the largest community college in the northeast sector of the United States. NECC's students are urban, multiethnic, and multiracial. Sixty-three percent of NECC students are persons of color, and 37% are White; the average age of students is 27; and the majority of students work while attending college (████ 2011). Many students at NECC would be considered nontraditional. Shillingford and Karlin (2013) described a *nontraditional student* as follows: "attending college for the first time, or returning student, attends school part time, works full time while enrolled, is financially independent, has dependents other than spouse, is a single parent, or may not have a high school diploma" (p. 92). Few students entering the nursing program hold a second degree from another discipline (████ 2011). The NECC nursing program is a 2-year program that begins every fall and spring semester. The nursing department enrolls approximately 290 nursing students each year (████ 2010-2011).

The admission requirements for the nursing program consist of completing five prerequisite courses (████ 2013a) with a grade of C or higher, completing a drug calculations course with a grade of B- or higher, and the following minimum scores on the Test of Essential Academic Skills V (TEAS): 47.6 % in reading, 46.7 % in math, and 37.5 % in science. Before they begin the program, nursing students must successfully complete application and health requirements, including a background check, and must

meet eligibility requirements specified by the Massachusetts Board of Nursing (MBORN). The academic program includes 35 credits of nursing theory and clinical placement in area health facilities. Students must earn a grade of 78 or higher in all nursing courses, including a satisfactory score on all components of the final evaluation, to successfully meet the clinical requirements of the program, as well as all program requirements to be eligible for the NCLEX-RN exam.

Currently, applicants are accepted into the nursing program after evaluation of their record by the Nurse Education Admissions Committee based on a ranking system that includes TEAS score and performance in other courses in the nursing curriculum (████, 2013a). Students' grades are based on standardized achievement tests, paper-and-pencil exams, tests, skill performance competencies, and simulation scenarios. Finally, prior to graduation, all students are required to take the proctored CSRP comprehensive test. According to the nursing faculty, "very strong correlations are seen between a student's score on these tests and success in each clinical course" (BHCC Nurse Education Department, 2014, p. 11).

Each semester, evaluation of student performance in each clinical component of each nursing course occurs at the midpoint and at the completion of a rotation. Clinical objectives are rated as satisfactory (S), unsatisfactory (U), or progressing (P). Students are scored on attendance, professional appearance, safe provision of care, health promotion, nursing process, communication, and client advocacy (BHCC Nurse Education Department, 2014a, pp. 13-14). Student learning outcomes provide structure for course and clinical objectives throughout the nursing program. One example of a

clinical objective that students are required to meet is using the steps of the nursing

process and critical thinking in the delivery of holistic nursing care. The nursing process

is "a systematic patient-centered, goal-oriented method of caring that provides a

framework for nursing practice" (Taylor, Lillis, LeMone, & Lynn, 2011, p. 186).

Students are assigned to take care of patients at the beginning of their first semester and

gradually are assigned to more complex patient situations during weekly clinical

placement in various hospitals. Additionally, student nurses systematically apply each

step of the nursing process by first incorporating critical thinking and problem solving

skills in the delivery of holistic nursing care in all of their patient assignments.

NECC administrators expect that "at least 80% of graduates will pass the

NCLEX-RN exam on the first attempt" (▮▮▮▮ Nurse Education Department, 2014, p.

7). The NECC nursing program administrators complete and submit an annual report to

the National League for Accreditation Commission for Education in Nursing (ACEN)

and the Massachusetts Board of Registration in Nursing. NCLEX pass rates for 2013

were 87%, 82%, and 64%, respectively (NCLEX, 2013). The NECC nursing program

NCLEX-RN pass rates for 2009 through 2013 is was 83% (MHHS, 2014). The

retention rate for fall-to-fall 2009-2010 was 49% (▮▮▮▮, 2011).

The Nursing Education Practice Partnership Survey 2005 (NEPPS, 2014) reported

first-time NCLEX-RN pass rates, while other programs, including NECC, use the pass

rate on national licensing examinations as a measure of program success (Blakely &

White, 2013; Commonwealth Corporation, 2009, Commonwealth of Massachusetts,

2014; Lewis, 2010; NEPPS, 2014). According to Billings and Halstead (2009), "if the

graduates of a given program are not in demand, or not marketable, one must question the viability of the program" (p. 502). Providing the nursing department with additional findings at supporting students more effectively in their first time administration of the NCLEX-RN exam is of utmost importance. The Executive Office of Health and Human Services at the Massachusetts Department of Health (EOHHS) monitors, and the Massachusetts Board of Higher Education (MBOHE) "measures NCLEX-RN pass rates for first-time test takers as an indication of academic quality and learning outcomes" (MBOHE, 2010, p. A-8; EOHHS MDPH, 2013). The MBOHE target for the NCLEX-RN pass rate is 86% (MBOHE, 2010). Furthermore, the NECC nursing philosophy statement notes that the nursing faculty "believes their nursing graduates are prepared as accountable, adaptable, nurse generalists for entry-level employment" (███ NEDSH, 2013, p. 8). Graduates must first be qualified to take the NCLEX-RN in order to meet the personnel needs of the medical community and provide qualified, competent, and safety-conscious care.

Evidence of the Problem From the Professional Literature

In the United States and its territories, in order to practice as a professional nurse, graduates of nursing programs must pass a licensure examination. For NECC graduates, successfully passing the NCLEX-RN is mandatory in order to practice as an RN. Student success is also critical because boards of nursing routinely monitor NCLEX scores and approve nursing education programs to ensure that all regulatory standards are met (NCSBN, 2011; Morgan, 2012). The NCLEX-RN measures a nurse's minimum level of competency for entry-level practice. Between April 2011 and September 2013,

285 NECC graduates took the NCLEX-RN, and 236 passed (NCSBN, 2013a).

Currently, compared to graduates from similar programs in the Boston jurisdiction, 64%

of NECC graduates passed, whereas nationwide, 82% of all graduates passed from April

to September 2013 (NCSBN, 2013b). The benchmark for the ACEN is defined as "the

program's three year mean for the licensure exam pass rate will be at or above the

national mean for the same three-year period" (ACEN, 2014, p. Associate-6). The 3-year

mean NCLEX-RN pass rate for NECC in 2011 through 2013 was 84%, whereas

nationally, the mean for the same period was 87% (EOHHS, 2014). For nurse

graduates, passing the licensure examination is not optional. Graduation success and

NCLEX-RN success are equally important to NECC nursing students and other

stakeholders, including the college, local employers who will hire and employ new

graduate RNs, and future students. Requirements to graduate include "completion of 60

credit hours with a cumulative grade point average of 2.00 or higher, [and] completion

of all program/requirements of the college including payment of financial obligations to

the college" (███ Nurse Education Department, 2014, p. 19). When NECC graduates

meet all of the graduation requirements, they are eligible to apply for the NCLEX-RN.

Current nursing literature supports the importance of proper and timely

assessment of students' achievement and clinical abilities throughout their prelicensure

education. In nursing education, students with the best content knowledge and test-

taking skills are most prepared for the NCLEX-RN and will likely pass it (Spurlock,

2013; Young, 2008). Researchers have noted that nurse educators must redefine

educational and practice guidelines that drive innovation in undergraduate nursing

programs and success as new nurses enter the workforce (Hendricks, Wallace, Narwold, Guy, & Wallace, 2013; Oermann & Gaberson, 2009). Additionally, Hendricks et al. (2013) discussed the importance of understanding students' perception of learning ability during clinical education placement to move theory to practice with test scores. To demonstrate, nurse educators use Bloom's taxonomy (1956) as a framework to plan teaching-learning strategies that foster students' knowledge base (e.g., memorizing normal blood pressure ranges) and improve higher level critical thinking skills such as analysis, application, and synthesis.

Additionally, Bloom's taxonomy is used at NECC as a framework in the formulation of test questions to assess students' content knowledge or skill performance. Bloom's theory is organized around student characteristics, instruction, and learning outcomes (Yates & Sanford, 2013). For example, a nursing instructor may pose questions to students during clinical or write test items that range from simple to complex, asking students what nursing intervention they would choose to help alleviate pain in order to assess critical thinking ability. Billings and Halstead (2009) discussed the importance of the teaching-learning climate, which "must allow for time and flexibility so that the learner can experience and make meaning of that which is to be learned" (p. 198). Therefore, exploring strategies that could improve instructional practices, adult learning strategies, and best practices to promote critical thinking in students might also influence success rates of first-time NCLEX test-takers.

There has been extensive literature in nursing regarding the importance of best practices to promote critical thinking skills in nursing students and nurses. Additionally,

graduates' success is critical to hospitals and local employers that will hire and employ new NECC graduate RNs. From a nursing perspective, while the students' approach to learning has been well established in education, the associations between perspectives of learning, learning outcomes, and evaluation styles are not well known in nursing education (Abbaszade, Borhani, & Sabzevari, 2013; Carrick, 2011; Spector & Odem, 2012). In addition, Nilsson and Silen (2010) indicated that the execution of nursing curricula and students' understanding of nursing is related to clinical practice following graduation.

Research supports the need for NECC faculty members to build on anecdotal evidence that specifically addresses how student nurses enrolled in the nursing program prepare for the NCLEX exam during their prelicensure period. Moreover, if students do not progress through the program, their careers could be brought to a standstill when they do not demonstrate satisfactory clinical performance or academic achievement on exams. In addition, Oermann and Gaberson (2009) claimed, "characteristics about decision making and problem solving ability must be developed by students as they progress through the nursing program" (p. 146). Accreditation mandates that nursing programs retain all student evaluations (ACEN, 2013; ▮▮▮▮, 2013b). Effective nurse educators are able to plan, facilitate, and evaluate students as they transition through the nursing program to develop complex skills and knowledge that will enable them to transition effectively into nursing practice after graduation.

Consideration of the adult learner is pertinent because undergraduate and postgraduate students have very different learning needs, including those related to past

experience, practice, and knowledge (Crisp & Cruz, 2009; Davis, 2013). As stated previously, this situation is compounded by some faculty members not understanding where various components of core curricula are being taught using effective teaching-learning modalities, adult learning strategies, and best practices to promote students' critical thinking skills that will help them successfully pass the NCLEX-RN. Furthermore, Niu, Behar-Horenstein, and Garvan (2013) supported the fact that instructional interventions do influence the critical thinking skills of college students.

Possessing critical thinking skills in nursing education allows an individual to interact and respond to healthcare providers and meet the personnel needs of the medical community as a qualified, competent, and safety-conscious nurse.

Definitions

The following definitions were operative in this study:

Adult learners: Persons who do their best when asked to used their experience and apply new knowledge to solve real-life problems (Billings & Halstead, 2009).

Application (App): Any online software application tool that provides one-stop access to a resource that is needed (Watkins & Corry, 2001).

Appreciative inquiry (AI): An approach to organizational analysis and learning developed around 1980 based on Cooperrider's assumption that engaging people produces effective, positive change using positive inquiry to draw out the best from people (Cooperrider et al., 2008).

Community college: A 2-year, associate-degree-granting institution or certificate-awarding institution (AACC, 2013).

Clinical reasoning skills: The ability to gather and comprehend facts while recalling knowledge, skills, and attitudes about a situation as it unfolds. (Meakim et al., 2013).

Critical thinking: Higher order cognitive construct whereby an individual engages in purposeful reflection and logic that is self-directed by identifying the assumptions of another that is contrary to his or her own (Brookfield, 2010; Niu, Behar-Horenstein, & Garvan, 2013; Weber & Kelley, 2014).

Diverse student: A postsecondary education student who is multicultural, multiethnic, and should not be subject to discrimination "on the basis of race, color, religion, national origin, age, sex, sexual orientation, gender identity or expression, genetic information or disability status" (████, 2013a, p. 48).

Instructional practices: Teaching-learning strategies that meet the objectives, competencies, and outcomes of the curriculum that allow students to have the opportunity for maximum learning (Billings & Halstead, 2009).

National Council Licensure Examination Registered Nurse (NCLEX-RN): An entry-level examination for professional nursing that measures a candidate's knowledge and competencies to engage in safe and effective nursing practice (NCSBN, 2013a).

Nontraditional student: Term applied to a person attending college for the first time or returning to college who attends school part time, works full time while enrolled, is financially independent, has dependents other than spouse, is a single parent, and/or does not have a high school diploma (Shillingford & Karlin, 2013).

Peer-assisted learning: Learning with and between a more experienced student and a less experienced student (Zentz, Kurtz, & Alverson, 2014).

Registered nurse: In the United States and its territories, in order to practice as a professional nurse, graduates of nursing programs must pass a licensure examination that measures the competencies needed to perform safely and effectively as a newly licensed, entry-level registered nurse (NCSBN, 2013a).

Simulator: A replica model or manikin used to learn, practice, and gain competence in simple techniques and procedures (Cant & Cooper, 2010).

Student nurse: Person enrolled in a "Massachusetts Community College Associate in Science Degree Nurse Education Program which prepares nurses who are responsive to the multiple health care needs of a changing society" (██████, 2007).

Transcultural student: "Students of color comprise 63% of the student population and originate from 97 countries" (██████, 2011, p. 2).

Urban student: College student who resides within the perimeter of a metropolitan area. This study specifically considers students in the northeastern quadrant of the United States (MPAC, n.d.).

Significance

Studying the problem of why a significant number of NECC graduates do not pass the NCLEX-RN on their first attempt, resulting in chronic fluctuations in NCLEX-RN pass rates, is significant for not only local nursing programs, but also regional programs. To reiterate, the reality of insufficient numbers of competent RNs for the profession and ramifications related to failing the licensure exam are of significant

concern. These repercussions are negatively impacting not only NECC, but also other nursing programs that are experiencing similar problems with chronic fluctuations in percentages of NCLEX-RN pass rates. As stated previously, it is vital that NECC nursing students pass the NCLEX-RN their first time because the chronic fluctuation in first-time pass rates will potentially create a shortage of qualified graduate RNs in Massachusetts. The diminished numbers of nurses who are granted professional licensure to enter the nursing workforce may have a catastrophic impact on the nursing profession.

NECC faculty members and administrators are committed to providing students with the most effective nursing education. Effective education about nursing responsibilities, regulated healthcare environments, and federal scrutiny is in place to ensure that future nurses will practice competently. Educational researchers recognize the importance of clinical practice placements to help students process information in a real work environment (Forbes, 2010; Gillespie, 2013; Wangensteen, Johansson, Bjorkstrom, & Nordstrom, 2012). Being ineffectively prepared is detrimental to graduate nurses because the roles of the physician and professional nurse have blurred, heightening the importance of the nursing role (Moses et al., 2013). Student nurses' beliefs about prelicensure NCLEX-RN preparation performance vary, and the scarcity of professional nursing research and literature addressing prelicensure preparation tends to magnify this problem.

The preparation of entry-level nurses is focused on professional competence, and thus NECC faculty members are challenged to be forward thinking in their nursing

curriculum to adequately prepare students to competently practice as graduate nurses. Improvements in NCLEX-RN pass rates may also be contingent upon skill acquisition and student learning experiences where students have sufficient practice experiences available and instructor supervision with acutely ill patients, their families, and other healthcare personnel. Consequently, many nursing programs conduct student evaluations of faculty performance when courses end (Rayner, 2007; Wolf, Bender, Beitz, Wieland, & Vito, 2004). A balanced and mixed approach to teaching and learning in nursing is important; however, these authors reiterated that there is no one-size-fits-all form of assessment, pedagogy, or curriculum to meet individual students' needs in the clinical setting.

The prelicensure period in nursing school can be stressful and intimidating for many students. According to Kim, Oliveri, Riingen, Taylor, and Rankin (2013), "not only students' clinical performance, but also critical thinking abilities are negatively impacted by stress and anxiety" (p. 43). Research has shown that undergraduate nursing students are critical of faculty who lack confidence in the classroom or clinical setting (Billings & Halstead, 2009; Wolf et al., 2004). Therefore, it is important that nursing faculty possess credentials and expertise appropriate to the program level in which they teach.

Inadequately prepared nurses threaten the healthcare environment in terms of litigious claims when they fail to follow through with provisions for safe, effective nursing practice (Klaassen, Smith, & Witt, 2011). In the beginning of their first semester, students may be given latitude by their instructors to make errors in judgment

or skill proficiency during laboratory practice. However, the expectation of their instructors and the general public is that student nurses will progress in performance from novice student nurses in the lab and continue to demonstrate safe clinical behavior to the graduate nurse level (Benner, 1984).

Lack of critical thinking skills necessary for competent, safe practice among student nurses impacts every student nurse and future graduate. Some nursing faculty members believe that their personal reputation and the college reputation could be at stake if a student or graduate nurse makes a grievous error inside or outside of the nursing laboratory, even following graduation. NECC faculty members understand the importance of systematically preparing their graduates for the realities of clinical nursing practice. Furthermore, if the NECC nursing program and college do not effectively prepare students for relevant, safe practice, clinical affiliation agreements with the nursing program and area agencies or hospitals may be jeopardized. For example, every semester, clinical agencies and hospitals that host NECC nursing students and instructors determine the suitability of healthcare programs in order to promote student participation in patient care without risking violating patients' right to safe, competent care.

When students' clinical performance does not meet accepted standards, host agencies and stakeholders may not renew their affiliation with the nursing program. Forbes (2010) stated that inadequate nurse preparation impacts the readiness of new graduates to provide the care that is expected by their employers. Furthermore, this dynamic may impact graduate nurses' chances for future employment if the agency

chooses not to recruit students. Lacking high-quality clinical placements to train future

nurses can be detrimental to the NECC nursing program by potentially intensifying the

existing shortage of competent nurses who will graduate. Young and Paterson (2009)

supported the idea that graduates of nursing programs must meet standards of practice

that span many clinical setting and client contexts.

Nursing faculty members understand why it is important to respond to both

clinical practice and educational trends, especially when looking at the kinds of nurses

the NECC hopes to graduate. Respectively, more recent 3-year NCLEX pass rates for

2013 were 87%, 82%, and 64% (NCLEX, 2013). If NCLEX first-attempt pass rates

continue to fall below national standards, they may cause the program to not become

accredited by the ACEN in the future. Exploring strategies that promote effective

instructional practices, adult learning strategies, and best practices to promote critical

thinking skills in students is crucial to attain and sustain ongoing accreditation status

with the MBON. Moreover, nursing instructors are responsible for supporting students'

learning in dynamic and chaotic environments. At the same time, students must

progressively "demonstrate deliberate actions that display the most effective and

appropriate responses under challenging circumstances" (Myrick, Yonge, & Billay,

2010, p. 82). Similarly, these complex clinical environments in which students learn

and work directly influence their learning outcomes (Bourgeois, Drayton, & Brown,

2011). Faculty members and administrators at NECC understand the importance of

maintaining high standards of clinical performance and academic preparedness for

nursing careers, and therefore NECC graduates must be able to reflect competent, safe practice.

Time specifically designated for effective discussions or the assessment of students' critical thinking ability may be minimal or absent because a clinical group may have anywhere from seven to 10 students. Student nurses enrolled in community colleges need adequate support and supervision in order to enhance their analytical skills for NCLEX success. Faculty members are responsible for recruiting and retaining future nurses who can function as competent health care providers in a rapidly changing health care system. There is currently a deficiency in knowledge regarding the factors and forces at NECC and how faculty members can make adjustments in their instructional practice to introduce specific strategies to improve students' critical thinking skills in an effort to improve NCLEX-RN first-time pass rates.

Guiding/Research Question

The purpose of this research and project study was to discover instructional strategies that could help NECC students develop problem solving and critical thinking skills in order to improve NCLEX first-time pass rates. The guiding question for this research and project study was the following: What teaching-learning strategies can the NECC nursing program implement in the curricula to improve students' critical thinking skills and problem solving skills in an effort to improve NCLEX first time pass-rates? Subquestions were:

1. What strategies do former NECC graduates use to develop problem solving and critical thinking skills?

2. What strategies do former NECC graduates say that faculty used that helped them in preparation for NCLEX?

3. What instructional teaching methods/instructional practices do former NECC graduates say their instructors implemented that promoted and enhanced critical thinking skills and problem solving skills in nursing students?

These research questions were in alignment with a qualitative case study research design using appreciative inquiry to explore and examine which teaching-learning strategies used by NECC faculty members are currently effective instructional strategies. These questions aligned with appreciative inquiry because using the AI process helped me to uncover students' perspectives about when they felt they were at their optimal performance for NCLEX preparation. The AI process is "generative and focuses on pursuing possibilities for practice by developing and actualizing capabilities" (Chapman & Giles, 2009, p. 298). The data yielded information about current and past strategies used by NECC instructors and students that can enhance NECC students' problem solving and critical thinking skills in order to pass the NCLEX on their first attempt.

Nursing education research has shown that inadequacies in students' problem solving ability and critical thinking skills may result in failure on the NCLEX. Student nurses are expected to engage in safe and effective nursing practice. Consideration of the nursing student as an adult learner is pertinent during prelicensure because undergraduate students may come from different backgrounds or have very different learning needs that require a more individualized and learner-centric instructional approach. Inadequate nurse preparation may cause students not to progress through the

curriculum, jeopardizing their future nursing careers. If NECC graduates do not pass the national certification exam on their first attempt, this lack of eligibility increases the likelihood that the nursing shortage will continue in Massachusetts. This situation has the potential to intensify the existing shortage of competent graduate nurses who will graduate, thereby adding to the current national shortage of qualified RNs.

Review of the Literature

A variety of methods were used to explore instructional practices, adult teaching-learning strategies, and best practices to improve critical thinking skills in undergraduate students. A comprehensive search for completed primary, peer-reviewed research from the last 5 years was completed using multiple databases: ProQuest Central, Academic Search Complete/Premier Cumulative Index to Nursing and Allied Health Literature (CINAHL), and Education Resources Information Center (Eric). The key terms for this literature review included: *adult learners, adult learning strategies, effective learning strategies, first-time NCLEX-RN success, undergraduate nursing student, teaching-learning strategies, nursing education instructional practices, critical thinking skills and best practices, commercial standardized review package and test-taking skills, adult learning theory, adult learning theorists, Malcolm Knowles, constructivist theory,* and *appreciative inquiry (AI)*.

This chapter is arranged into four major sections: (a) adult learning theory, (b) appreciative inquiry, (c) constructivist theory, and (d) effective teaching-learning strategies in nursing education. Each section is further divided into topics that cross over on the overarching framework of this project study, which is graduates' passing the

NCLEX-RN on their first attempt. A combination of theories from appreciative inquiry and constructivist theory served as the theoretical foundation for this project study. Perspectives on strategies that helped students succeed on NCLEX can be analyzed through the theoretical frames of Cooperrider and Whitney (2005), as well as through Knowles's (1978) work on adult learners.

Knowles's Adult Learning Theory

In fundamental nursing courses and at NECC, faculty members teach critical thinking skills that emphasize higher level decision-making processes required to render safe and effective nursing care and pass the NCLEX. Knowles's education theory explores characteristics of adult learners through multiple perspectives on how adults learn. Knowles's (1980) theory describes adults from a psychological perspective as "persons with a self-concept of being self-directing and being responsible for their own life" (p. 56). Brookfield (2010) agreed with Knowles, adding, "People who are not in crisis are nevertheless often eager to experiment with new ideas, changes in behavior, and new structures" (p. 114).

Knowles developed the six tenets of education theory, which serves as a framework that contributes to the understanding of adults as learners (Knowles, 1973; Knowles, Holton, & Swanson, 2011). One tenet is that adults want to be seen by others and treated by others as being capable of self-direction. In nursing education, it is important that nursing thought flows along a continuum of concrete thinking and abstract thinking (Burns & Grove, 2005). Therefore, in order to promote NCLEX success, graduates need to provide documented evidence of understanding their nursing

role and responsibility because they are accountable for promoting positive patient outcomes.

Improving upon students' problem solving ability and critical thinking skills is a continuous process beginning early in nursing education and continuing throughout individuals' nursing careers. According to Knowles (1970), "since interests are expressions of preference among adults, adult educators should not make assumptions about what people would be interested in rather than finding out from them" (p. 94). As stated previously, the associations among perspectives of learning, learning outcomes, and evaluation styles are not well known in nursing education (Carrick, 2011; Abbaszade, Borhani, & Sabzevari, 2013; Spector & Odem, 2012). As undergraduate programs are challenged to ensure competence of their new graduates, student outcomes must be validated, refined, and expanded, as part of curriculum development (Giddens, 2012).

At NECC, students generally learn about nursing theory and attain hands-on skill practice to develop higher level thinking in traditional instructor-centered classrooms and laboratories. To promote practice in critical thinking and problem solving, students must learn and use critical thinking skills in a continual process that occurs inside and outside of the classroom (Lewis, Dirksen, Heitkemper, & Bucher, 2014; Nacos-Burds, 2010). How nursing instructors help students develop the capacity to critically think, and ways in which those experiences and learners are understood, must be connected so that graduates pass the NCLEX on their first attempt. Knowles's theory aligned with the

principles of the AI process in this study because I asked former NECC graduates about

what they did in order to successfully pass the NCLEX.

Appreciative Inquiry

Knowing what motivates student nurses to learn, what interests them during

learning, and what choices they make regarding their own learning may hold potential

for increased NCLEX-RN pass rates. Appreciative inquiry (AI) is an approach to

organizational analysis and learning developed in the 1980s by Cooperrider and his

colleagues. AI philosophy is based on Cooperrider's assumption that engaging people

produces effective, positive change using positive inquiry to draw out the best from

people (Cooperrider, et al., 2008). AI is a theory of change; therefore, I let the

participants decide the answers to research questions that made up the appreciative

inquiry in this study.

I wanted to hear the positive perceptions of the participants as a starting point

because data are richer and more valid when participants put things into their own

words. The four phases of AI are discover, dream, design, and deliver (Cooperrider et

al., 2008). For the first process, the discovery, I invited graduates to share stories about

what "worked" for them that they had done on their own to achieve a passing score on

NCLEX on the first try. In the second inquiry process, the dream phase, I explored

stories from interviews conducted in the discovery step to elicit key themes. Reed

(2007) referenced the third inquiry process or the design phase as *provocative*

propositions because the inquiry moves abstract ideas to practical ones by being

grounded in what has worked in the past. The final phase, the delivery phase, begins

with understanding more than one provocative proposition and involves building an action plan using the past, present, and future strengths of the organization.

Current nursing literature supports the importance of proper and timely assessment of students' achievement and clinical abilities throughout their prelicensure education. This understanding aligns with Cooperrider's premise based on five progressive principles from theory to practice. Cooperrider's five principles of AI begin with "(1) The Constructivist Principle, (2) Principle of Simultaneity, (3) Poetic Principle, (4) Anticipatory Principle, and (5) Positive Principle" (Cooperrider, Whitney, & Stavros, 2008, pp. 8-10). For example, the first AI principle inspires change agents to pursue understanding and knowing multiple and more fruitful ways of making meaning from something. This understanding aligns with Knowles's (1978) premise that students' orientation to learning new content is based on gauging which assumptions are realistic in regard to a particular learning outcome, as well as what instructional strategy is important. Each of these is applicable to how adults learn; it is important to know what motivates students to critically think and problem solve in order to tap into innovative teaching-learning strategies aimed at improving student learning and increasing NCLEX-RN first-time passing rates.

Constructivist Framework

Using a constructivist framework during the 2 years of the program to identify stakeholders' strategies that are making student nurses successful on the NCLEX could potentially contribute to improving students' critical thinking skills and improve NECC's first-time NCLEX-RN pass rates. According to Weimer (2002), "knowledge cannot

simply be given to students, they must construct their own meanings" (p. 11).

Constructive thinking from a positive point of view is justified in learning and teaching

environments because positive questions focus on solutions rather than problems

(Kowalski, 2009). Constructivist theory exemplifies how the development of knowledge

through learning takes place when a learner's understanding of subject matter is fully

applied to the learner's experience (Nunes & McPherson, 2007). Special attention to the

quality of teaching-learning strategies that enhance students' ability to critically think is

of utmost importance in nursing education. In the development of a constructivist

learning process, Merriam (2008) emphasized, "learners connect to their experience

through reflections on that experience, and learning is located in reflection" (p. 64).

Effective Teaching-Learning Strategies in Nursing Education

In teacher-centered classrooms, students remain in a passive "teach me" mode. In

student-centered classrooms, innovations in clinical education CSRP tools are geared

toward reflective and evaluative exercises enabling students to focus on their strengths or

identify areas of need. The CSRP enables learners to identify their personal learning

style and use recommended study strategies related to that style.

There is some research indicating that the use of certain predictors will allow

early identification of those students who are likely to have difficulty in passing the

NCLEX-RN, thus providing adequate time and opportunities for appropriate

interventions (Lockie, Van Lanen, & McGannon, 2013). One body of literature

indicates that there is a significant correlation between performance in science-based

prerequisite courses and performance throughout a program, including NCLEX-RN

performance (Pitt, Powis, Levett-Jones, & Hunter, 2012). Specifically, these researchers found "four categories that potentially impact nursing students' academic performance and attrition: demographic, academic, cognitive, and personality/behavioral factors" (p. 903). NECC's mission is to serve the community, in terms of both education and providing service (███, 2014). Therefore, the college is obligated to work with students who may not meet higher standards for admission. As stated previously, one program-specific quality measure among nursing programs is the pass rate on NCLEX examinations. For example, Loftin, Newman, Gilden, Bond, and Dumas (2013) asserted that it is imperative for nursing faculty to examine and identify teaching-learning factors and instructional strategies in nursing education that positively influence and effectively contribute to successful program completion and first-time NCLEX pass rates of minority students.

Using a constructivist framework could potentially inform nursing faculty about effective teaching-learning strategies in nursing education because a growing body of literature points to the need to rethink the traditional in-class lecture based model and instead offer adults effective instructional practices with greater student-centered learning activities such as problem-based learning and simulation in "flipped classrooms" where content is offloaded for students to learn on their own and class time is more engaging (McLaughlin et al., 2014). With personal constructivism, nursing students can be transformed when they make connections to previous knowledge or experience through interaction with the content.

Other factors, to a lesser degree, suggest that student success and failure in nursing education courses occur more often among young males due to stereotypical views of other adults, isolation, and a lack of successful role models (McLaughlin, Muldoon, & Moutray, 2010). Investigating how students interact with teaching-learning content is important, because according to Bristol (2012), "student success is dependent upon students using some of the tools to which faculty already have access (e.g. online quizzing tools, text messaging, electronic health record, standardized examination reports) [which] can help engage students on multiple levels" (p. 83). The vision for nursing education in the 21st century should be supportive of a variety of instructional strategies to generate perceptions of active learning strategies and preference for delivery formats.

Implications

For this project study, I sought to discover which instructional strategies the faculty members use at NECC, as well as what students have done on their own to successfully pass the NCLEX-RN exam the first time. The principles of AI helped to inform the project study about the nursing program's current positive attributes and instructional strategies. The appreciative inquiry process provided me the opportunity to inquire of the former graduates of the NECC nursing program who passed the NCLEX-RN examination on the first try regarding what had been successful and beneficial for them in terms of problem solving and critical thinking skill development. These AI processes served to inform the data generated for this study. These processes served to identify the instructional factors associated with efficacious teaching-learning strategies

that enabled former NECC nursing graduates to pass the NCLEX-RN on the first administration. These positive inquiry responses included personal and archival program documents associated with former students' overall nursing GPAs, annual program/accreditation reports, nursing theory grades, and CSRP NCLEX-RN preparation strategies, which were helpful in discovering certain instructional factors that helped former nursing graduates of NECC develop problem solving and critical thinking skills. An outgrowth of these AI processes was the identification and recommendation to NECC nursing faculty members and administrators of effective teaching-learning strategies that the nursing program must consider for implementation.

The goal of this study was to learn what instructional practices of faculty members serve to promote and enhance the problem solving and critical thinking skills of student nurses. Therefore, subgoals of increasing the NECC NCLEX pass rate might be achieved. The four phases of AI are discover, dream, design, and deliver (Cooperrider et al., 2008). The AI process provided the opportunity to learn from former students and program graduates as they shared their learning experiences at NECC. This sharing revealed the various instructional strategies that were perceived strategies implemented by faculty members or students themselves that enhanced students' ability to pass the NCLEX-RN on the first administration.

Summary

It is crucial that nursing faculty members preparing future nurses for clinical practice address the issue of failure on the first-time administration of NCLEX-RN in order to effectively guide their teaching actions. All nursing faculty members and

administrators want students to be successful during prelicensure nursing education that will later qualify them to take the national licensure exam after graduation. Exploring and examining the problem of why a significant number of graduates do not pass the NCLEX-RN was timely because the diminished numbers of nurses granted professional licensure to enter the workforce may have a catastrophic effect on the nursing profession.

Healthcare employers, NECC community stakeholders, and the public all demand a highly qualified RN workforce. Discovering factors associated with efficacious strategies designed to promote and enhance critical thinking and problem-solving skills could lead to NECC graduates being more likely to be successful on the first administration of NCLEX-RN and to join the workforce as RNs. Appreciative inquiry was an approach through which I identified these strategies and how they were evident. In addition, the AI approach made it possible to identify students' experiences of effectively learning how to think critically and problem solve appropriately in their learning environment. As stated by Reed (2007), a researcher using AI should "start by exploring the basic principles of AI, ask questions about the achievements, the things that people felt went well, and then find out what people think helped these things go well" (p. 5). This project study involved the discovery of the instructional strategies that NECC graduate nurses believe have positive implications for problem solving learning, developing critical thinking skills, and passing the NCLEX-RN exam on the first attempt.

Section 2: The Methodology

Introduction

In this qualitative case study, research provided insight into the ways in which selected former students of NECC perceived strategies implemented by them or by nursing faculty members that enhanced their ability to pass the NCLEX-RN on the first administration. The use of two focus groups using a semistructured interview process and a series of open-ended questions/prompts based on guided questions improved the richness and validity of the data collected. Document review was used for the collection of statistical program data and served to assist with triangulation (Kramer, 2010; York, 2010). Data drawn from archival nursing program documents helped me to demonstrate greater depth of the case for readers to make their own interpretations of the findings.

Ultimately, this study serves as a catalyst in the consideration of curriculum changes and clinical competencies in the nursing program at NECC. Qualitative research is interpretive research; therefore, a case study approach enables the inquirer to explore processes, activities, and events in a sustained and intensive experience with participants (Creswell, 2009). The advantage in a case study design is that the research process is an emergent one that entails recognizing multiple forms of data, such as interviews, focus groups, and document review, rather than relying on a single piece of data.

Using appreciative inquiry concepts, assumptions, and principles enables a researcher to probe beneath the surface of a situation (Reed, 2007). Combining the AI 4D cycle in which the processes of discovery, dreaming, designing, and delivery take

place "lays a foundation from which AI cycles and processes go ahead" (Reed, 2007, p. 39). This research agenda incorporated the AI approach in an in-depth qualitative case study of the NECC program that involved assessing perceptions of former students and identifying which factors/teaching-learning strategies helped students to develop problem solving and critical thinking skills to assist them in passing the NCLEX-RN on their first attempt.

A case study methodology using the appreciative inquiry 4-D cycle embedded in semiscripted interviews serves as a change process. I used information gained from former students about what they perceived were effective teaching-learning strategies faculty implemented that enhanced their critical thinking and problem solving skills in order to pass the NCLEX the first time. NECC first-time pass rates of graduates on the NCLEX-RN are of utmost importance to all NECC stakeholders. Leaders within the nursing program can consider implementing effective teaching-learning strategies that are central to prelicensure preparation using the AI 4-D cycle, thereby improving student outcomes and potentially improving NCLEX-RN performance and pass rates.

As Cooperrider and Whitney (2005) pointed out, "the AI framework for investigation works in the affirmative, continually seeking to discover what gives life to the organization and its members" (p. 19). In addition, Knowles (1970) suggested that in educative experience, "whether or not an individual is put in the role of active inquirer versus the role of passive recipient after knowledge greatly affects the direction and speed this dimension of growth" (p. 26). As I paid attention to the past and present and interfaced data from NECC former graduates' interviews, focus group, and document

review, the AI analogy and Knowles's premise served as a framework for this qualitative inquiry in a comprehensive way.

Population and Sample/Selection

The local setting of this research study was a multicampus urban community college located in the northeast region of the United States. The research participants for this study were 22 registered nurses who graduated from NECC between 2009 and 2014. I used a purposeful sampling of 15 former graduate nurses who participated in the focus group interviews (see Table 1). According to Creswell (2012), in "purposeful sampling, researchers intentionally select individuals and sites to learn or understand the central phenomenon" (p. 206). This research perspective aligns with Creswell's (2009) point of view that from a pragmatic perspective, researchers are free to choose the study methods, techniques, or procedures of research that best meet their needs and purposes" (p. 11). The case study approach highlighted the specific events that were specific to this case. For example, Carmichael and Farrell (2012) reported on a case study approach that was relevant to ascertain students' ability to gain an understanding of critical thinking to their discipline and new concepts.

I conducted multiple focus groups with former graduate nurses. I included a purposeful selection focus group beginning with a demographic profile questionnaire to gather background on each participant (see Appendix B). In addition, review of 25-50 archived documents, including annual program/accreditation reports and CSRP program documents, was conducted. My intent was not to identify these individuals by name. The NCLEX-RN CPR "is an individualized, two page document sent to examinees that

indicates how many questions were answered and how many are required to be evaluated and no further diagnostic information is provided" (NCSBN, 2014).

The purpose of these data collection methods was to explore and examine effective teaching-learning strategies used by NECC faculty members that potentially contributed to NECC students' problem solving and critical thinking skills in order to pass the NCLEX-RN on first administration. The AI approach was reflective for me because, according to Reed (2007), "AI focuses on supporting people getting together to tell stories of positive development in their work that they can build on" (p. 42). I used the AI approach to identify and appreciate the best aspects of teaching-learning strategies used by NECC faculty members that potentially contributed to NECC students' problem solving and critical thinking skills.

Permission to view data and engage former graduates was sought and granted through the NECC nursing department and the Walden institutional review board (IRB) to ensure that requirements for informed consent, protection from harm, and confidentiality of participants were being met. Once approved, I telephoned a purposeful sample of 25 graduates from the nursing department roster during the period 2009-2014, describing the purpose and the procedures in the study, and invited them to participate. Following this contact, 25 potential participants were emailed one letter titled "Focus Group Invitation/Consent Form." I maintained a profile sheet for all research participants (see Appendix B).

While conducting the study, I ensured privacy for the participants and college by keeping all study information located in a secure area in my home office in a locked file

cabinet. Copies of data were stored on a backup jump drive to which only I had access.

I obtained permission from the university executive staff data site research office and

vice president as well as from the participants prior to the study. The research

procedures ensured privacy during data collection for the focus group to maintain as

much confidentiality as possible. Participants' names were not recorded in the research

records. The data will be stored for at least 5 years in a locked cabinet in my home

office. No one other than me viewed data that contained identifiers because I

independently transcribed audio recordings and performed data collection.

Most nursing programs, including NECC, maintain an annual graduate roster in

the NECC nursing department. When a nursing department experiences a decline in the

NCLEX-RN passing rate among its graduates, faculty want to search for reasons behind

falling rates (Strom & Reiss, 2010). A program's leaders may want to analyze former

graduates' academic performance records on file to effectively seek solutions that could

reverse negative trends. Pabst, Strom, and Reiss (2010) reported that focus groups are an

appropriate tool to better understand the student perspective about the NCLEX-RN and

preparation activities. Lodico, Spaulding, and Voegtle (2010) noted that "with focus

group interviews, the researcher is able to collect data from multiple participants and

also to observe and record the interactions and group dynamics that unfold" (p. 121).

A case study research design helps facilitate the construction of contextualized

experiences of participants and systematic procedures during the analysis phase

(Ottenbreit-Leftwich, Glazewski, Newby, & Ertmer, 2010). I believe that conducting

multiple focus groups provided the interpretive lens to identify and appreciate the best

aspects of teaching-learning strategies used by NECC faculty members that potentially contributed to NECC students' problem solving and critical thinking skills.

Bogdan and Biklen (2007) stated that "focus groups usually consist of seven to ten people and a facilitator fostered to talk among the participants about particular issues" (p. 109). When a study involves extensive interviewing, Bogdan and Biklen (2007) recommended picking a reasonable number of key informants when using an audio recorder and spending an amount of time in each interview that makes sense in terms of the work involved in transcribing it.

Assuming sufficient data were generated, further analysis may also provide predictive value or probability of NECC graduates passing the NCLEX-RN on the first attempt. Therefore, articulating the study's research questions helped to identify emerging phenomena, analysis of themes, overall findings, and discussion. When data and themes were formed and collated, the descriptions and themes became the basis for the AI 4-D cycle of discovery, dream, design, and deliver.

Table 1

Demographic Information

Participant	Sex	Graduation date	Age group	RN licensure	CPR
01	M	2011	36-45	8/5/2011	Yes
02	F	2014	18-25	8/5/2014	Yes
03	M	2012	36-45	7/11/12	No
04	M	2009	46-55	9/1/11	Yes
05	F	2013	26-35	2/21/14	No
06	F	2012	18-25	2/28/13	Yes
07	F	2011	26-35	3/16/12	No
08	M	2011	46-55	12/12/11	No
09	M	2013	26-35	8/6/13	Yes
010	F	2011	36-45	3/7/12	No
011	F	2011	26-35	4/6/12	Yes
012	F	2011	26-35	7/18/11	No
013	F	2012	36-45	5/2/12	Yes
014	F	2013	18-25	3/26/14	Yes
015	M	2012	36-45	1/30/13	Yes

Ethical Protection of Subjects

To support participant privacy, researchers need to respect the participants and the sites for research (Creswell, 2009). Researchers need to develop trust with their research participants by creating an ethical working relationship. It was important that I ensured the protection of participants, ensured that the participants understood the information in the consent form, and clarified if necessary. In addition, I needed to anticipate and address any ethical dilemmas that might arise during the course of the study. In advance of the research study, I informed participants that I was an assistant nursing faculty member; however, my researcher role was as a doctoral student and separate from that role that was explicitly noted in the focus group consent form. As primary investigator, I held no supervisory authority over the participants. In all stages of the research process, practicing and following ethical guidelines, obtaining informed consent, and respecting the participants were vitally important and served to ensure reliability and validity of the study.

After securing Institutional Review Board (IRB) and University Research Review (URR) approval 08-12-14-0153641, I emailed the nursing department chairperson and dean at NECC for permission to review documents relating to former graduates who passed the NCLEX-RN, including their email addresses and phone numbers, in order to invite them to participate in this study. I obtained permission from the university executive staff data site research office and vice president as well as the participants prior to the study. In addition to selectively choosing participants for a research study, a researcher has a responsibility to the participants, the stakeholders, and the institution of

higher education (Cohen, Manion, & Morrison, 2011). I was responsible for maintaining the confidentiality of the data and ensuring that adequate provision was made throughout the implementation of the research because unforeseen ethical dilemmas might have arisen during the study.

As the researcher, I needed to establish a professional working relationship with participants, determine the sequence of the participant selection process, and respect the study site and individuals who worked at the research site. It was especially important prior to the data collection process that I secured participants' email addresses and phone numbers in order to send written correspondence describing the study and soliciting their participation. Upon receipt of the participants' responses, I notified the individuals in the study via email. Each participant was assigned a code number to ensure confidentiality and anonymity. Once permissions are in place, Creswell (2012) stated, the next steps in the participation process require purposeful sampling based on places and individuals that can best inform the researcher concerning the central phenomenon. I recorded the narrative information provided by the participants in the focus groups in such a way that the reported information was organized according to each question.

Data Collection Plan

The emailed consents were returned to me within 1 week of the original email time stamp. Twenty-two project study participants were asked to participate in one focus group scheduled at convenient times. Informed consent measures were verified when participants consented via email by stating "I consent." Data from the multiple

focus groups of 15 participants were analyzed, coded, and categorized in order to identify emergent themes based on participants' responses. Each of the audio-recorded focus groups lasted 60 minutes to provide graduates adequate time to identify the instructional factors and forces at NECC that impact the critical thinking and problem solving skills of former graduates. The interview questions were emailed to participants in advance to allow them to reflect on items in order to provide comprehensive responses to my research questions. Focus groups occurred off campus in an easily accessible conference room. The focus groups included a semistructured interview process beginning with a series of open-ended questions/prompts based on the guiding research question and subquestions (see Appendix C). Polit and Beck (2008) recommended that the researcher develop a category scheme to facilitate coding the data so that emerging concepts will be given an identification to serve as the category scheme. Once the category scheme was developed, I organized files for tracking data aligned into the 4D AI cycle framework. Triangulation was pivotal to the study's outcomes, so I used strategies that yielded the fullest possible understanding of the phenomenon of interest (Polit & Beck, 2008). The sequence of data collection began with focus groups, followed by document review.

Data from each focus group interview were audiotaped, analyzed, and decoded in order to identify recurring themes that provided evidence of effective teaching-learning strategies of nursing instructors. I believed that the most effective method to explore and examine the identified problem was by examining approximately 25-50 nursing program

documents focusing on archival data of annual program/accreditation reports and CSRP

program documents between 2009 and 2014.

Collecting and Recording the Data

The plan was to review 25-50 nursing program documents and a total of thirty

school documents examining annual program/accreditation reports, and CSRP program

documents, between 2009 and 2014 were examined. Reviewing school documents

provided me with valuable information for analysis. For the purpose of data analysis,

these documents were scanned and copied and any identifiable information was deleted.

Original school documents remained in office files throughout the study. Copies of

documents and stored data for analysis were retained on a password-protected, non-

networked computer in my home office. This action was deemed appropriate, as focus

of the analysis included examination of pertinent student data as well as emerging

commentaries from graduates' responses.

The focus groups were conducted in August 2014. I contacted potential

participants first followed by an email invitation to take part in a research study of

Student Perceptions of Effective Teaching-Learning Strategies for National Council

Licensure Examination Preparation. The inclusion criteria to participate in this research

study required that individuals passed the NCLEX-RN on the first administration during

the period of 2009 to 2014 and graduated from NECC. A major advantage of a group

format is that it enables the researcher to obtain multiple viewpoints in a short time

(Polit & Beck, 2008). In addition, the group dynamics are important because the

participants are all former NECC nursing program graduates from 2009-2014 who

passed the NCLEX-RN examination on their first attempt. Potential participants were informed they had the opportunity to read the full consent form understand the study before deciding whether to take part in the study. The duration to return the signed consent form to me was one week from the email time stamp. These individuals were asked to participate in one focus group scheduled at convenient times. Informed consent measures were verifiable when participants respond via email to the proposed study invitation and consent by stating "I consent."

Thereafter, I identified the 22 project study participants after confirmation RN licensure was verified through the Massachusetts Board of Registration in Nursing (MBORN). Participants were not excluded based on gender, age, or ethnicity. Merriam (2009) suggested that in order to ensure a study is trustworthy, the researcher should include an audit trail for member checks for generalizability.

Generating, Gathering, and Recording the Data

I developed a focus group interview protocol to ensure consistency and congruence of data collection (see Appendix B). Creswell (2012) recommended that "because extensive data collection occurs during qualitative studies, the researcher find an effective way to keep track data and evidence for emerging themes" (p. 238). I transcribed data by hand to develop an in-depth understanding by becoming completely familiar with the data. I audiotaped the focus group interviews and transcribed those interviews. I identified and included participants using pseudonyms from anecdotal information at the onset to maintain confidentiality. Examination of these interviews helped me discover effective instructional strategies that promote critical thinking skills,

and problem solving skills to assist students in passing the NCLEX-RN examination at first administration. Demographic data derived from each participant was collated according to information I received from the profile sheet.

The results of the focus group interviews, and archival document review, and analysis of effective teaching-learning strategies by former graduates of the nursing program was required to discover current and past teaching-learning strategies that could enhance NCLEX-RN test success.

Data Analysis and Validation

The qualitative data analysis began when all of the interviews, focus group, and document process were completed. The themes were categorized into the cyclic 4D AI framework according to AI assumptions and principles. The four phases of AI are to Discover, Dream, Design, and Deliver (Cooperrider et al., 2008). Text files contained headers that align with the AI framework or other information about the interview (Cabai, 2012). Data analysis began with the review and coding of interviews documents for descriptive themes, categories, and repetitive experiences.

The next stage of the qualitative analysis involved developing a category scheme to classify and index the entire data set. Polit and Beck (2008) recommended developing a category scheme and then to code data according to the categories. Therefore, data was categorized into the cyclic 4D AI framework according to AI themes. The audiotaped interviews were transcribed verbatim, responses were categorized, reviewed repeatedly, and continually coded to ensure consistency of reporting and enhance reliability. Merriam (2009) emphasized field notes or reflective journals be considered

by the qualitative researcher because they frequently contain highly descriptive thoughts about the setting from the researcher, may help form the database for the analysis, justifies data, and adds to the procedural rigor of the inquiry. Lodico, Spaulding, and Voegtle (2010), furthered this rationale adding, "researchers continually monitor their own subjective perspectives and biases by recording reflective field notes or keeping a journal of their thoughts" (p. 274). Therefore, maintaining a reflective researcher journal was an effective way to identify biases and manage them.

Another responsibility of the researcher during an investigation was to address any potential discrepant cases. Lodico et al. (2010) stated, "when negative cases are identified, the researcher should revise the hypothesis or provide an explanation of why the case does not fit" (p. 274). Therefore, I incorporated strategies to ensure the highest possible coding consistency across interviews that were addressed both logically and inductively throughout the study.

Another step in analyzing and interpreting data was to ensure credibility and control of any bias I may have possessed to ensure truth and value of the data was established through member checks, peer debriefing, and triangulation procedures. I recorded the interview data verbatim and color-coded it. In addition, this research asked participants to review the transcripts to check for transcription accuracy. It is important to reiterate, the four phases of AI are to Discover, Dream, Design, and Deliver (Cooperrider et al., 2008). These four phases served as the repositories for the participants' comments and responses from the focus groups. The identified themes were categorized into the cyclic 4D AI framework according to AI themes.

Triangulation is another important step to strengthen the study's reliability and ensure validity and accuracy to corroborate the researcher's conclusions (Lodico et al., 2010). Verification of data was collected through multiple sources including focus groups and document analysis to ensure validity was maintained. Narratives from the focus groups, and archival college documents enabled emerging information to become more appreciable during the analysis.

Procedure for Gaining Access to Participants

The data collection process occurred during August 2014 following approval from the institutional review board and the research site, and subsequently the participants' consents were returned to the researcher. In advance of this research study, another step to secure entry into the research setting and to secure permission included seeking approval of individuals. As primary investigator, I introduced myself as a Walden University doctoral student and not an employee of the college. The NECC Registrar's office maintains current students and former graduates records on file. The NECC Executive Committee enlisted cooperation in this research study for this research study through a list of graduate names from the nursing program. A document analysis was conducted to triangulate interview data. Copies of data were stored on a backup jump drive to which only I, as primary investigator (PI) had access. Copies of data were stored on a backup jump drive to which only I had access. The data will be stored for at least 5 years in a locked cabinet in my home office.

Researcher Role

The validity and reliability of a study reflects upon the credibility of the researcher (Merriam, 2009). The researcher's primary goal during the study is to add knowledge, and be nonjudgmental about what participants say, and to avoid blaming someone or something for a particular state of affairs in an organization (Bogdan & Biklen, 2007). It was unlikely this study's participants will affect former/current professional relationships because they are not current NECC students. Furthermore, my opinions, or potential biases that may surfaced during the course of the investigation were suspended throughout the data collection and reporting processes because my researcher role was to actively listen to participants comments in order to identify and learn about NECC stakeholders teaching-learning strategies. By continually confronting the data, I suspended any potential opinion or biases by understanding that my perceptions were only superficial. In addition, I kept a reflective journal throughout the research study to monitor my engagement and role.

Conclusion

The methodology of this study was driven by the local problem and research question. Presently, a significant number of the New England Community College (NECC) graduates do not pass the National Council Licensure Examination Registered Nurse (NCLEX-RN) on their first attempt resulting in chronic fluctuations in percentages of NCLEX-RN pass rates. The guiding question for this research and project study was: What teaching-learning strategies can the NECC nursing program

implement into the curricula to improve students' problem solving and critical thinking skills in an effort to improve NCLEX-RN first time pass rates?

In section three, I will describe the proposed project study including goals to address effective teaching-learning strategies for NCLEX preparation. Additionally, I will also provide a rationale for how the problem will be addressed through the content and process of the project including review of the literature addressing the proposed project. Lastly, this section will discuss needed resources, potential challenges, possible social change implications, and the importance of the project study in a larger context with local stakeholders will be discussed.

Results of Research

Results were derived from the focus groups and document review. Documents reviewed included CSRP program documents and an accreditation report. The document review provided information about how educator tools provided by CSRP are woven throughout the NECC nursing program. The accreditation report provided information about past NCLEX-RN pass rates, past nursing graduation rates, past nursing graduate job placement rates, and former graduates' program satisfaction rates. The results of the study are outlined by focus groups interviewed, former NECC nursing graduates (2009-2014). The AI 4D phases served as the repositories for the participants' comments and responses during the focus groups.

Former Nursing Program Graduates

Twenty-two former NECC graduates during the period of 2009 to 2014 who passed the NCLEX-RN on the first administration were invited to participate in the study.

Fifteen former NECC graduates consented and participated in the study. Multiple focus groups were conducted and audio recorded. Individual transcripts were typed and sent to the participant for member checking for accuracy. In other words, participants were asked to correct errors of fact or errors of interpretation so that information from the focus group transcribed by me as the primary researcher was congruent with participants' experiences.

The very first process in the AI discovery phase invited former graduates to participate in the focus groups to share stories about what "worked" for them that they have done on their own to achieve a passing score on NCLEX on the first try. Focus group interviews were transcribed verbatim, coded, and themes were categorized into the cyclic 4D AI framework. AI philosophy is based on Cooperrider's assumption that engaging people produces effective, positive change using positive inquiry to draw out the best from the past from people (Cooperrider, et al., 2008). Obtaining information about the nursing program's strengths and best practices allowed me to capitalize on those practices by designing curricula changes to improve students' problem solving and critical thinking skills, including future NCLEX-RN first time pass rates. The 4 major themes, engaging differentiated instructional methods, collaborative NCLEX-RN preparation strategies, simulation technology, and opportunities for curricular change curriculum will be discussed in detail in the following paragraphs.

Discovery Phase

During the AI discovery phase, former students were encouraged to explore what 'worked' for them that they have done on their own to achieve a passing score on NCLEX on the first try by answering the questions.

Q1. What strategies did former NECC graduates use to develop problem solving and critical thinking skills?

Subquestions:

Q2. What components of the nursing program helped students be better prepared for NCLEX-style tests that enabled them to correctly answer questions at the application and analysis level?

Emergent themes of what former students valued included differentiated instructional methods that promoted student engagement with new concepts and advanced their critical thinking and problem-solving ability. Reflecting on the transcriptions, former students used the required CSRP, commercial off-shelf software (COSS), and other commercial standardizes testing and applications (Apps) to correctly answer the questions at the application, analysis levels, and synthesis levels. A sampling of responses as follows:

P07 stated,

I used […] the virtual […] to prepare for my exams.

P014 likened the CSRP student package to its relevance of critical thinking skills and problem solving skills.

I think in my final outcome, […] really helped me compared to other books at the bookstore.

P013 stated:

Following the construct of the […], even problem solving, it's all critical thinking.

P04 described CSRP strategies that were in place at the college:

I think that the most important one was that throughout the program we would use […] testing and the […] program would obviously provide review once you complete or actually during the program first we started with fundamentals then we would move into med-surg and pysch and I think that helps a lot because by the end of the semester you will take practice tests and you would get a result and that result actually was an indication of how well you were doing because you could have an A in the class but not retain the material.

In contrast to the ease of using the CSRP student package P08 said:

[…] was very helpful, but I thought it was a little too easy so I signed up for […] online too, and I did one of their courses.

P012 spoke about this CSRP software aspect:

I always thought it would be beneficial to do an online testing process, I think that will prepare you for the test because the actual test is on computer, and the test is

timed, and the test does automatically shut off when you know [sic] approach the time limit.

P02's perception of NCLEX readiness was verified using CSRP:

On […] I felt I had more a more accurate measurement of my talent, and my readiness with […].

Reflecting on the transcriptions, former students used the required CSRP computer software, and also other CSRP applications (Apps) to correctly answer questions at the application, analysis levels, and synthesis levels. In nearly all nursing programs, faculty use a variety of methods to provide essential feedback to students about their strengths and weakness and to identify learning strategies (Oermann, Yarbrough, Saewert, Ard, & Charasika, 2009). Engaging students on multiple levels using the required CSRP software effectively prepared students to correctly answer NCLEX-style questions, and encouraged them to learn on their own with alternative technology-related tools. Students optimized their learning by developing new habits of mastering curriculum content and test taking strategies at no cost to faculty members. As the appreciative inquiry progressed, the positive perceptions became more specific, because the participants put things into their own words by answering the question:

Q4. Describe a moment of peak student NCLEX-RN preparation that was transformative for you, what was going on, and what do you feel made it so successful?

P01 spoke about transformative learning:

I think the time that was very transformative to me was when we did the

proctored exam and our professor said that we were ready to take the NCLEX

exam so that it gave us a lot of confidence that we would successfully pass the

NCLEX, also when we became more comfortable with the format of the NCLEX

questions, and when the […] program also deemed us ready to take the NCLEX

that was the point where it was transformative for me.

P05 recalled a personal moment of peak NCLEX-RN preparation:

I think it was coming to the end of a program knowing that you've completed 2

years of the nursing program and you're ready to move onto the next level I think

a lot of people the majority of the class had questions related or were asking the

instructors questions about NCLEX because that was a focus at the end so I think

that it was just the momentum of everyone really realizing that we've completed

the nursing program and that the next piece of becoming a nursing would be

passing the NCLEX I think the momentum and the excitement and the

nervousness that comes with that it was just everyone asking questions and trying

to prepare themselves mentally so it's probably the biggest part of that

transformation.

P09 illustrated a peak moment of NCLEX preparation while viewing a CSRP video about

medications:

Which feels like a mass of undifferentiated detail, and there's just a 1000

individual facts to know that you might be quizzed on, any given one of them, and

it was stated explicitly in a little video.

P06 gave specific examples of 'what worked':

> I would say I would spend most of my time taking sample questions and just
> do as many as 100 before a test maybe more because just like reading the book
> was not helpful at all, it was all about just trying to understand what they were
> going to question me about from the PowerPoint and that's it.

P08 stated:

> I guess when I started to get the majority of the questions right on the […] Apps I
> was using.

P015 shared a specific situation that helped learners optimize their learning:

> A weeklong NCLEX-RN review session that was held on campus by different
> teachers from different nursing disciplines including mental health, and medical-
> surgical, that really got us prepared for it.

Reflecting on the transcriptions, former graduates sought out a variety of interactive NCLEX preparation tools and combinations study techniques that catered to their diverse learning styles.

The final discovery question addressed learning style preferences and instructional strategies:

> Q5.What is your learning style preference and what teaching strategies help you
learn best?

P 01 stated:

I am a hands on learner, so we're able to apply what we learned in class, in the

book, and during lectures, in real life, on real patients, so really it helped out.

I am a visual learner and I learn best when I can read material a few times.

In contrast, P010 revealed:

I am probably more a visual style of learner, I used […] [laughter] and

[…] to put concepts together, I think concepts get lost in studying, lost in

translation, I think nursing students need to see the concepts in action for them

to understand it better, so for me I'm definitely a combination visual-auditory.

P04 referred to different learning styles this way:

I have to do the practice, I'm one of those students that can retain information

from the book and stuff like that but usually more hands, on so that's why I

enjoyed the clinical component of the coursework, even though you learned some

stuff in the classroom, then you put it into practice by going into the clinical site.

P02 benefitted from audio-visual teaching strategies:

I liked watching videos I liked seeing animations and also I enjoyed being able to

see the normal abnormal and end stages of diseases such as renal failure and

heart failure seeing the progression of diseases visually that way I could have a

picture in my mind when I take the test or when I see a question I could pinpoint

which part of the body they're talking about and what action is being taken by

the medication or by therapeutic interventions.

P08's learning style preference was explicit:

I learn best by reading the textbooks thoroughly, and then I watch the videos

then I do practice test questions.

P06 stated:

In general I'm an interactive type of learner I like to be given examples I like to

be asked directly about the content I like teachers participation with students

and speak out loud and bring up questions and examples and explanations of the

subject that's being taught I think also that group activities are very helpful for

me.

Reflecting on the transcriptions, former graduates' preference for learning new

information included differentiated instructional methods from multiple venues including

PowerPoint, printed educational materials from nursing faculty, social media websites,

online software applications (apps), and during clinical experiences. According to Lum,

Bradley, and Rasheed (2011) students could improve their way of learning only if they

understood how they preferred to learn, and that there were multiple ways of learning. A

variety of effective teaching-learning strategies were available theses for students. This

menu of teaching-learning strategies is strength of the nursing program.

Dream Phase

During the AI dream phase, emergent themes of what former students included

collaborative NCLEX-RN preparation strategies to potentially improve NCLEX-RN

performance and pass rates by answering the questions:

Q3. What strategies did former NECC graduates say that faculty used that helped them in preparation for NCLEX?

Subquestions:

Q6. Describe what your vision would be for the future NECC nursing program that would decenter the instructor and the delivery of pre-specified content and enable students to pass the NCLEX on the first administration.

Emergent themes of what former students valued included decentering the instructor and the delivery of pre-specified content so that students can relate what they already know to what they need to know. Reflecting on the transcriptions, former students' valued when faculty members encouraged practical application to educational topics through peer-assisted teaching, with activities that aligned the curriculum, the CSRP student package, and NCLEX-RN. Participants captured this theme by saying:

As P09 expressed:

> If you're looking to decenter the instructor, distribute some of the teaching tasks, and have the instructor do more of vetting and addenda, on the presentations that students are having, I thought it was very useful for the teachers sitting there for the seminar and sharing more anecdotes and information, but they didn't need to be up in front of the classroom all of the time.

P05 put it succinctly when revealing:

If I had to take the instructor out and focus and teach the class probably, I have a class that's coming up pretty soon, and what I've been hearing is that 2 students have to teach a topic out of a book, so for example a chapter, so I would prepare myself, let's say for example if it was med-surg, read up on the topic, do my research, and then present.

P01 stated:

I envision NCLEX practice questions included in all the exams beginning with the first semester just to get the students accustomed to the style of the NCLEX exam format, and to make sure you know that they're comfortable with it, so that way, when they do end up taking the NCLEX exam during the last semester they're not too anxious, and they're more at ease, and more confident.

The following dialogue from P01 plainly illustrated this theme**:**

One of our professors taught us 'how to answers' again, she had a review group every week, we would meet once a week for just questions NCLEX questions, and for each question we had wrong or any doubt we had she would show us how that question was asked, what to look for, and on how to answer that particular kind of question.

P012 added:

I think that if they moved to a computer testing system, I don't know if they may have already done that, I don't know, I graduated 2011, but I think that would be beneficial to the students if they moved to computer testing.

P015 vividly described this experience:

I'm very happy with what I did, which was to find where it was that I had a lack

of knowledge based on things I felt were lacking in the program, and seeking

them out anyway, such as the pharmacology, the pathophysiology, and items like

that.

Peer-assisted teaching has a positive impact in prelicensure nursing education because

those students who teach other students must know the material beyond surface learning

(Kuh, Kinzie, Bridges, & Hayek, 2006; McKenna & French, 2011; Thompson, Smith &

Annesley, 2014). All participants described how, in different ways, they learned best.

Using a variety of adult teaching-learning strategies helped students become more

independent and self-directed learners. The feedback from the participants suggested that

the simulator was introduced to some students and there could be greater use of the

simulator throughout the nursing program. Responses related to the skills laboratory and

relevance to practice was highlighted as a major advantage of the nursing program.

Q7.What three things did you keep about the nursing laboratory setting that engaged

students on multiple levels and facilitated NCLEX success, and why should the program

keep them?

Emergent themes of what former students valued included acknowledging about the

nursing laboratory setting that undergraduate nursing students possess various learning

styles, and simulation technology provided a rich learning experience for all types of

learners. Former students felt the most effective faculty members varied their teaching

methods, which helped them learn more effectively. For example, several participants

captured this theme:

P02 said:

> The NECC nursing skills laboratory engaged students on multiple levels and
>
> facilitated NCLEX success by relating activate student involvement through
>
> discussions and demonstrations, being able to walk through the steps with us,
>
> what you should do, how you should clean the patient, and prep the equipment,
>
> and then go back to the patient.

P06 summed it up as:

> I think that at the end of the day the lab should integrate everything you learn
>
> inside the classroom, the textbook then puts it to action, and you are responsible.

P09 described a characteristic feature of the simulator:

> SimMan manikins, look it really matters when you're learning to clean a trach
>
> that you've got something, that it's in the right position, that you've got this sense
>
> of reaching around a person, and what do I need to be aware of about their body,
>
> so that I don't whack them in the nose.

P01 added:

> I had […] for most of my time for the nursing labs and she was really good she
>
> was really patient with us took time to explain things to us I think what really
>
> helped was the simulations with us as a group with other students um and also the
>
> equipment that we had access to that simulated being in a real hospital setting to
>
> work with patients.

P015's recollection was detailed:

> I don't think any of it should be removed that's for sure the three things that were most successful I think one of the things that I remember [inaudible] maybe it was just me almost like contest games where [inaudible] we also had open labs so that [inaudible] instructor felt that you were not picking up on materials or certain skills that [inaudible] you were able to go in and [inaudible] one more time [inaudible] and number three they had mock set ups during my mock set up they [inaudible] a fake patient scenario where they would have the live dummy and the live dummy is able to present with different vital signs and subjective complaints and so on and so forth and the instructor was controlling that and we are to react and it is highly stressful it wasn't something you get graded on but obviously but I think it helps you think critically and to get used to the potential anxiety that you may be dealing with when you are involved in that kind of acute scenario I thought that was very helpful.

P08 candidly remarked:

> Also videotape lectures and let students re-view the lectures from home or work, after class – this would be IMMENSELY helpful, especially for students who procrastinate a lot like I did.

Reflecting on the transcriptions, maximizing students' critical thinking ability and problem solving skills through the use of instructional technologies is an important

instructional resource. Former students felt that important instructional resources included: varied lectures when presenting new material followed by guided laboratory practice, realistic scenario-based simulations, and access to interactive audio-visual software. This finding was supported by the research of Hayden, Smiley, Alexander, Kardong-Edgren, and Jeffries's (2014) whose longitudinal study clearly pointed out that "up to 50% simulation can be effectively substituted for clinical experiences in all prelicensure core nursing courses under comparable conditions" (p. S38). Adapting to and meeting differences in students' learning needs, with and without integration of technology tools, is an apparent strength of the nursing program.

Q8. Imagine you have fallen in a magic sleep as a student nurse and awaken five years later. The CSRP student package, is easy to use, and has relevant information about critical thinking skills and problem solving skills that has been optimized. What is the biggest change that has occurred?

As the AI progressed, the dream phase identified themes associated with CSRP that faculty could use to potentially improve NCLEX-RN performance and pass rates by answering the questions. Participants' insight varied about the CSRP tool and how best to use it. For example:

P05 stated:

> I think the biggest change possible would be more technology or questions that
>
> are geared questions, that are very similar to NCLEX examination by way of

computer, I think that the material is a great component of […], the reading material but the more, it would probably be more technology-based.

P03 invented a solution:

It would be nice that if […] could then say OK guys you just graduated, congratulations, what plan you want to set yourself on, you want to set yourself on 90-day plan, a 60-day plan, or a 45-day plan, for a test self- select, and then after you self-select then this thing will tell you are expected to go through these and these and these contents, and be able to pass these and these and these tests, you know if you do that then, you do that, they're already doing that, they do the test part but they don't do the content part as well, so I would focus a lot more on the content as well, but if we're talking about ideal world, I would infuse a lot more of the content of these books [looks at CSRP book) within the curriculum, and I think that there are opportunities to do, and I think my grade at NCLEX would have been better if that occurred you know from that because remember this content, the content is blended meaning they are trying to make you a good nurse you know.

P04 clarified how best to use CSRP based on past experience:

With […] I mean don't take me wrong, I still think it's a great program, it's a great package, you still reviewed, you know what you need to study once you take every test, and it guides you in how to acquire that knowledge, but I think that more critical thinking questions need to come out of the package, or come into the package.

P010's background situation served to clarify this perspective:

> With […], the biggest if they changed, it would be great knowing that the information is in fact valid, there were many times where their information was wrong in answering the questions, even in their books, there's varying information, and that's something that would be addressed to my professors, and it was basically shrugged off as yeah we know.

Reflecting on the transcriptions, stakeholders used a variety of teaching-learning strategies to address the changing needs of students that positively influenced their critical thinking ability, problem solving ability, and improved their clinical reasoning skills. A curriculum adjustment is essential for prelicensure nursing education based on documentation of best practices, new technologies, and the needs of students.

Learners make choices about where and how to focus feedback attention depending on method of engagement which supports a view of oneself as competent, agentic and accepted by others" (Winne & Nesbit, 2010, p. 660). A variety of monitored teaching-learning strategies were available for these students that matched their interests. Students reported successful outcomes using the required CSRP tools including positive performance feedback is another potential strength of the nursing program.

Design Phase

During the design phase of the 4-D cycle, emergent themes of what former students envisioned included a changed curriculum. NECC graduate nurses affirmed effective instructional strategies used by faculty that have positive implications for

problem solving learning, developing critical thinking skills, and passing NCLEX-RN

exam on their first attempt. Reed (2007) referred to the design phase as *provocative*

propositions because in this phase the appreciative inquiry moves abstract ideas to

practical ones by being grounded in what worked in the past. The former students

discussed why they feel case study scenarios strengthened their higher-level critical

thinking skills to answer application, analysis, and synthesis-level NCLEX-RN questions.

Furthermore, they recounted instructional situations and examples of teaching-learning

approaches that should be considered when designing and delivering a new Nursing

Education Program curriculum (see Table 2 below).

Table 2

Student-Suggested Design Elements for a New Nursing Education Program Curriculum

- Create smaller classes with student-teacher ratios 10:1

- Develop practice tests and quizzes at application level or higher levels

- Emphasize critical reflection and analysis involving patient situations

- Explain new philosophical approach to curriculum

- Form simulated mock case studies covering all body systems

- Implement test taking strategies to confront real-life practice NCLEX-RN

  situations

- Integrate fluid and electrolyte lecture content during semester I

- Integrate varied assessment tools to assess students' continual learning

- Introduce prerequisite clinically relevant nutrition content during semester I

- Offer NCLEX preparation course during semester I

- Provide nursing math curricula that is rigorous and challenging

- Schedule a one-day orientation to CSRP student tools during semester

During the AI design phase, former students were encouraged to explore what steps could

be taken to make the NECC nurse education curriculum the curriculum they envisioned

by answering the questions:

Q3.What instructional teaching methods/instructional practices did former NECC

graduates say their instructors implemented that promoted and enhanced critical thinking

skills and problem solving skills in nursing students?

Subquestions:

Q9. Now envision a nursing program where the entire class passed the NCLEX-RN on

the first administration. Tell that story, what did faculty and/or students do?

Q10. If you could design a new nursing course with content that focused developing

problem solving and critical thinking in order to be prepared for successful completion of

the NCLEX-RN? What did that look like?

P01 attributed this reflection:

> What the faculty did was they were patient with the students, and they made sure
>
> that the students had all the tools that the they needed to pass the NCLEX exam,
>
> and they made sure that they were ready to take the NCLEX exam, what the
>
> students did was they were diligent about studying for the NCLEX exam, and
>
> using all the tools the school gave them, but also based on their own learning
>
> styles, found things that would help them take the NCLEX exam, study guides, or
>
> study programs.

P07 evidenced this personal perspective:

> I'm that kind of person, like it's normal to just say OK you are studying for it
>
> now, you just need to pass it, and when I was studying for the NCLEX, and I
>
> started my […], my virtual […], I will honestly say it took me 2 weeks, I told her
>
> I registered, she told me she doesn't think I'm ready, I told her I'm ready and I'm
>
> going to take it, she said no don't, can you postpone it for a week, you have only
>
> done this for 2 weeks, I went and took it on a Friday, and Sunday I went and
>
> checked it, and I passed, I sent her a message and said I passed.

P09 equated student success this way:

> What would I envision in a class where everyone passed it on the first time, I'd
>
> imagine that there would be more individual instruction from the instructors, I
>
> imagine that there'd be more peer teaching, I did imagine that there'd be more
>
> contact with former students coming in, we had some of that, but most of them
>
> sort of dropped by to say how the NCLEX was, as opposed to, and you do get a
>
> lot of contradictory messages from that because it's an adaptive test which means
>
> the test is always about whatever you're having the most difficulty with, I think
>
> that there'd be more of the tests, would give assessment feedback, the […]
>
> computer lab tests that we took often were hitting on material that wasn't what
>
> we'd been covering recently.

P08 contributed this idea:

> Starting in year two, the teacher would give five NCLEX style questions at the
>
> end of each lecture that would cover the material discussed in lecture. These

questions would show the students how the lecture material is applied to the

practice of nursing. Only a few professors did this and it was in the last semester,

which was too late. And the questions need to be hard, like real NCLEX

questions.

Teachers should introduce new curriculum content by integrating it with the knowledge

from the classroom that students already have. The spectrum of teaching-learning

activities in pre-licensure nursing should be bi-directional. According to Mezirow and

Associates (2000), "educators seeking self-direction from their adult students are not

merely asking them to take on new skills, modifying their earning style, or increase their

self-confidence" (p. 67). Teachers should optimize students' learning to the greatest

extent possible with instructional materials, demonstrations, illustrative examples, and

immediate feedback to encourage mental scaffolding from prior learning with new

material (Yilmaz, 2011). For example,

P014 remarked:

I think that they really need to push […] and NCLEX studying from the first day

in the program till the last, it's not, I mean they remind us every once in awhile,

well you have NCLEX, well you have NCLEX, but they don't push us hard

enough, I don't think because we have the quizzes in class, and the test, and

exams, but I think if we were to really focus on the test-taking strategies for the

NCLEX, it would of made it easier, rather than waiting till last semester, and

having it fully hitting us like a train, like OK it's crunch time now, it's not just

passing school, it's also passing NCLEX.

Another spectrum of teaching-learning activities was expressed by P02:

> I think there should be a lot more information introduced to us, I know first
> semester we should be eased into the program, but we need to hit the ground
> running starting from day one, I know one professor, she talked to us about if you
> get 75 questions she wrote a line, and when the line would go up if you're doing
> well, it would go down if you're not doing well to seventy-five and then it kind
> of zigzagged over the line of passing if you had two 65's, and she gave us that
> illustration which was good, but if we had NCLEX-style questions that were
> more challenging, with more foundational information with lab, definitely fluid
> and electrolytes, I think that should be stressed first semester because fluid and
> electrolytes after being graduated is so important to know as well as acid base,
> because everything relates to balance you know, homeostasis of the body, so if we
> could grab that concept from the beginning and really master it, as well as the
> classification of meds which I felt like I had to relearn again, if those concepts
> were really ingrained in our minds from the first semester, then the second, third,
> and fourth, would just fall into place because we would have a strong foundation
> to hold ourselves up on.

P06 shared this view:

> My ideal course consisted of having discussion time, of test questions, and it
> would be just that, test questions, I know that students that failed throughout the
> program, they take a remedial course that looks at the question and they make
> them do a lot of questions and [laughter] I found out that the people that go back

into the classroom after they take that remedial course are so much better test

takers, but if we had had that type of class before we even finish maybe they

wouldn't have to postpone their graduation.

P012 reflected:

I've thought about this, and I think there's a remediation course, I understand

that people take if they fail out of the school, I always questioned why [laugher]

that was it a mandated class, I don't know, but I've never participated in it, but

I'm pretty sure they teach you test-taking strategies, so I always wondered why

that was something you had to do, regardless of it should be somewhat of a

prerequisite to get into the nursing program, I think because I believe they teach

you test-taking strategies, my friend had to take it and I only know from what she

told me, but it sounds like it would have been more useful at the beginning of the

program, not after you've failed.

Reflecting on the transcriptions, most former students' believed they passed the NCLEX-

RN on the first attempt for several reasons: they were prepared for the NLEX-RN using

the required CSRP student package, they became proficient at answering application and

analysis level NCLEX-style questions from repeated practice, and, they applied NCLEX-

RN test-taking strategies to correctly solve practice problems. There is no single

evidence-based resource that specifically aided former students' during prelicensure to

successfully pass the NCLEX-RN. Nursing faculty members and all stakeholders should

understand that assessment is crucial to determine and drive student learning (Hunt &

Hutchings, 2014). A systematic review and meta-analysis (Lahti, Hätönen, & Välimäki,

2014) emphasized neither e-learning methods or more traditional learning methods were considered superior to increase students' knowledge, skills, or satisfaction with the learning methods. Specifically, these students learned and practiced structured critical thinking strategies and problem solving strategies, during examinations, and through active involvement in the learning process, which is a potential strength of the nursing program curriculum.

Deliver Phase

During the final delivery of the 4-D stage of the AI cycle, emergent themes of what former students envisioned that could potentially deliver, administer, and manage a changed curriculum by answering the questions:

Questions included:

Q3.What instructional teaching methods/instructional practices did former NECC graduates say their instructors implemented that promoted and enhanced critical thinking skills and problem solving skills in nursing students?

Sub questions:

Q11. How did you accomplish delivering this changed course?

Q12. How did you accomplish administering/managing this changed course?

P08 suggested the following curricular or course changes that could potentially be considered:

It should be in person so students can ask the teacher questions. If they make it online, students might blow it off and they can't afford that because the NCLEX is too important. [pause] the students would have to register for it and pass it with a good grade to get their degree. All weekly lectures/sessions should be recorded so students can re-listen to the lecture online afterwards if needed. The sample NCLEX test questions used in class should be downloadable onto computers and […] so students can practice outside of class. The questions should come with lengthy "wrong answer" explanations at the end because I think that's where most learning takes place—when you read why the other answers were wrong.

P01 internalized things this way:

After I have a set curriculum, and course all set up, I would bring the proposal to the dean of the nursing department, and tell the dean why this program would be successful, and how it would benefit students on passing the NCLEX exam. [pause] The first thing we need to do is get all of the faculty on board with the changed course and get their support, and also inform the students about the changed course too, and let them know why this course would work, and how it would benefit them in passing the NCLEX exam.

P015 cited relatively easy access to case studies:

It would involve a lot of predetermined case studies, and you would work independent, and in groups I think would be helpful, I think that study groups can with the right persons, some people are better on their own than others but working with individuals and talking about the case study, and why it is you're

thinking what it is you're thinking you learn ideas from other people and vice

versa, and you can bounce other ideas off each other so working on case studies

that way, and, then taking practice exams together too, doing it involved so that

you're using your own brain and also collaborating with those around you, and

hopefully learning from what they've learned things that you may not have picked

up on in the program might be helpful [pause] not necessarily online, in person,

but utilizing online resources, testing sources that could be through the […] or

whoever else had produced a vast quantity of content that the school probably

would be able to put that together on their own, but there are many 3rd party

sources so whichever ones they found most effective either […], […] [inaudible]

or whoever.

P05 spoke of enlisting cooperation through professional support from other colleagues:

Probably accomplish it by getting other people involved, what I mean by other

people involved I mean other instructors, getting their input because instructors

maybe able to give, and this is different from the student, their input or their

expertise, and they would be apply to apply their knowledge base to the course

and what would be the best scenario, or because of the knowledge base they have

being able to answer NCLEX situations, and then I guess another way to deliver

the course maybe using the peer instructors to get the students involved because

it reinforces their learning. [pause] I guess by managing, would be the results,

actually the students taking NCLEX, and the results, what are the results once a

person takes the NCLEX, are they passing on the first try, or are they passing on

the second try, so I think managing would be on focusing on the end results, and

administering it probably would be in a similar type setting as NCLEX, maybe in

the environment if you can create the atmosphere of trying to take the NCLEX, or

what the situation may be so if you would develop a room that is set up similar to

the testing center, so people could maybe go in, they're familiar, or they are

comfortable being in that type of environment, so what would help having

technology laptops or computer monitors, head sets, cubbies that are

individualized so you have your individual space, setting the light setting, so you

want to create try to create the environment, I think that would be a big help.

P06 gave this supportive view:

I would make sure that the student ratio is small to accomplish the type of

information I want to administer in the course, I want to be in a small classroom

because it takes a lot of time to develop conversations, not everybody is able to

speak up, you want to make sure that everybody participates, and the only way to

do that is by having small classrooms, and then you also want the teacher to have

the time to address different issues that may come up in the class, like difference

in politics, difference in religion, and different ways of how to address different

types of questions, and you want to make sure that there's a safe space for

everybody to feel safe to be able to communicate, and share thoughts aimed at

case scenarios.

P012 discussed a curriculum change from this perspective:

I would have to look at that to see what they do, but it would be obviously

beneficial for somebody who knows how to break down questions, not just the

nursing staff, not all nursing professors know how to do Kaplan-style, so it would

be beneficial for somebody who knows how to break down those questions, I

know it would be even more beneficial to have somebody who knows how

to break nursing questions, to answer questions, maybe lead the class, it would be

beneficial, the lab of some sort, where people could go and use the computers and

practice the actual process, I guess because it is a process, and I don't know how

that's done, I don't know if the remediation costs students money or not, but if it

could really be looked at as something that could be done prior to the program

not during.

P03's perspective included this diversity of opinion:

So administration would be, a one you know, like a […] would be perfect for

that kind of role you know, or any of the other professors, they do a fantastic job

over there, some small class size no more than 20 people, and they would be 1-

hour and a half to 2-hour course, and could you do this online? I don't think you

could pull it off online, I think it would be kind of difficult to do it online

because there would be a lot of live discussion going on, if you're working

on the case, there's a lot, so that I think this one would need to be live run

classroom kind of style, which kind of goes against the whole movement is more

online stuff.

It is critical to prepare nursing students for patients' complexity in the 21st century. The

NCLEX-RN exam measures minimal competence required care for entry-level practice. The ability of new graduates to think critically and intervene is essential. Periodically, prelicensure nursing programs should plan time to routinely reexamine the undergraduate curriculum to assess further need to make programmatic changes or implement innovative instructional methods as newer technology becomes available. Student nurses effectively must demonstrate the ability to think critically and problem-solve in order to provide safe patient care. As novice nurses, they will be expected by their employers to balance hands-on care first while using technology to support patient care.

A seminar designed to address NCLEX-RN preparation skills as a strategy, will help prepare and support students throughout the nursing program. As Knowles et al. (2011) points out, "even a brief experiential encounter with the concepts and skills of self-directed learning helps adults to feel more secure entering into an adult education program" p. 116). Based upon the findings of this research, a high degree of self-directed learning skills in advance is required of students throughout the NECC nursing program. Based upon the analysis of what instructional methods former graduates valued, having the freedom to choose from different learning strategies was crucial.

Providing students with a preparatory how-to prepare for-NCLEX seminar will foster CT and problem solving skills earlier, increase personal autonomy, and build a more self-directed learning environment. Furthermore, Knowles et al. (2011) echoed that problems arise when self-directed learners want to have more independence in their learning but are denied that opportunity. There are many factors that former graduates weighed in choosing when they did not know how to learn particular material. For

example, several reported that as inexperienced students they often felt intimidated and

relied on the nursing faculty to structure every learning situation.

It is evident from higher education literature that "adult educators need to shift to

learners as much control as possible in the learning process" (Merriam, 2007, p. 109).

Nursing faculty members would continue building on this mutual goal of learning by help

students come to understand what will be required of them with more clarity. This goal

is something that needs to be attended to during every semester while students are

enrolled in the program. Effectively preparing for the NCLEX, achieving satisfactory

academic and clinical performance exams, and passing the NCLEX-RN the first time are

pre-licensure goals that need to be simultaneously attended to. A how-to prepare for-

NCLEX seminar would benefit students' learning by enlisting more planned instructional

methods for faculty members that draws on the program's positive core. Specifically, an

interactive learning seminar for students to develop basic skills in CT along with CSRP

tools and efficacious instructional strategies that translates to a how-to-prepare for the

NCLEX in the first semester of the nursing program.

Research has shown CSRPs have use in identifying the need for curricular

revision to assure that concepts key to the NCLEX-RN test plan are incorporated into the

curriculum (Alameida et al., 2011; March & Ambrose, 2010). New curriculum

development begins with acknowledgement that the existing curriculum is no longer

working as effectively as desired (Iwasiw, Goldenberg, & Andrusyszyn, 2009). CSRPs

support students' success during their nursing program because various components and

online tutorials may enable students to focus on their strengths and to assist faculty with

psychometrics. The creation of an NCLEX-RN preparation seminar was designed to assist the NECC nursing department and its stakeholders with an efficacious means of providing first semester students with NCLEX-RN preparation knowledge and skills which then can be transferred to the classroom to improve student outcomes and future NCLEX pass rates. Designing an NCLEX-RN preparation seminar will provide the nursing faculty with essential problem solving instructional strategies in order to strengthen the NECC positive core by ensuring transfer of CT skills and NCLEX preparation learning actually occurs.

Section 3: The Project

Introduction

This section provides a description of the project, including the project goals, rationale for the project genre, and how the project addresses the research problem. The review of literature includes how the genre is appropriate to the problem, the criteria used to guide development of the project, and how theory and research support the content of the project. Implementation, evaluation, and implications, as well as social change, are also discussed.

Description and Goals

As noted in Section 1, in this study, I investigated effective critical thinking and problem-solving instructional strategies, using positive inquiry in order to understand and address the fluctuations in the passing rates on the NCLEX examination. This research and resulting project were undertaken to discover and capitalize on effective instructional strategies using AI strategies that positively contribute to student outcomes and first-time NCLEX-RN results. As a result of this case study research, it was discovered that there are areas where the existing curriculum is no longer working as effectively as desired. Further, the majority of nursing literature reports a plethora of instructional strategies that have been initiated in the effort to assist students in successfully passing the NCLEX-RN on the first attempt. Former NECC nursing graduates confirmed that designing a new mandatory NCLEX-RN preparation seminar where the focus is orientation to the CSRP tools and application of critical thinking exercises could have a positive cumulative effect on the NCLEX passing rates at NECC.

The purpose of this project was to discover effective instructional practices that promote student nurses' critical thinking and problem solving skills in order to pass the NCLEX-RN on the first administration. The goal of this project was to address NECC's positive core (Cooperrider & Whitney, 2005). The AI discovery process provided former NECC graduates with the opportunity to share stories about what "worked" for them that they had done on their own to achieve a passing score on NCLEX on the first try. This sharing revealed the various instructional strategies used by faculty members or by the students themselves that enhanced their ability to pass the NCLEX-RN on the first administration. During the AI dream phase, former students described collaborative NCLEX-RN preparation strategies to improve NCLEX-RN performance and pass rates. After discovering and dreaming about effective instructional practices, design elements were discussed in relation to how new curricular changes could be implemented into the program. The goal was to capitalize on instructional practices of faculty members that promote and enhance the problem solving and CT skills of student nurses in order to increase the NECC NCLEX pass rate. The appreciative inquiry ended with a NCLEX-RN preparation seminar that the NECC nursing department may choose to implement. The participants' plan identified possible curricular design elements that could be used in order to deliver a changed curriculum to the NECC nursing program.

This project was an affirmative inquiry of curricular changes that have the potential to contribute to improving students' critical thinking skills and to improve the NECC program's first-time NCLEX-RN pass rates. This study revealed that there are many effective CT strategies, techniques, and experiences in place in the NECC nursing

program. Participants provided a significant amount of rich data that allowed me to create a useful 3-day on-campus NCLEX-RN preparation seminar for Semester I student nurses that uses a variety of formats, including orientation to required CSRP student resources, NCLEX-RN questions, small group case study analysis, hands-on activities, and active learning using high-fidelity simulation.

The 3-day seminar provides first-semester students with a foundation in the sequencing and introduction of the required CSRP student package to prepare them in using problem-solving skills and CT skills while enrolled in the nursing program. Included in the seminar is a mini case study that is aligned with NCLEX-style questions, as well as an introductory online CSRP quiz to familiarize students with computerized testing methods and assess students' continual learning. By the end of the seminar, students will be able to articulate the purpose and value of using a variety of effective learning strategies, study, and test-taking skills; (b) identify components of the CSRP tutorial product; and (c) demonstrate elements of effective problem-solving skills and critical thinking skills using a simulated case study method.

Rationale

I chose this particular project to address the research problem because NECC candidates are scoring below the current 83% national standard on their first attempt of the NCLEX (NCSBN, 2013a). Currently, compared to graduates from similar programs in the surrounding locale, 64% of NECC graduates passed, whereas nationwide, 82% of all graduates passed the NCLEX from April to September 2013 (NCSBN, 2013b). These two statistics were the motivating factor for choosing this particular project, in which I

sought to determine what motivates students to critically think and problem solve and to discover effective teaching-learning strategies aimed at improving student learning that could improve NECC NCLEX-RN first-time passing rates.

The rationale for scheduling the 3-day seminar at the beginning of the first semester was that this timing would help the NECC nursing department and faculty members focus on critical NCLEX preparation skills that students must hone throughout each level during introductory courses. Former graduates indicated that different subject matter in nursing education dictated different learning strategies due to individual learner differences occurring at the beginning of the program versus at each level and/or at the end. Oermann and Gaberson (2009) emphasized that faculty members must support and prepare their students for the NCLEX-RN examination throughout the nursing program by considering a variety of academic and nonacademic factors that might influence performance on the NCLEX. Using an organized approach by placing the 3-day seminar during NUR 101/NUR111 enables faculty members to explicitly integrate study strategies and test-taking strategies immediately because students must be prepared to answer NCLEX-RN-style questions during the first semester.

Integrating the data of this project study into a 3-day NCLEX-RN preparation seminar confirmed that not all adults learned complex nursing material in a self-directed manner. Knowles et al. (2011) found that "introducing unfamiliar content to a learner will require a different teaching-learning strategy" (p. 151). Incorporating a seminar during students' first semester was most appropriate for the purpose of meeting student learning goals. Building a strong knowledge base in nursing education should not wait

until after the start of the first semester because specific nursing content increases very rapidly in every course. Furthermore, while some students may not understand introductory content, others may not understand why they need to know it, and still others may not know how to apply the material as the semester progresses. Front loading NCLEX-RN strategies in an organized seminar during the first semester enables faculty members to effectively frame critical thinking and problem solving strategies for students by showing them how they can be applied throughout the nursing program and on the national licensure examination.

Approaching NCLEX-RN preparation strategies at the beginning of the program versus at each level and/or at the end helps students succeed academically on a continuum toward to graduation and beyond. This project integrated an appreciative lens to uncover a gap that was discovered in the NECC NUR 101/NUR 111 curricula. A review of the existing curriculum revealed that making a change in one component in the existing curriculum would potentially transform student learning and potentially improve future NCLEX-RN first-time pass rates. Additionally, integrated findings from these focus groups revealed that students lacked formal introduction/orientation in order to effectively use CSRP materials that they were required to purchase while enrolled in the NECC nursing program. Archival documents reviewed for the first semester NUR 101/NUR 111 curriculum did not prescribe how to use the required CSRP materials or explain how the nursing curriculum was linked to the NCLEX-RN test plan. One low-cost, effective way to implement curricular change is to include first semester curriculum by designing an inclusive 3-day NCLEX-RN preparation strategy seminar.

This project integrates with the analysis that was completed in Section 2. The findings in Section 2 revealed that there are many effective CT strategies, techniques, and learning experiences in place in the current NECC nursing program. This project reinforced that although the NECC nursing program curriculum has strengths in the faculty's use of instructional factors that enabled former NECC nursing graduates to pass the NCLEX-RN on the first administration, there are ongoing concerns. Feedback from stakeholders affirmed that they passed the NCLEX-RN on the premise that the NECC nursing faculty used positive instructional strategies that promoted their CT development. The NECC nursing faculty can build upon their own instructional strategies with a combination of CSRP student tools and CT strategies and techniques, allowing for structured and engaged student learning opportunities to occur.

Project Genre

The project genre presented the construction of a 3-day NCLEX-RN Preparation Seminar based upon strategies and suggestions that surfaced from NECC former graduates during the AI processes of this project study. The problem of chronic fluctuations in first-time NCLEX-RN pass rates was addressed through AI strategies of inquiry. Concentrating on a new curricular design and capitalizing on a 3-day NCLEX-RN Preparation Seminar whose purpose is to address specific teaching-learning strategies will help students improve upon their academic performance and effectively prepare for the NCLEX-RN exam. The new curricular design is a collaborative effort to address chronic fluctuations in first-time NCLEX-RN pass rates in the NECC nursing program. I see this project as a solution to the chronic fluctuations in NECC first-time NCLEX-RN

pass rates by fostering opportunities for nursing faculty members to support students with appropriate resources and strategies that former NECC graduates say their instructors implemented that promoted and enhanced CT skills and problem solving skills in nursing students and positively contributed to first-time NCLEX-RN success.

Other formats were considered for the project but were found to be less effective. For example, faculty orientation to CSRP, although CSRP does provide online faculty tutorials and onsite consultants, would not be appropriate because it would not allow for CSRP content experts to provide 1:1 student orientation to the CSRP resources or explain what to do with the CSRP package in further detail. In addition, the objective focus of the seminar is to benefit students' academic performance and effectively prepare them for the NCLEX-RN exam. Moreover, Caffarella (2010) suggested that adult educators (a) choose resources that effectively take advantage of the context in which the learning takes place and (b) choose materials that explain and illustrate well what is being taught. Nursing faculty members can benefit greatly by examining and reflecting on their instructional role before, during, and after the seminar is over to ensure that there is an obvious link between the imposed instructional activities provided in their course curriculum and the intended results.

Figure 1. Project Implementation Timeline Day 1

Course Name: NUR 101/111: An NCLEX-RN Primer				
Course Objectives: At the end of the seminar, students will be able to:				
Articulate the purpose and value of using a variety of useful learning strategies, as well as study and test-taking skills				
Identify components of the CSRP tutorial product				
Demonstrate elements of effective problem solving skills and critical thinking skills using an unfolding mini-case scenario method with high-fidelity simulation.				
Day 1				
Objective	Curriculum Content	Time	Methodology	Resources
Welcome	Opening remarks	15 mins	Statement/discussion	Nursing Faculty Classroom
Introduction	Introduction of faculty and facilitators	15 mins	Discussion	Nursing Faculty CSRP Education Consultant Computer Classroom Technician
Housekeeping	Establish ground rules and use of computer lab/classroom	15 mins	Statement/Questions/ Answers	Nursing Faculty Computer Classroom Tech Computers/Internet/ Projector Whiteboards Computers Classroom
Student Expectations	CSRP and Student Registration Student Package/ Toolkit	60 mins	Statement/Questions/ Answers Innovative/interactive PowerPoint with video implementation	CSRP Education Consultant Computer Classroom Tech Nursing Faculty Computers/Internet/ Projector Whiteboards Computer Computers/Internet
Seminar Objectives	Cover the seminar objectives	10 mins	PowerPoint/Discussion Whiteboards	Nursing Faculty Computer/Projector/ Internet PowerPoint/Whiteboard
Break		15 mins		
Seminar and schedule overview	Briefly review 3-day seminar agenda	10 mins	Statement/discussion Interactive group exercise	Nursing Faculty Computer Classroom

Figure 2. Project Implementation Timeline Day 2

Day 2	Welcome students Review Day 2 agenda	15 mins	Statement/discussion	Nursing Faculty Classroom
NCLEX-RN Preparation Strategies	Review CSRP log on tutorials How-to identify person learning style Tour Tutoring Center Meet Nursing Dept. Tutors	45 mins	Interactive Practice Questions/Answers NCLEX-RN review books Virtual CSRP program Innovative/interactive with video implementation	Computer Classroom tech Nursing Faculty Tutor Instructors Computer/Projector Internet Whiteboards NCLEX-RN review books
NCLEX-RN Examination	Cover NCLEX-RN test plan	30 mins	PowerPoint/Discussion Whiteboards Virtual CSRP program	Nursing Faculty Computer/Projector Internet WhiteboardsComputer Classroom
Problem-solving & Critical Thinking Strategies	Problem-solving & Critical Thinking Exercises	30 mins	Virtual CSRP program Innovative/interactive with video implementation	Nursing Faculty Computer/Projector Internet Whiteboards Classroom Nursing Text Computer Classroom
Break		15 mins		
Test-Taking Strategies	Test-Taking exercises Student creation of note cards on medications	30 mins	Interactive	Nursing Faculty Computer/Projector Internet Whiteboards Classroom Nursing Text Computer Classroom
NCLEX-RN style questions	Cover NCLEX-RN style questions/rationales	30 mins	Interactive CSRP program	Nursing Faculty Computer/Projector Internet/Classroom Whiteboards Nursing Text
Lunch		30 mins		
Unfolding mini case scenario with simulator (2) sessions	View: [CSRP Module Series: Safety] Break class into 4 groups. Each group will take a turn in presenting different practice challenges you might encounter as well as a list of solutions	90 mins	Small Group Discussion Peer-teaching Interactive group exercise/group discussion of unfolding case	Nursing Faculty Computer/Projector Internet Whiteboards Classroom Nursing Text* Computer Classroom *Taylor C, et al. (2011) *Fundamentals of Nursing: The Art and Science of Nursing Care* (6th Ed), Lippincott, Williams and Wilkins.
Day 2 Wrap Up	Summarize the learning of Day 2	15 mins	Group discussion	Nursing Faculty

Figure 3. Project Implementation Timeline Day 3

Day 3	Welcome students Review Day 3 agenda	15 mins	Statement/discussion	Nursing Faculty Computer Lab Tech Classroom
Unfolding mini-case scenario with simulator (2) sessions	Unfolding mini-case scenario continued: Break class into 4 groups. Each group will take a turn in a different practice challenge they might encounter as well as solutions. Another group will take turn observing the mock scenario with checklist.	2 hours	Small Group Discussion Peer-teaching Interactive group exercise/ group discussion of unfolding case	Nursing Simulation Faculty Nursing Faculty Laboratory Simulation Room Computer/Projector Internet Whiteboards Classroom
Break		15 mins		

High-fidelity simulation with Mini-Case Scenario (2) sessions	Mini Unfolding case scenario Break class into 4 groups. Each group will take a turn in a different practice challenge members might encounter as well as solutions. Another group will take turns observing the mock scenario with checklist.	2 hours	Small Group Discussion Peer-teaching Interactive group exercise/ group discussion of unfolding case	Nursing Simulation Faculty Nursing Faculty Laboratory Simulation Room Computer/Projector Internet Whiteboards Classroom
Lunch		30 mins		
Computerized critical thinking simulation	Computerized critical thinking simulation	30 mins	CSRP Topic: Safety Control	CSRP Consultant Nursing Faculty Computer Lab
Day 3 Wrap up & evaluations	Summarize the learning of Day 3 Ask learners to complete confidential online survey evaluation and explain that a follow up Qualtrics Survey will be emailed to them the following semester	15 mins	Group discussion/Reflection	Nursing Simulation Faculty Nursing Faculty

Review of the Literature

I conducted two literature reviews for this project study. The first literature review consisted of research that was supported by a combination of theories from Knowles' work on adult learners, appreciative inquiry, and constructivist theory as the theoretical foundation framework. The first literature review also discussed critical thinking (CT) and the relationship to graduates' passing the NCLEX-RN on their first attempt. I conducted a literature review using the Walden University's library, books, and Internet, books, and journals.

In the second literature review I examined, analyzed, and saturated research literature that was appropriate to the genre, supported the problem, and also served as a guide during the development and implementation phases of this project. Based on the analysis, and critical interconnected analysis of theory and research, the structure of this research study, and composition of the final product was appropriate for the problem. I reviewed current, primary, and peer-reviewed research with the last 5 years using multiple data bases: ProQuest Central, Academic Search Complete/Premier Cumulative Index to Nursing and Allied Health Literature (CINAHL), and Education Resources Information Center (Eric). The key terms for this literature review included: *adult learners, adult learning strategies, effective teaching-learning strategies, first-time NCLEX-RN success, undergraduate nursing student, teaching-learning strategies, nursing education instructional practices, critical thinking skills, teaching critical thinking strategies, problem-solving skills, commercial standardized review testing, appreciative inquiry (AI), peer-assisted learning, self-directed learning, case studies, simulation-based learning, computer-assisted instruction, differentiated learning*

instruction, curriculum development, undergraduate nursing curriculum, curriculum design.

The second literature review contains a minimum of 25 current, peer-reviewed sources that I used to expand my knowledge about the problem and to guide development of the project. The findings discussed in Section 2, as well as the current literature are used to support, defend, and define the choices made in the project construction details. According to the literature found, most nursing faculty need assistance in preparation for teaching CT skills but would also benefit in understanding strategies to acquire the competencies previously identified (Hmelo-Silver, 2004; Kowalaczyk, Hackworth, & Case-Smith, 2012). A primary task of nursing education is to structure the nursing curriculum to actively engage learners and build CT and problem solving (PS) skills (Lechasseur, Lazure & Guilbert, 2011). It could be argued that lecture-based learning encourages passive learning. Lectures help novice nursing students become familiar with new information however, lectures do not encourage opportunities to discover and develop CT skills, problem-solve, or become self-directed, and think about plausible answers. In contrast, the skills laboratory and faculty at NECC assisted in the development of critical thinking and problem solving skills by engaging students in a supportive environment so they could relate concepts and transfer acquired knowledge to real-world nursing. The following paragraphs are a description of the role of nursing faculty to promote students' CT skills; CSRP faculty resources; and problem-based teaching- learning strategies.

The Role of Nursing Faculty in Promoting Students' CT Skills

NECC administrators set a goal for NCLEX-RN passing rates to be at or above

the national average. The three-year mean NCLEX-RN pass rates have come close,

however the goal has not been met for several semesters. The most commonly reported

route for initial nursing education of RNs in the United States is the Associate Degree

Nursing (ADN) program (HRSA, 2010). Student graduates expect the NECC nursing

program to provide them with the knowledge, skills, and competencies necessary for

entry into nursing practice that will enable them to pass the NCLEX-RN on their first

attempt. Preparing students for the NCLEX-RN requires a strong commitment from the

NECC administrators and nursing department. The NECC nursing faculty should review

the entire curriculum to ensure their approach to NCLEX-RN is a strategic one,

beginning in the first semester to the last, provides students with opportunities along the

way for positive performance feedback, and meets with the state board of nursing and

ACEN program accreditation requirements.

Delivering the required CSRP program to faculty and students will help prepare

them to pass the NCLEX-RN the first time and be prepared for entry-level practice.

There is an abundance of data for supporting students and making programmatic

improvements (Jacobs & Koehn, 2006). Resources must be provided to educate faculty

members to work on curriculum changes related to individual courses including student

and CSRP instructor tools. Healthcare technologies are rapidly changing and nursing

knowledge is dramatically expanding. Similarly, trends in curriculum development

continue to be an evolutionary process. In fact, Scheetz (2000) recommended that

associate-degree education include unstructured classes where "a student or students are

given a case scenario and have to sort through information, research all the questions that arise, research the case, and develop a plan" (p. 145). Nursing faculty should continually evaluate their curriculum to demonstrate their instructional approach to teach CT skills are congruent with state education and accreditation agencies. Additionally, if passing the NCLEX-RN on the first attempt is truly a NECC program goal, then focusing on a new curricular design could more consistently meet or exceed its internal benchmark related to NCLEX-RN success. Furthermore, they will need time to make curricular changes and rethink their pedagogies to ensure they provide repeated opportunities to practice NCLEX-RN strategies repeatedly and intensively.

There have been sustained studies about undergraduate nursing curriculum perspectives in higher education, however no strong conclusions were made regarding the effectiveness of curricula and specific learning outcomes such as CT skills (Jayasekara, Schultz, & McCutcheon, 2006; Landry, et al., 2011). Providing dedicated time and resources for faculty to develop new curricula are essential elements to NCLEX-RN first time success. This purposeful, educational practice is supported by former NECC graduates recommendations that curriculum include more CSRP online tutorials, and smaller classes so faculty can evaluate clinical assignments and provide individual feedback. Former graduates believed teaching-learning strategies which incorporate case studies helped to develop their CT skills and allowed an introduction of essential entry level critical thinking content that was reinforced throughout each semester and during clinical training. They also believed students should be more active participants in their own learning because as future nurses they would also be active partners during the planning and implementation phases of nursing care during clinical. Furthermore, a

participative approach where students can become more equal partners in bringing about change as evidenced by class participation and conceptual clarity in student's written work can benefit student learning (Wood & Butt, 2014).

In another approach, focusing on the development of a changed curriculum should be goal-driven, emphasizing student responsibility for independent and peer learning by shifting teachers roles to become more like facilitators of student learning. For example, Ronning (2009) explained that "heavy curricula and pressure of examinations seem to force students in the direction of survival strategies" (p. 449). This type of surface learning does little to enable students to understand and engage in the study material. NECC administrators expect "at least 80 % of graduates will pass the NCLEX-RN exam on the first attempt " (Nurse Education Department, Student Handbook 2013, p. 7). Focusing on passing the NCLEX-RN on the first attempt as a primary program goal means looking at pedagogical evaluation of the curriculum within the 2-year nursing program.

CSRP Faculty Resources

CT skills, problem solving ability, and first-time NCLEX-RN pass rates should be a departmental priority (Brown & Marshall, 2008). During the Semester I, beginning students should participate in an on-campus CSRP student orientation in the computer laboratory to use the mandatory CSRP student bundle. In addition, technological support is provided to individual students on campus or through virtual CSRP support. This on-campus student orientation offers a quick, inexpensive teaching-learning strategy featuring structured and unstructured activities planned by the instructor and the CSRP consultant introducing student resources including practice assessments, CT assessments,

identifying learning styles, multisensory online tutorials, and proctored, standardized assessments. All nursing faculty should consider using the CSRP educator implementation guide strategically because they can custom manage outcomes which contributes to students' CT and problem solving abilities by incorporating and working those skills into more their courses. These structured and unstructured tools can also help the nursing department facilitate content-specific assessments for integrated curriculum. Furthermore, Jacobs and Koehn (2006) reported faculty members learned to use the extensive information on students' tests scores from CSRP, which further assisted them in passing the NCLEX-RN. Familiarizing faculty with computerized testing, and an increased emphasis on exam questions that tested application, priority setting, and critical thinking will help remove barriers to implementation of the CSRP educator tools.

One curriculum component could include incorporating problem-based teaching learning throughout the curriculum in the form of mini case studies. Furthermore, making mini case studies part of the routine syllabus will provide opportunities that can afford students' learning that are real-time, real-world opportunities possible. Integration of effective CT strategies, techniques, and structured and unstructured experiences help students better understand the relevance and study related to NCLEX-RN preparation and ultimate success. Additionally, some students may experience curriculum overload if the course design did take into consideration the number of course objectives or course goals students must achieve throughout each semester. If these outcomes are not regularly updated and methods of teaching recognized as part of the educational process, redundancies can occur because the curriculum is generally implemented for both faculty and students to support positive learning outcomes.

Throughout prelicensure nursing programs, nursing faculty members must be flexible to revise curricula that provide students with the knowledge, skills, and competencies necessary for entry into nursing practice. NCLEX-RN exams are designed to evaluate entry-level competency and therefore new RNs must be prepared and equipped to work in emerging health care environments that continually evolve. Research has shown that lower cost, general measures of ability, such as critical thinking assessments, may be helpful (Fero, 2010). Faculty-dominated classrooms are also not always conducive to the development of CT because these environments do little to foster opportunities that help students master skill sets or program competencies by correctly answering application and analysis level questions.

When considering new curricular changes, faculty members should not consider assessment or feedback processes as an afterthought of the course design (Price, Carroll, O'Donovan, & Rust, 2011; Gould, & Day, 2013). Furthermore, timely feedback methods between students and their instructors should serve as a guide in the overall learning process. For example, Bayerlein (2014) reported that students accept well-developed manual, or automatic feedback tools. Moreover, whether students are on or off campus they expect positive performance feedback from faculty to help them identify potential gaps or determinants about potential areas of improvement, and to achieve intended curriculum outcomes. These forms of assessment can be met by sufficiently designing and implementing student learning activities that include structured CT and PS strategies during examinations, engaging differentiated instructional methods, and during scenario-based simulations.

Lastly, instructional methods should be bi-directional meaning that faculty should teach students how to critically think and problem solve in addition to instructional content so that learners have the ability to effectively problem solve and make decisions when appropriate. This process is a particular experience akin to what Mezirow and Associates (2000) described as "educators seeking self-direction from their adult students are not merely asking them to take on new skills, modifying their earning style, or increase their self-confidence" (p. 67). A meta-analysis of instructional strategies has shown that improved CT skills and dispositions are associated with how CT instruction is provided (Abrami et al., 2008). NECC nursing faculty should consider designing their curricula and develop teaching strategies to address development of CT skills separately. This could be accomplished by utilizing the existing CSRP student and faculty resources because these provide collaborative and customized reports for NECC students and faculty. CSRP service is on request, and based upon the goals of the NECC nursing program, CSRP can integrate principles of CT skills into course content that works best for faculty and immerse students in CT subject matter instruction. In fact, according to Abrami et al., (2008) "if the outcome is worth it, the effort is worth it" (p. 1122). Lastly, the curriculum could be tailored to address CT skills identified by the results of the CSRP critical thinking and analysis report. To reiterate, these learning experiences are proctored and practice assessments that compare their critical thinking entrance and exit data.

Innovative Teaching-Learning Strategies

There are many possible strategies that effectively build students' critical thinking skills and problem solving skills, therefore faculty members must also consider

components that extend beyond the way they usually teach. A change in the prevailing faculty members' attitudes whereby the instructor decides about the teaching learning process combined with active learning strategies is timely. Because immediate improvement in the NCLEX-RN pass rate is critical for accreditation and registration with the MBORN more effective instructional methods should be considered by all faculty to include in their curriculum.

Problem-Based Learning Strategies

Entry-level expectations for safe clinical practice require nursing students demonstrate minimal assessment scores that measures critical thinking and problem solving ability throughout nursing school. Undergraduate nursing curricula must bring students' application and analysis levels capacity more effectively into play to expand their problem-solving ability. In other words, Suskie (2009) stated, "student nurses must develop the capacity to use knowledge and understanding in a new context, or think holistically, and analyze and understand the things they haven't seen before" (p. 120). They are required to integrate their learning and show evidence of self-directedness in familiar and unfamiliar nursing situations. For example, a student nurse maybe asked to explain to the instructor why a patient's lab test is abnormally high or low for a given condition or disease. Unfolding case-scenario learning is a teaching-learning strategy that offers students an effective way in understanding knowledge using clinical reasoning which improves CT skills (Brauer, et al, 2009; D'Antonio, Brennan, & Curley, 2013). Case scenario learning, or clinical problem solving exercises involve problem-based learning because they enable students to work in small groups for seeking solutions to situations/problems (Benner, Sutphen, Leonard, & Day, 2010).

Drawing on the reviewed literature, case scenarios engage students more often than the typical lecture-only method and are an effective and engaging way to increase the interactive nature of the learning process. As indicated, former NECC graduates expressed the view that participating in case studies teaching helped improve their CT skills. This feedback reinforces the importance of problem-based learning (Kaddoura, 2011) because case study teaching helps promote a more active and participatory role in adult learning instead of a passive one, whereby the learner is only receiving the information.

Former NECC graduates suggested case studies should be introduced earlier in the nursing program. Nursing faculty members must understand that adults learn best when practical application is encouraged and they relate learning to what they already know (DeSilets, Dickerson, & Riggs, 2010). Thus, "as adults become better at applying their learning and managing their learning processes, they expect opportunities to do just that" (Knowles, Holton, & Swanson, 2011, p. 208). Case studies in nursing education begins with a situation or problem that requires the individual to ask interview questions, complete a physical assessment, and analyze data to a particular client (Weber & Kelley, 2014). This innovative teaching-learning strategy provides students with meaningful learning by experiencing a meaningful connection between a learning concept and a situation (Nilsson & Silen, 2010). Teaching students how to effectively break down a clinical situation into components, and make collaborative decisions based upon an unfolding situation, is consistent with contemporary nursing education and adult learning theory.

Another pedagogical approach that effectively combines technology and is endorsed in nursing curricula is human patient simulation (HPS). A simulation-learning environment is a physical location where simulator generated learning experiences take place created by a facilitator to foster sharing and discussion of participant experiences (Meakim et al., 2013). Learning is broadly accomplished using low-fidelity simulation (LFS), medium-fidelity simulation (MFS), or high-fidelity simulation (HFS) (Stroup, 2014). Depending upon the manikin fidelity, simulators can be programmed to permit heart sounds, breath sounds, bleeding, and speech. Simulators add a level of realism to a patient situation so that students learn to identify specific problems or interventions in a controlled environment. Wood and Toronto (2012) reported multiple studies in nursing literature that showed significant increases in students' CT and judgment following simulations. Furthermore, the NCSBN demonstrates higher levels of support for the use of simulation (Kardong-Edgren, Adamson, & Fitzgerald, 2010). Former NECC graduates reported simulation technology provided a rich learning experience for all types of learners.

Improving educational programs and practices draws on significant research demonstrating that students learn more effectively when they are actively involved in self-directed learning and they receive frequent and prompt feedback on their work (Suskie, 2009). Research-supported teaching-learning strategies are vital components of high quality teaching and higher quality student learning (Groccia & Buskist, 2011). Prelicensure nursing graduates must pass the NCLEX examination to meet licensing requirements in the United States. Vital outcome measures for nursing programs include graduates' NCLEX pass rates. Nursing faculty should evaluate course outcomes and

clinical outcomes to verify that outcomes are being met (Billings & Halstead, 2012).

Preparing graduates using effective teaching learning strategies and restructuring nursing

curriculum will help promote learning comprehension, CT and problem solving skills,

student outcomes, and improve success on the NCLEX-RN.

 The NECC nursing program completes and submits a self-study report to ACEN.

The AI process will assist nursing faculty members in discovering successful teaching-

learning strategies that they currently employ in their pedagogies. Providing faculty

members with resources to prepare their curriculum with effective, up-to-date

understanding of teaching pre-licensure nursing students will positively transform student

outcomes.

Summary of Literature Review

 Data collected during the audio-recorded focus groups and document review

provided the framework for this literature review. Examining the CSRP student tutorial

package and faculty toolkit with a CSRP consultant will assist in designing an NCLEX-

RN Preparation Seminar to set the stage for what students should expect throughout the

future curriculum. I concentrated on a three-day NCLEX-RN Preparation Seminar by

capitalizing on interactive teaching-learning strategies that focused on improving CT and

problem solving in order to be prepared for successful completion of the NCLEX-RN.

Moreover, a three-day NCLEX-RN Preparation Seminar designed to address specific

teaching-learning strategies and resources will help students improve upon their academic

performance and effectively prepare for the NCLEX-RN exam.

Implementation

Implementation will begin with documenting processes that are associated with a developing a new curriculum design (Spaulding, 2008). I was interested in documenting strengths of the NECC program, current instructional strategies implemented by faculty members or students' themselves that enhanced their ability to pass the NCLEX-RN on the first administration. Reviewing the current Nurse Education Department Course Objectives and curriculum plan will help nursing faculty members see what teaching-learning strategies are currently being used for specific courses in their curriculum. After reviewing the current Nurse Education Department Course Objectives and Educational Objectives, they can consider where to devise changes in their course curriculum. This change would incorporate a new three-day NCLEX-RN Preparation Seminar designed to integrate critical thinking skills which capitalizes on effective teaching-learning strategies discovered during this project study (see Appendix A). The nursing department could modify the placement of the three-day NCLEX-RN Preparation Seminar within a specific course or choose the appropriate area of the curriculum to inform the process. The project implementation plan will also consist of taking the SWOT design strategy and presenting it to the nursing department chairperson and interim dean of the nursing department for suggestions and approval. I developed a SWOT (strengths, weaknesses, opportunities, threats) delivery design based upon strategies and suggestions that surfaced from participants during the AI inquiry process of this project study. Conducting a SWOT matrix enabled me to identify the strengths, weaknesses, opportunities, and threats of the existing CSRP learning system. Once this was completed, the SWOT analysis determines what can be of assistance to the organization in accomplishing its

objectives, and what obstacles must be minimized to achieve desired results (SWOT, n.d.).

Internal performance factors are strengths and enhancers. In this quadrant, one effective teaching-learning resource that can be implemented includes CSRP curriculum support for the nursing department that would really add value to first semester students. Bristol (2012) stated that "students experience frustration if they are expected to use or purchase a complex tool for just one learning activity" (p. 80). Thus, it is important to put into place immediate interventions such as a scheduled CSRP onsite student orientation because this is an integral strategy the nursing department adopted for NECC students. Partnering with the CSRP education specialist will require faculty buy-in for facilitating curricular integration of CSRP beginning Semester I. The implementation time should be fast once the students are oriented to use the required CSRP resources. Internal weaknesses are inhibitors or forces that could involve significant costs related to continuing to adopt the CSRP partnership, lab-related costs for software updates, and simulation learning environment.

Figure 4. SWOT Analysis

PERFORMANCE ⟍ FACTORS	Enhancers	Inhibitors
Internal	**STRENGTHS** • Curriculum support was added with the adoption of CSRP throughout the nursing program since 2007. • The nursing program is committed to increased use of technology. That commitment to technology includes embracing Simulation more extensively as part of the nursing curriculum.	**WEAKNESSES** • Fiscal resources for the nursing program including multimedia resources for the psychomotor skills, DVDs and Simulation Lab-related nursing software costs. • Purchases for adopted CSRP curriculum support and online NCLEX preparation costs.
External	**OPPORTUNITIES** • Ongoing, formative feedback recognizing student progression with CSRP Student Package • More frequent proctored, mandatory online CSRP quizzes • Mandatory on-campus orientation to required CSRP Student Package • Curriculum support with CSRP for student training and faculty support to utilize the CSRP tools.	**THREATS** • The NECC Curriculum Committee is the vehicle for proposing course modifications, a new course, or new program. • Funding to support the nursing department budget is constrained. In collaboration with the faculty, the chairperson makes decisions regarding purchases for the nursing unit. Final decisions rest with the Division Dean and Vice President of Academic Affairs.

External performance factors are teaching-learning opportunities that would really add value to first semester students. In this quadrant, the CSRP education specialist could be scheduled for student orientation during Semester I. Enlisting CSRP tools and strategies should be implemented immediately because the main value of the virtual CSRP student tools is that as a teaching modality, many students review the material prior to class and learn to take computerized quizzes and tests because the NCLEX-RN exam is also computerized. External performance factors threats are situational forces or threats that could require a significant amount of time to accomplish curricular changes due to policies of the nursing department that are governed by contractual matters. Also, prior to the startup of any new curricular change to the existing curriculum, NECC faculty members are required to submit the new plan for review to the college curriculum review committee or college administration before being implemented or adopted.

Potential Resources and Existing Supports

The CSRP curriculum support service is a potential resource because continuation of effective instructional strategies and interventions can be time-consuming in the absence of adequate technological support and resources. Enlisting the CSRP virtual curriculum support service will help facilitate student outcomes by providing structure for individual courses and clinical objectives throughout the nursing program. The nursing program is committed to technology including embracing simulation more extensively as part of the nursing curriculum. The NECC nursing program currently holds a partnership with a CSRP including integration of both CSRP student and faculty resources supports student success throughout the NECC curriculum since 2008. The

NECC nursing program is assigned to a CSRP Faculty Support Specialist to assist with student orientation and one-on-one training for faculty upon request.

The existing support will begin with the NECC nursing department, department chairperson, and the Division Dean. By scrutinizing their own curricular content the nursing faculty is in a position to contribute to reinforcement of key teaching-learning strategies throughout the entire curriculum (Geist & Catlette, 2009). The CSRP faculty resources include full usage of effective teaching-learning strategies and creativity in the classroom, whereas the student resources include a customized live three-day NCLEX-RN review class. The NECC nursing education unit and its resources to implement and coordinate the CSRP program intervention was a significant concern. The CSRP student resources as a particular strategy would require faculty buy-in for additional curricular support for first semester students. To main consistency in the curriculum, the required CSRP student resource has significant use in curricular development. For example, the CSRP is an interactive, audio-visual online tutorial designed to introduce students to a critical thinking guide, test taking skills, and the NCLEX examination process. Testing, remediation strategies, and case studies are also included in every CSRP module for students and faculty members to benefit from.

Potential Barriers

One potential barrier I envision is time because NECC is preparing for ACEN reaccreditation in 2015. ACEN is the major accrediting organization for associate degree nursing programs in the United States. Curricular revisions at this juncture might be postponed before the ACEN external reevaluation period. Preparing for program ACEN visitation requires the full support of the nursing administration and faculty members.

Undertaking and gaining approval for a course modification, or new course involves considerable planning, communication, and cooperation. The NECC Curriculum Committee is not an expeditious one when submitting a course modification or making changes to an existing program. Completing the draft of a modification proposal, and gathering supporting documents must be submitted electronically at least one week before the committee meeting in which they will discuss it (███████████ ███████). Nursing faculty members who want to undertake curricular support through CSRP for first semester students should be supported by the college in matters of compensation, workload, and that their work will be valued, and the means to complete it will be available.

On the positive side of this, new data from the CSRP reports will measure and report achievement scores for content, critical thinking, including feedback with national and group rankings. Providing evidence about the feasibility and effectiveness of CSRP resources to improve student outcomes and on first-time NCLEX-RN pass rates would begin with first semester students following the ACEN reaccreditation process. Nursing faculty members' consensus and commitment, as well as administrative consensus from the college is essential before altering the first semester curriculum. Ongoing feedback and data from CSRP to the nursing department including scores from the CSRP comprehensive exam, and other systematic data could become the basis of recommendations or reexamination of the CSRP exam for graduates in the future.

Another potential barrier I envision might be the NECC nursing education faculty members may not fully support implementing the existing CSRP student package revealed from this project study. Appreciative inquiry from former graduates capitalized

on the positive core, effective instructional strategies within NECC. AI engages all
stakeholders in a cooperative learning and cocreation process (Cooperrider &Whitney,
1999). For this reason, I do not anticipate that their consensus toward improving
academic outcomes, internal benchmark, and future NCLEX pass rates will actually be a
barrier.

Proposal for Implementation and Timetable

Implementation of a new curriculum design with a three-day NCLX-RN
preparation Seminar will encompass faculty preference by policies of the NECC nursing
education department. The proposal for implementation of discovered effective
instructional strategies will take place from the first semester Nursing I course in the
curriculum that follows a logical, sequential plan that runs from simple to complex.
Nursing I introduces students to utilize at a beginning level the steps of the nursing
process and critical thinking in the delivery of nursing care. This study revealed there
were no course objectives or educational objectives that specified the foundation for the
sequencing and introduction to the required CSRP student package.

During the first few weeks of semester I, and after students pay for and receive
their required CSRP bundle at the college bookstore, individual CSRP accounts are
activated. Once students' accounts are activated, a prescheduled CSRP Education
Specialist will meet students face-to-face in the college computer laboratory over 4 hours
to help them register for CSRP and to use the student resources and tutorials. The
computer laboratory will be reserved for a 3-day period during the first semester to allow
students to participate in the CSRP orientation session. The student cohort will be
comprised of all NUR 101/111 students enrolled in the first semester associate-degree

nursing program (ADN), and two full-time faculty members assigned to teach NUR 101/111 and two full-time nursing instructors currently assigned to facilitate the nursing skills laboratory. Currently, both laboratory skills faculty members are trained to operate and facilitate simulation in the nursing lab.

The new NCLEX-RN Preparation Seminar will begin in Fall 2016. Creation of a modified first semester curriculum will help the NECC NUR 101/111 faculty members prioritize which instructional strategies that should be structured into the NCLEX-RN Preparation Seminar immediately. Applying this approach to NUR 101/111 course content would be infused with a two-step approach; simply, curriculum that scaffolds from course objectives and educational objectives that specify the foundation for the sequencing and introduction to the required CSRP student package that align with the development of critical problem solving skills and thinking skills in the delivery of holistic nursing care. Included in the seminar is a mock case study which is aligned with NCLEX-style questions, including introductory online CSRP quiz geared to familiarize students with computerized testing methods and assess students' continual learning.

Student Responsibilities

Every NECC nursing student is required to purchase the CSRP student package during Semester I. They are not required to have a computer with Internet access to use the CSRP learning system. The CSRP tutorial products include related content in pharmacology, medical-surgical, mental health, maternity, pediatric, and community health topics to essentially prepare them in becoming RNs. The existing CSRP curriculum and the NECC curriculum are not aligned.

The NECC computer laboratory is open to all students enrolled at the college. All NUR 111 students have online learning experience because general education courses are sequenced throughout the nursing curriculum to provide support and information for students as they apply this information in giving nursing care and applying the nursing process. College Writing I (ENG 111), Anatomy and Physiology I (BIO 203), and Drug Calculations (NUR 100) are prerequisites to first semester nursing courses (███, 2013a). Students must have the ability to communicate effectively in writing and have knowledge of Anatomy and Physiology and accurate drug calculations skills to be successful in first semester nursing courses.

The former NECC graduates have shared stories about 'worked' for them that they have done on their own to achieve a passing score on NCLEX on the first try. First semester students will learn how to integrate CT skills, problem-solving skills, and clinical reasoning skills through individualized, guided practice with CSRP tools. These self-directed strategies will provide additional formative data to help students and their instructor identify factors that may exacerbate personal performance during exams such as anxiety or test-taking problems (Grossbach & Kuncel, 2011). Among these benefits are the effects from deliberate NCLEX-RN preparation, repeated practice, and experiential learning supported with adjunctive strategies from nursing faculty members and mandatory CSRP tools.

Faculty Responsibilities

The former NECC graduates revealed the various instructional strategies by faculty members or students' themselves that enhanced their ability to pass the NCLEX-RN on the first administration. The role and responsibility of the nursing faculty

members are to schedule new clinical orientations for students that do not conflict with the scheduled seminar dates. Next, faculty members should begin writing principal teaching-learning approaches as a proposed source of direction for the three-day NCLEX-RN Preparation Seminar that capitalize on the strengths of the current NECC nursing program.

These proposed instructional approaches will serve as the source of direction for the context in which it is offered, and for all subsequent instructional aspects of NECC Nursing I course curriculum. Creation of these proposed teaching-learning strategies and student experiences are dependent upon approval from the NECC nursing unit and administration. Location and creation of first semester curricular areas will help the NECC nursing department determine that a three-day NCLEX-RN Preparation Seminar is possible, and determine what additional tools are needed for this undertaking. The NECC nursing faculty members need to follow through by incorporating and working those CT and problem solving strategies that were revealed in this project study into more of their courses.

Project Evaluation

Encouraging reflection to evaluate the project will help me put together what I have learned with what students have learned as an effective project evaluation strategy. Evaluation is a reiterative process. I will begin to collect on-going CSRP proctored test scores from first semester courses including unit and compare these from year to year. These assessments will provide me with formative evaluation information to see if the changed NUR 101/NUR 111 curriculum and three-day NCLEX-RN seminar does indeed learn to improved test scores and NCLEX pass rates. I will also begin to track

the students' Qualtrics surveys from year to year to see if the CSRP tools enabled

students to use efficient learning techniques and increases critical thinking and problem-

solving ability. These surveys will provide me with summative evaluation information

that I anticipate will provide the nursing department with additional information in order

to make necessary adjustments in the existing curriculum including justification for

making students accountable for buying the required CSRP earning system. The NECC

nursing program ACEN reaccreditation process is scheduled to occur during 2015. That

report will provide me with various venues to address this study's findings. By

compiling and sharing the results of this research with the nursing department

chairperson and administration I could effectively collaborate with faculty members, and

articulate about instructional methods that effectively help students develop the skills

and dispositions they need to successfully prepare for the NCLEX exam.

Implications Including Social Change

Local Community

I addressed and verified why a significant number of the NECC graduates do not

pass the National Council Licensure Examination Registered Nurse (NCLEX-RN) on

their first attempt resulting in chronic fluctuations in NCLEX-RN pass rates. Only 64%

of NECC graduates passed the NCLEX-RN from September to November 2013

(NCSBN, 2013b), and NECC candidates are scoring below the current 83% national

standard on their first attempt. I identified additional factors that contribute to

ineffective outcome performances on the NCLEX-RN. This problem was verified by

reviewing accreditation reports and documents. Research questions guided this project

using the appreciative inquiry process. I discovered NECC's positive core, identified

the dreams, listened to ideas on curricular change, and received suggestions to deliver effective instructional strategies in order to improve first time NCLEX-RN pass rates.

By capitalizing on the positive core, effective instructional strategies, I anticipate that NECC student outcomes and future NCLEX-RN scores will improve. Improving first-time pass rates of nursing students on the NCLEX-RN is of utmost importance to all NECC stakeholders including the local medical community. NECC students must achieve a satisfactory score on all components of the final evaluation including clinical requirements of the program, and all program requirements to be eligible for the NCLEX-RN exam.

The health care system of today demands competent nursing graduates who are adequately prepared to impact patient care outcomes. In view of the shortage of qualified RNs in the United States, this would be a significant opportunity for NECC to contribute to such a vital need. One tangible outcome of social change in nursing education is a new RN who critically questions societal and cultural practices to improve community health issues that affect all of us. Critical thinking is then operationalized because self-directed RNs engage in purposeful reflection and logic by identifying other assumptions that are contrary to their own. Recognizing that the nursing shortage important to students, families, instructors, administrators, and community partners because concern about the growing shortage for RNs is national in scope. As noted previously, the nursing shortage affects entire communities (Stichler, Fields, Kim, & Brown, 2011). Strengthening recruitment partnerships between the NECC nursing program, and the local community can be invaluable in developing and implementing social change. Moreover, it is crucial in addressing nursing shortages to forge

partnerships between key stakeholders directly linked to the local supply of qualified new nurses for recruitment to meet current and future demand.

Far-Reaching

Knowledge gained from this research study may assist other community college nursing programs which are considering curricular changes to establish and maintain high NCLEX-RN pass rates. I focused on former NECC graduates learning, and the teaching-learning processes by knowing what motivates student nurses to learn, what interests them during learning, and what positive choices they make regarding their own learning. This research study and the results will help inform the present body of knowledge regarding positive interventions that potentially enhance NCLEX-RN test-taking skills from the perspective of students. I anticipate that future NECC nursing students will have improved pass rates on the NCLEX-RN exam.

I plan continue to in my role as advocate in prelicensure nursing education to create motivating learning environments by doing presentations and further writings based on my study. As Galbraith (2004) stated, "being an important part of another's growth can be rich" (p. 467). Therefore, in addition to personal fulfillment, I believe it is important to continue advocating in this realm and providing additional support and vision to similar nursing programs and nursing students who may also benefit from the results of my project. Specifically, doing conference presentations and writing articles about the topic of NCLEX-RN preparation offers others a visual record of this work. During this short period, I affirmed the CT development of student nurses during NCLEX-RN preparation. This personal collaboration with them inspired me to broadly share their success stories.

Conclusion

This section described the goals of the project and provided evidence that a seminar is an efficacious means of preparing prelicensure student nurses of for NCLEX-RN with evidence-based teaching-learning strategies. The criteria used to guide development of the project, implementation of the project, and implications for social change were also presented and considered.

Finally, Section 4 is an analysis of the project section including the project strengths and limitations, as well as recommendations for addressing remediation of the limitations. Implications and directions for future research were also discussed. This section also provided a means for me to reflect upon my role as a scholar, project developer, and practitioner.

Section 4: Reflections and Conclusions

Introduction

This study investigated effective instructional strategies that the NECC nursing program could implement in the curricula in order to improve NCLEX-RN first-time pass rates of nursing students. This appreciative inquiry study used a qualitative case study design and purposeful sample consisting of former NECC (2009 to 2014) associate degree nursing graduates who passed the NCLEX-RN on the first administration. A total of 15 former NECC graduates consented to participate in the audio-recorded focus groups. Twenty-five documents including accreditation reports were examined in a document review. Data and themes were formed and collated; the descriptions and themes became the basis for the AI 4-D cycle of discovery, dream, design, and deliver. Qualitative data revealed that there were instructional strategies implemented by faculty members or students themselves that enhanced students' ability to pass the NCLEX-RN on the first administration. The final project developed was a formalized NCLEX-RN preparation seminar, which is an efficacious means of providing prelicensure nursing students with structured, innovative, and evidence-based instructional strategies during their first semester in the undergraduate nursing program.

Project Strengths

The project's strengths in addressing the investigated problem were embedded in the positive inquiry that was generated through appreciative inquiry strategies that were already in place for nursing students at the college to help them achieve positive outcomes. The interviews involved former graduates of the NECC nursing program. Data yielded information about efficacious current and past teaching-learning strategies

used by NECC faculty members and students that need to be incorporated into the learning process. According to Cooperrider and Whitney (1999), "appreciative interviews uncover what gives life to an organization, department, or community " (p. 11). The use of an affirmative focus approach was an ideal choice based upon the fact that I was seeking grounded examples of the positive core and of teaching-learning strategies used by faculty members for NCLEX-RN preparation that were evidence-based. Technology was used effectively to support instructional processes.

Data analysis from this study provided nursing faculty members with efficacious pedagogical strategies that are being used as a catalyst in the consideration of curriculum changes in the nursing program at NECC. The former graduate interviews illuminated potential factors/teaching-learning strategies that helped students develop problem solving and critical thinking skills to assist them in passing the NCLEX-RN on their first attempt. Multiple data collection techniques were used, including focus group interviews and document reviews. This information provided additional insight into what CSRP tools students used that may have assisted them in passing the NCLEX-RN the first time. This information was transferred into the proposed seminar curriculum design. This project study and subsequent research are important and will best meet the needs and purposes of future NECC nursing students seeking to graduate and pass the NCLEX-RN on the first administration.

Recommendations for Remediation of Limitations

All research studies have limitations, and several limitations were identified with this study. The sample for this study was limited to registered nurses who graduated from a multicampus urban community college located in the northeast region of the

United States between 2010 and 2014. The choice of a purposeful sampling methodology for this study limited the generalizability of findings to the population of all prelicensure nursing programs. Data missing from former 2010 graduates decreased the final number of participants for the analysis and contributed to the relatively small sample size. This aspect may account for why more focus groups were justified because former graduates' perceptions about NCLEX-RN preparation and strategies were important to this study's findings. During the focus groups, what participants said might have influenced other individuals or group dynamics that unfolded. As the appreciative inquiry process required the participants to find and use their own voice in answering the questions, results depended upon the honesty of the participants, and their responses did not reflect the consensus of the group.

In addition, the appreciative inquiry process was designed to deliver new curriculum that decision makers in the NECC nursing department may choose to implement in an effort to help NECC nursing program students improve future pass rates. Without further analysis, it is unclear whether sufficient data were generated to provide predictive value or probability of NECC graduates passing the NCLEX-RN on the first attempt. The reliability of the study findings was dependent upon my consistency in transcription, categorizing, coding, and reporting procedures of the audiotaped interviews. The influence of the required CSRP student package elements on the participants' perceived level of success and scores on the NCLEX-RN remains unclear.

Scholarship

According to the National League for Nursing (2005), "the development of a master nurse educator evolves over time" (p. 14). During this period, I have learned that

engaging in scholarly activities and implementing scholarly activities deserve considerable time. This insight will promote greater personal and professional respect for reflective practice of students and colleagues. Demonstrating the qualities of a scholar takes great courage, perseverance, and successful collaboration with individuals in other disciplines.

As I reflect back on my journey, my perception of scholarship has been enriched through doctoral-level education because this process has helped strengthen my professional values through an iterative process of self-reflection and recognition. I have come to appreciate that scholarship is an integral component of my faculty role and requires great courage on my part. As a nurse practitioner, I had been accustomed to implementing scholarship findings rather than generating new scholarship. Acknowledging how scholarship contributes to the academic community required immense perseverance on my part. During this journey, I worked diligently to increase my effectiveness as a writer, researcher, and life-long learner. Engaging in countless literature reviews taught me to examine research findings more critically and to explore a research study with an open mind and interpretive lens. I worked to acknowledge with an appreciative eye toward evidence building in every discipline. As I learned to conduct qualitative research and became more familiar with designing and implementing a study, I continually pursued the knowledge base that supported an evidence-based research study.

I chose to research a topic that reflected current trends and issues related to higher education and extant issues in nursing education. As the research progressed, I experienced profound changes in my beliefs and became confident that I will positively

affect student outcomes on a larger scale based on my research. I have gained in-depth knowledge in relation to effective NCLEX-RN teaching-learning strategies needed during the prelicensure process. I am confident that this expanding local research in undergraduate nursing education has created a profound shift in my effective collaboration with other disciplines, enhancing my future marketability to professional nursing and allied medical organizations.

Project Development and Evaluation

Project development and evaluation are iterative processes that require pushing-resisting processes to move a project from a general idea into a reality. Initially, the idea of developing this project seminar was an abstract and amorphous concept. A combination of conceptual theories from appreciative inquiry and constructivist theory emerged as my starting point for this project study. Perspectives on strategies that helped students succeed on the first administration of the NCLEX-RN were analyzed through the theoretical frames of Knowles (1978) and Cooperrider and Whitney (2005). The culminating NCLEX-RN preparation seminar emerged using the SWOT analysis strategy. I learned that the NECC nursing program is effective in teaching students critical thinking and problem solving strategies during courses to successfully pass the NCLEX-RN on the first administration.

In addition, I learned that students and faculty members do collaborate on a regular basis throughout the educational experience of nursing students. Curriculum review and evaluation should be a continuous improvement process shared between and among NECC administrators and nursing department members. Preparing students for the NCLEX-RN examination requires a strong commitment to ensure that prelicensure

NCLEX-RN preparation is strategic, aligned to program goals and learning objectives. This alignment, along with effective teaching-learning strategies, will support the achievement of students' goals of becoming RNs on the first administration of the NCLEX-RN examination.

Leadership and Change

Through the scholarly process of inquiry and personal change, I was committed to fully exploring more leadership responsibilities as an academician. Change required me to yield prior assumptions so that new ones could be incorporated; this shift undoubtedly prepared me to encounter further conflict and to adapt to new role possibilities as an educational leader. For example, in my local community, I plan to serve as a consultant for other nursing colleagues who are willing to think about the yet-to-be-discovered possibilities during prelicensure to understand and address fluctuations in passing rates on the NCLEX examination. I believe that change is inevitable in nursing practice and education. As Parse (1998) stated, "nursing knowledge is the rightful content of nursing curricula" (p. 60). I can honestly say that I feel empowered to challenge my nursing department colleagues to strive for excellence rather than maintaining a status quo perspective. The proposed project and SWOT strategy emerged because I believed I could be a change agent who would promote greater social change. Former NECC graduates provided the nursing program with appreciative insight to empower future NECC stakeholders to maintain high standards of clinical performance and academic preparedness for their nursing students' careers and successful performance on the first administration of the NCLEX-RN examination.

Analysis of Self as Scholar

When I began this academic and research journey, I had never fully understood what scholarship by collaboration with individuals entailed. I eagerly accepted the fact that evidence-based practice would fully expand my view of educational research in general but never thought that those doctoral learning experiences would significantly increase my own self-efficacy. Learning about myself as a scholar motivated me to consider personal change in order for me to maximize this learning experience. I have evolved as a thinker and a practitioner by furthering my education to become a competent professional. Prelicensure nursing education is an effective domain for evidence-based NCLEX-RN preparation strategies. As a new scholar, I believe it is now my turn to exemplify successful self-efficacy.

Analysis of Self as Practitioner

For nearly three decades, I listened to student nurses and nurse instructors fret about anything and everything related to the NCLEX examination. I secretly shared their anguish and always wished that there was something more that I could say or do to ameliorate their stressful perceptions of NCLEX-RN preparation. Still, painful stories surfaced after I became an RN in 1988 and as I earned my Bachelor of Science and Master of Science degrees in nursing from 1999 to 2010. These stories served as a catalyst for my EdD. I believe that my vision of a nursing program where the entire class passes the NCLEX-RN on the first administration should never be just "a story." One of the first lessons I teach in nursing education is "Give yourself permission to fall down, but please help yourself up." During this doctoral journey, I listened to my committee members' voices as they gifted me with different perspectives that challenged my

thinking and ideas, making all the difference. When it felt as though I was completely

alone on this journey, I always reached out to other practitioners from different

disciplines to mentor, encourage, and guide me to stand up and keep going forward. I

found this strategic approach to be successful. The emotional and intellectual reward of

this doctoral journey will far outweigh any professional and/or financial gain that could

be part of my future. Without a doubt, I am a changed person who took the risks and

whose practitioner skills were tested in many ways, and I now believe that I am on the

cusp of perfecting my skills as a teacher and nursing scholar.

Analysis of Self as Project Developer

As a first-generation college graduate and registered nurse, I discovered that when

faced with enormous personal challenges, I actually do have the resources to succeed on

my own. Instead of merely drawing on the strength of wishful thinking to succeed in

nursing education, I have learned to make changes with a spirit of tenacity. My project

developer role was the most difficult educational challenge thus far in my professional

career. Becoming a project developer proved to be a profound experience because my

existing social network was reinforced while new social and professional supports were

established. In my role as program planner, I was challenged to believe that I could not

only make necessary curricular changes using evidence-based NCLEX-RN preparation

strategies, but also make these changes in a fiscally judicious manner, saving money for

the nursing department.

Nearly 25 years later, I now understand why it is imperative that nursing faculty

members deliver new curricula using effective instructional strategies that enable students

to effectively make connections between the imposed nursing curricula that students must

understand and the anticipated value of passing the NCLEX-RN on the first attempt. As a nurse educator, I want to teach others how to teach nurses to teach and learn with a sense of greater purpose. Through reflection during the completion of this project and the curricular changes, I learned that most adult learners desire to be accepted, respected, and connected with others in learning communities and actively ask for help from other professionals. This carefully designed project study helped me to see the effect of having the educational tools that are necessary in order to make lasting change in the educational experience and environment, which can improve students' perceived level of success and scores on the NCLEX-RN examination.

The Project's Potential Impact on Social Change

Collaborating with other nursing professionals to identify which teaching-learning strategies effectively motivated adult students to learn and stimulated their interest during the prelicensure period was an important step in this research project. A strong foundation in critical thinking and problem solving served as a critical component in students' NCLEX-RN performance. These findings may assist other community college nursing program administrators considering NCLEX-RN preparation instructional strategies to establish and maintain high NCLEX-RN pass rates. This project has the potential to impact social change as nursing students leave the program with a greater sense of personal and professional confidence. This confidence will support them in their search for nursing positions and perhaps even in consideration of further nursing education. The use of effective teaching-learning strategies that support and promote students in passing the NCLEX-RN on the first attempt would contribute to the current number of qualified RNs.

Implications, Applications, and Directions for Future Research

A major goal of the project study was to improve critical thinking and problem-solving instructional strategies that exist to support student outcomes and first-time NCLEX-RN results. The research agenda for this project revealed the various instructional strategies used by faculty members and students themselves that enhanced students' ability to pass the NCLEX-RN on the first administration. More research needs to focus on the importance of former graduates' perceptions about NCLEX-RN preparation and studying strategies.

The research agenda for this project also revealed that the time saved by modifying some of the present curricula could be much better spent on helping students complete the NECC nursing program. Future research would benefit from including data extending the consideration of which NCLEX-RN preparation topics first-semester student nurses most identify as needing and wanting to know that will optimize their studying strategies, test-taking techniques, and NCLEX-RN exam performance.

Upon completion of my doctoral program, I will continue to focus on the unique needs of students during the prelicensure period to further explore effective teaching-learning strategies that could assist nursing programs that are struggling with fluctuations in first-time NCLEX-RN pass rates and in risk of losing accreditation. Further exploration of NCLEX-RN examination preparation should include NCLEX-RN studying strategies of undergraduate nursing students. Expanding local research in undergraduate nursing education may provide nursing faculty members with effective pedagogical strategies that could enable their students to successfully pass the NCLEX-RN on the first administration.

While this project is specific to undergraduate pre-licensure nursing periods, it can be applied to the field of education in general because it covered the breadth of evidence-based NCLEX-RN preparation strategies that can potentially improve students' critical thinking and problem-solving development, supportive student outcomes, and the associations between perspectives of learning first time NCLEX-RN results. Furthermore, future research is needed to qualitatively assess students' perceptions about what concepts included during the three-day NCLEX-RN Preparation Seminar do students say impacted their test scores from the first day of the semester to their final semester in the nursing program.

Conclusion

This section discussed the project strengths and limitations, as well as recommendations for addressing remediation of the limitations. Implications and directions for future research were also discussed. It also provided a self- analysis of my role as a scholar, project developer, leader, and practitioner.

As best practice suggests, I believe the wisdom of this study along with the information already presented enabled me to develop a method for formative and summative evaluation that will positively impact students' critical thinking and problem solving ability throughout the nursing program. The added value of the study, its findings, and recommendations demonstrate active commitment to social change. I have also gained confidence to collaborate with a range of stakeholders in higher education at my departmental level and institutional level in order to effect positive change.

References

Abbaszade, A., Borhani, F., & Sabzevari, S. (2013). Nursing teachers' perception of the challenges of clinical education and solutions: A qualitative study. *Journal of Qualitative Research in Health Sciences*, *2*(2), 134-145. Retrieved from http://jqr.kmu.ac.ir/

Abrami, P. C., Bernard, R. M., Borokhovoski, E., Wade, A., Surkes, M. A., Tamin, R., & Zhang, D. (2008). Instructional interventions affecting critical thinking skills and dispositions: A stage 1 meta-analysis. *Review of Educational Research*, *78*(4), 1102-1134. doi:10.3102/0034654308326084

Alameida, M. D., Prive, A., Davis, H. C., Landry, L., Renwanz-Boyle, A., & Dunham, M. (2011). Predicting NCLEX-RN success in a diverse student population. *Journal of Nursing Education*, *50*(5), 261-267. doi:10.3928/01484834-20110228-01

American Association of Community Colleges. (2013). *2013* [Fact sheet]. Retrieved from http://www.aacc.nche.edu/AboutCC/ Documents/2013facts_fold_revised.pdf

Bayerlein, L. (2014). Students' feedback preferences: How do students react to timely and automatically generated assessment feedback? *Assessment & Evaluation in Higher Education*, *39*(8), 916-931. doi:10.1080/02602938.2013.870531

Benner, P. (1984). *From novice to expert: Excellence and power in clinical nursing practice.* Upper Saddle River, NJ: Prentice Hall.

Benner, P., Sutphen, M., Leonard, V., & Day, L. (2010). *Educating nurses: A call for radical transformation*. San Francisco, CA: Jossey-Bass.

Billings, D. M., & Halstead, J. A. (2009). *Teaching in nursing*: *A guide for faculty* (3rd

ed.). St. Louis, MO: Saunders.

Billings, D. M., & Halstead, J. A. (2012). *Teaching in nursing*: *A guide for faculty* (4th ed.). St. Louis, MO: Elsevier.

Bjork, R. A., Dunlosky, J., & Kornell, N. (2013). Self-regulated learning: Beliefs, techniques, and illusions. *Annual Review of Psychology*, *64*, 417-444. doi:10.1146/annurev-psych-113011-143823

Blakely, P., & White, G. (2013). *Massachusetts healthcare chartbook 2013*. Retrieved from http://www.mass.edu/currentinit/Nursing/Docs/Mass_Healthcare _Chartbook.pdf

Bloom, B. S. (Ed.). (1956). *Taxonomy of educational objectives Book 1: Cognitive domain.* New York, NY: Longman.

Bogdan, R. C., & Biklen, S. K. (2007). *Qualitative research for education: An introduction to theories and methods* (5th ed.). Boston, MA: Allyn & Bacon.

Bourgeois, S., Drayton, N., & Brown, A.-M. (2011). An innovative model of supportive clinical teaching and learning for undergraduate nursing students: The cluster model. *Nurse Education in Practice*, *11*, 114-118. doi:10.1016/j.nepr.2010.11.005

Brauer, P. M., Hanning, R. M., Arocha, J. F., Royall, D., Goy, R., Grant, A., & Horrocks, J. (2009). Creating case scenarios or ignites using factorial study design methods. *Journal of Advanced Nursing*, *65*(9), 1937-1945. doi:10.1111/j.1365-2648.2009.05055.x

Bristol, T. J. (2012). The National Council Licensure Examination across the curriculum: Low-tech learning strategies for student success. *Teaching and Learning in Nursing, 7*(2), 80-84. doi:10.1016/j.teln.2012.01.001

Brookfield, S. D. (2010). *Developing critical thinkers: Challenging adults to explore alternative ways of thinking and acting*. San Francisco, CA: Jossey-Bass.

Brown, J. F., & Marshall, B. L. (2008). Continuous quality improvement: An effective strategy for improvement of program outcomes in a higher education setting. *Nursing Education Perspectives*, *29*(4), 205-211. doi:10.1043/1536-5026(2008)029[0205:CQIAES]2.0.CO;2

Brudvig, T. J., Dirkes, A., Dutta, P., & Rane, K. (2013). Critical thinking skills in health care professional students: A systematic review. *Journal of Physical Therapy Education*, *27*(3), 12-25. Retrieved from http://www.aptaeducation.org/members /jopte/

████████████████████████. (n.d.). Curriculum Committee proposal forms. Retrieved November 19, 2014, from https://████████████████████ ████████/org-cuco/Proposal%20Forms/Forms/Proposal%20Forms.aspx

████████████████████████. (2007). *Executive summary self-study 2007* (Report No. 1). Boston, MA: Author.

████████████████████████. (2011). ████████████████████ *2010-2011 Fact Book*. Retrieved from http://████████████/media/03-documents/Fact1011.pdf

████████████████████████. (2013a). *Educational records*. Retrieved from http://████████████/media/01-collegepublications/████████████ 2012-2013-1.pdf

████████████████████████. (2013b). Associate in Science Degree: Nursing program. Retrieved from http://████████████/programsofstudy/

associateinsciencedegrees/nursingprogram/

███████████████████████. (2014). Mission & vision. Retrieved from

http://█████████████/about/missionvision/

███████████████████ Nurse Education Department. (2014). *Student handbook 2013 2014*. Boston, MA: Author.

Burns, N., & Grove, S. K. (2005). *The practice of nursing research: Conduct, critique, and utilization* (5th ed.). St. Louis, MO: Elsevier.

Cabai, K. (2012). *Using Appreciative Inquiry to discover and deliver change for surgical technology students* (Doctoral dissertation). Available from ProQuest Dissertations & Theses Full Text Database. (UMI No. 1235335538).

Caffarella, R. S. (2010). *Designing and assessing learning experiences: A practical guide for educators, trainers, and staff developers* (2nd ed.). San Francisco, CA: Jossey-Bass.

Cant, R. P., & Cooper, S. J. (2010). Simulation-based learning in nurse education: Systematic review. *Journal of Advanced Nursing*, *66*(1), 3-15. doi:10.1111/j.1365-2648.2009.05240.x

Carmichael, E., & Farrell, H. (2012). Evaluation of the effectiveness of online resources in developing student critical thinking: Review of literature and case study of a critical thinking online site. *Journal of University Teaching & Learning Practice*, 9(1), 1-17. Retrieved from http://ro.uow.edu.au/jutlp/

Carrick, J. A. (2011). Student achievement and NCLEX-RN success: Problems that persist. *Nursing Education Perspectives, 32*(2), 78-83. doi:10.5480/1536-5026-32.2.78

Chapman, L., & Giles, D. (2009). Using appreciative inquiry to explore the professional practice of a midwife lecturer. *Studies in Continuing Education*, *31*(3), 297-305. doi:10.1080/01580370903271487

Commonwealth Corporation for the Massachusetts Workforce Investment Board. (2009). *Project Narrative: Affordable Care State Health Care Workforce Development Planning grand s: HRSA-10-284*. Retrieved from http://www.mass.gov/eohhs/docs/eohhs/healthcare-reform/workforce-development-planning-grants.pdf

Commonwealth of Massachusetts. (2014). Entry-level Registered Nurse and Licensed Practical Nurse graduates (RN and LPN). Retrieved from http://www.mass.gov/eohhs/gov/departments/dph/programs/hcq/dhpl/nursing/licensing/stats/registered-nurse-and-licensed-practical-nurse-grads.html

Cooperrider, D. L., & Whitney, D. (1999). *Appreciative inquiry: Collaborating for change*. San Francisco, CA: Berrett-Koehler Communications

Cooperrider, D. L., & Whitney, D. (2005). *Appreciative inquiry: A positive revolution in change*. San Francisco, CA: Berrett-Koehler Communication.

Cooperrider, D. L., Whitney, D., & Stavros, J. M. (2008). *Appreciative inquiry handbook for leaders of change* (2nd ed.). Brunswick, OH: Crown.

Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4th ed.). Boston, MA: Pearson.

Creswell, J. W. (2009). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (3rd ed.). Thousand Oaks, CA: SAGE.

Crisp, G., & Cruz, I. (2009). Mentoring college students: A critical review of the

literature between 1990 and 2007. *Research in Higher Education*, *50*, 525-545. doi:10.1007/s11162-009-9130-2

D'Antonio, P. O., Brennan, A. M. W., & Curley, M. A.Q. (2013). Judgment, inquiry, engagement, and voice: Reenvisioning an undergraduate nursing curriculum using a shared decision-making model. *Journal of Professional Nursing*, *29*(6). 407-413. doi:10.1016/j.profnurs.2012.10.003

Davis, J. (2013). Modeling as a strategy for learning and teaching in nursing education. *Singapore Nursing Journal*, *40*(3), 5-10. Retrieved from http://www.sna.org.sg/site/singapore-nursing-journal/index.php

de Gea, J. M. C., Aleman, J. L. F., & Garcia, A. B. S. (2012). Computer-based nursing education: An integrative review of empirical studies. *Journal of Nursing Education and Practice*, *2*(3), 162-172. doi:10.5430/jnep.v2N3p162

DeSilets, L. D., Dickerson, P. S., & Riggs, C. J. (2010). Taming the pedagogy dragon. *The Journal of Continuing Education in Nursing*, *41*(9), 388-389. doi:10.3928/00220124-20100825-02

Dickerson, P. S. (2005). Nurturing critical thinkers. *The Journal of Continuing Education in Nursing*, *36*(2), 68-72. Retrieved from http://www.healio.com/journals/jcen

Diekelmann, N., & McGregor, A. (2003). Students who fail clinical courses: Keeping open a future of possibilities. *Journal of Nursing Education*, *42*(10), 433-436. Retrieved from http://www.healio.com/nursing/journals/jne

Executive Office of Health and Human Services Massachusetts Department of Public Health. (2013). *Health Professions Data Series Registered Nurses 2010*. Retrieved from http://www.mass.gov/eohhs/docs/dph/com-health/ primary-

care/2010-rn-factsheet.pdf

Executive Office of Health and Human Services Massachusetts Department of Public

   Health. (2014). National Council Licensure Examinations (NCLEX) by School.

   Retrieved from http://www.mass.gov/eohhs/researcher/physical-health/nursing/

   nclex/

Fero, L. J., O'Donnell, J. M., Zullo, T. G., Devito Dabbs, A., Kitutu, J., Samosky, J. T., &

   Hoffman, L. A. (2010). Critical thinking skills in nursing students: Comparison of

   simulation-based performance with metrics. *Journal of Advanced Nursing*,

   66(10), 2182-2193. doi:10.1111/j.1365-2648.2010.05385.x

Forbes, H. (2010). Clinical teachers' approaches to nursing. *Journal of Clinical Nursing*,

   19(5-6), 785-793. doi:10.1111/j.1365-2702.2009.03078.x

Galbraith, M. W. (Ed.). (2004). *Adult Learning Methods* (3rd ed.). Malabar, FL: Krieger.

Geist, M. J., & Catlette, M. (2014). Tap into NCLEX success. *Teaching and Learning in*

   Nursing, *9*(3), 115-119. doi:10.1016/j.teln.2014.02.002

Giddens, J. F. (2012). Selecting concepts for a concept-based curriculum: Application of

   a benchmark approach. *Journal of Nursing Education*, *51*(9), 511-515.

   doi:10.3928/01484834-20120730-02

Gillespie, M. (2013). Student nurse perceptions of client groups and clinical placement

   areas. *British Journal of Nursing, 22*(6), 340-345. Retrieved from

   http://www.britishjournalofnursing.com

Gould, J., & Day, P. (2013). Hearing you loud and clear: Student perspectives of audio

   feedback in higher education. *Assessment & Evaluation in Higher Education,*

   38(5), 554-566. doi:10.1080/02602938.2012.660131

Groccia, J. E., & Buskist, W. (2011). Need for evidence-based teaching. *New Directions for Teaching and Learning*, *128*, 5-11. doi:10.1002/tl.463

Grossbach, A., & Kuncel, N. R. (2011). The predictive validity of nursing admission measures for performance on the National Council Licensure Examination: A meta analysis. *Journal of Professional Nursing*, *27*(2), 124-128. doi:10.1016/j.profnurs.2010.09.010

Hayden, J. K., Smiley, R. A., Alexander, M., Kardong-Edgren, S., & Jeffries, P. R. (2014). The NCSBN National Simulation Study: A longitudinal, randomized, controlled study replacing clinical hours with simulation in prelicensure nursing education. *Journal of Nursing Regulation*, *5*(2), S4-S64. Retrieved from http://jnr.metapress.com/

Health Resources and Services Administration. (2010). *The Registered Nurse Population: Findings from the 2008 National Sample Survey of Registered Nurses*. Retrieved from http://bhpr.hrsa.gov/healthworkforce/rnsurveys/ rnsurveyfinal.pdf

Hmelo-Silver, C. E. (2004). Problem-based learning: What and how do students learn? *Educational Psychology Review*, *16*(3), 235-266. doi:10.1023/B:EDPR.0000034022.16470.f3

Hendricks, S. M., Wallace, L. S., Narwold, L., Guy, G., & Wallace, D. (2013). Comparing the effectiveness, practice opportunities, and satisfaction of the preceptored clinical and the traditional clinical for nursing students. *Nursing Education Perspectives*, *34*(5), 310-314. doi:10.5480%2F1536-5026-34.5.310

Iwasiw, C. L., Goldenberg, D., & Andrusyszyn, M.-A. (2009). *Curriculum development*

in nursing education (2nd ed.). Sudbury, MA: Jones & Bartlett.

Jacobs, P., & Koehn, M. L. (2006). Implementing a standardized testing program: Preparing students for the NCLEX-RN. *Journal of Professional Nursing*, *22*(6), 373-379. doi:10.1016/j.profnurs.2006.06.004

Jayasekara, R., Schultz, T., & McCutcheon, H. (2006). A comprehensive systematic review of evidence on the effectiveness and appropriateness of undergraduate nursing curricula. *International Journal of Evidence-Based Healthcare*, *4*(3), 191-207. doi:10.1111/ j.1479-6988.2006.00044.x

Kaddoura, M. A. (2011). Critical thinking skills of nursing students in lecture-based teaching and case-based learning. *International Journal for the Scholarship of Teaching and Learning*, *5*(2), 1-18. Retrieved from http://digitalcommons.georgiasouthern.edu/ijsotl

Kardong-Edgren, S., Adamson, K. A., & Fitzgerald, C. (2010). A review of currently published evaluation instruments for human patient simulation. *Clinical Simulation in Nursing*, *6*(1), e25-235. doi:10.1016/j.ecns.2009.08.004

Kim, S. C., Oliveri, D., Riingen, M., Taylor, B., & Rankin, L. (2013). Randomized controlled trial of graduate-to-undergraduate student mentoring program. *Journal of Professional Nursing, 29*(6), 43- 49 doi:10.1016/j.profnurs.2013.04.003

Klaassen, J., Smith, K. V., & Witt, J. (2011). The new nexus: Legal concept instruction to nursing students, teaching-learning frameworks, and high fidelity simulation. *Journal of Nursing Law*, *14*(3-4), 85-90. doi:10.1891/1073-7472.14.3.4.85

Knowles, M. S. (1978). *The adult learner: A neglected species* (2nd ed.). Houston, TX: Gulf.

Knowles, M. S. (1970). *The modern practice of adult education: Andragogy versus pedagogy.* Chicago, IL: Follet.

Knowles, M. S., Holton, E. F., & Swanson, R. A. (2011). *The adult learner: The definitive classic in adult education and human resource development* (7th ed.). Burlington, MA: Butterworth-Heinemann.

Kowalaczyk, N., Hackworth, R., & Case-Smith, J. (2012). Perceptions of the use of critical thinking teaching methods. *Radiologic Technology*, *83*(3), 226-236. Retrieved from http://www.radiologictechnology.org

Kowalski, K., Horner, M. D., & Houser, J. (2011). Evaluation of a model for preparing staff nurses to teach clinical groups of nursing students. *The Journal of Continuing Education in Nursing*, *42*(5), 233-240.doi:10.3928/00220124-20101201-05

Kramer, S. H. (2010). *Teaching in virtual worlds* (Doctoral dissertation). Available from ProQuest. UMI dissertations). Available from ProQuest Dissertations & Theses Full Text Database. (UMI No. 3404847).

Kuh, G. D., Kinzie, J., Bridges, B. K., & Hayek, J. C. (2006). *National Postsecondary Education Cooperative (NPEC) Commissioned Paper.: What matters to student success: A review of the literature*. Retrieved from http://nsse.iub.edu/html/pubs.cfm

Lahti, M., Hätönen, H., & Välimäki, M. (2014). Impact of e-learning on nurses' and student nurses knowledge, skills, and satisfaction: A systematic review and meta-analysis. *International Journal of Nursing Studies*, *51*(1), 136-149. doi:10.1016/j.ijnurstu.2012.12.017

Landry, L. G., Almeida, M. D., Orsolini-Hain, L., Boyle, A. R., Prive, A., Chien, A., . . . Leong, A. (2011). Responding to demands to change nursing education: Use of curriculum mapping to assess curricular content. *Journal of Nursing Education, 50*(10), 587-590. doi:10.3928/01484834-20110630-02

Lavin, J., & Rosario-Sim, M. (2013). Understanding the NCLEX: How to increase success on the revised 2013 examination. *Nursing Education Perspectives*, *34*(3), 196-198. doi:10.5480%2F1536-5026-34.3.196

Lechasseur, K., Lazure, G., & Guilbert, L. (2011). Teaching critical thinking for transfer across domains: Dispositions, skills, structure training, and metacognitive monitoring. *Journal of Advanced Nursing*, *67*(9), 1930-1940. doi:10.1111/j.1365-2648.2011.05637.x

Lewis, L. (2010). Massachusetts's initiative unites nurse educators, employers, and funders. *American Journal of Nursing*, *110*(4), 54-57.doi: 10.1097/01.NAJ.0000370160.17976.64

Lewis, S. L., Dirksen, S. R., Heitkemper, M. M., & Bucher, L. (2014). *Medical-surgical nursing: Assessment and management of clinical problems* (9th ed.). St. Louis, MO: Elsevier.

Lockie, N. M., Van Lanen, R. J., & McGannon, T. (2013). Success in chemistry, and supplemental instruction participation on NCLEX-RN performance. *Journal of Professional Nursing*, *29*(1), 49-48.doi:10.1016/ j.profnurs.2012.04.003

Lodico, M. G., Spaulding, D. T., & Voegtle, K. H. (2010). *Methods in educational research: From theory to practice*. San Francisco, CA: Jossey-Bass.

Loftin, C., Newman, S. D., Gilden, G., Bond, M. L., & Dumas, B. P. (2013). Moving

toward greater diversity: A review of interventions to increase diversity in nursing education. *Journal of Transcultural Nursing*, *24*(4), 387-396. doi:10.1177/1043659613481677

Lum, L., Bradley, P., & Rasheed, N. (2011). Accommodating learning styles in international bridging education programs. *High Education, Skills and Work-based Learning*, *1*(2), 147-168. doi:10.1108/20423891111128917

March, K. S., & Ambrose, J. M. (2010). Rx for NCLEX-RN success: Reflections for development of an effective preparation process for senior baccalaureate students. *Nursing Education Perspectives*, *31*(4), 230-232. Retrieved from http://www.nln.org/nlnjournal/

Massachusetts Board of Higher Education. (2010). *Massachusetts Board of Higher Education 2009-2010 Performance Measurement Report*. Retrieved from http://www.mass.edu/library/documents/2010PerformanceMeasurementReport.pdf

Massachusetts Board of Registration in Nursing. (2013). Verification of Massachusetts Nursing Licenses. Retrieved from http://www.mass.gov/eohhs/ gov/departments/dph/programs/hcq/dhpl/nursing/licensing/ verification-of-massachusetts-nursing-licenses.html

Massachusetts Health and Human Services. (2014). National Council Licensure Examinations (NCLEX) by School. Retrieved from http://www.mass.gov/eohhs/ researcher/physical-health/nursing/nclex/

McKenna, L., & French, J. (2011). A step ahead: Teaching undergraduate students to be peer teachers. *Nurse Education in Practice*, *11*(2), 141-145.

doi:10.1016/j.nepr.2010.10.003

McLaughlin, J. E., Roth, M. T., Glatt, D. M., Gharkholonarehe, N., Griffin, L. M., Esserman, D. A., & Mumper, R. J. (2014). The flipped classroom: A course redesign to foster learning and engagement in a health professions school. *Academic Medicine*, *89*(2), 236-243. doi:10.1097/ACM.0000000000000086

McLaughlin, K., Muldoon, O. T., & Moutray, M. (2010). Gender, gender roles and completion of nursing education. *Nurse Education Today*, *30*(4), 303-307. doi:10.1016/j.nedt.2009.08.005

Meakim, C., Boese, T., Decker, S., Franklin, A. E., Gloe, D., Lioce, L., . . . Borum, J. C. (2013). Standards of best practice: Standard I: Terminology. Clinical Simulation in Nursing, 9(6), S3-S11. doi:10.1016/j.ecns.2013.04.001

Merriam, S. B. (2009). *Qualitative research: A guide to design and implementation*. San Francisco, CA: Jossey-Bass.

Merriam, S. B. (2008). *New Directions for Adult and Continuing Education Vol. 119; third update on adult learning theory.* San Francisco, CA: Jossey-Bass.

Mezirow & Associates, J. (2000). Learning as transformation: Critical perspectives on a theory in progress. San Francisco, CA: Jossey-Bass.

Metropolitan Planning Area Council. (n.d.). Metro Boston Data Common. Retrieved from http://metrobostondatacommon.org/snapshots/cities-and-towns/boston/

Morgan, J. M. (2012). Regulating for-profit nursing education programs. *Journal of Nursing Regulation*, *3*(2), 24-30. Retrieved from https://www.ncsbn.org/

Moses, H., Matheson, D., Dorsey, R., George, B. P., Sadoff, D., & Yoshimura, S. (2013). The anatomy of health care in the United States. *JAMA*, *310*(18), 1947-1963. doi:

10.1001/jama.2013.281425

Muirhead, R. J. (2007). E-Learning: Is this teaching at students or teaching with students? *Nursing Forum*, *42*(4), 178-184. doi:10.1111/ j.1744-6198.2007.00085.x.

Murray, T. A. (2013). Innovations in nursing education: The state of the art. *The Journal of Nursing Regulation*, *3*(4), 25-31. Retrieved from https://www.ncsbn.org

Myrick, F., Yonge, O., & Billay, D. (2010). Preceptorship and practical wisdom: A process of engaging in authentic nursing practice. *Nurse Education in Practice*, *10*(2), 82-87. doi:10.1016/j.nepr.2009.03.018

Nacos-Burds, K. (2010). *A comparative analysis of demographic and academic characteristics. Available from ProQuest Dissertations & Theses Full Text Database.* (UMI No. 3438715).

Nadler, L., & Nadler, Z. (Eds.). (1984). *The Jossey-Bass Higher Education Series: Andragogy in action: Applying modern principles of adult learning*. San Francisco, CA: Jossey-Bass.

Nilsson, A. F., & Silen, C. (2010). "You have to know why": The influence of different curricula on nursing students' perceptions of nursing. *Scandinavian Journal of Educational Research*, *54*(6), 631-642. doi:10.1080/00313831.2010.522974

National Council of the State Board of Nursing. (2014). Candidate Performance Report (CPR). Retrieved from https://www.ncsbn.org/1223.htm

National Council of State Boards of Nursing. (2011). *Licensure of nurses and state boards of nursing* [Fact sheet]. Retrieved from https://www.ncsbn.org/ Fact_Sheet_Licensure_of_Nurses_and_State_Boards_of_Nursing.pdf

National Council of State Boards of Nursing. (2013a). *NCLEX Examinations Pass Rates*

2013. Retrieved from https://www.ncsbn.org/Table_of_Pass_Rates_2013.pdf

National Council of State Boards of Nursing. (2013b). *The Fall 2013 Semi-Annual NCLEX Program Reports: NCLEX Program Reports for the period of APR 2013-Sep 2013* (Report No. 08418 0000002 NRN 002). Chicago, IL: National Council of State Boards of Nursing.

National League for Nursing. (2005). *The scope of practice for academic nurse educators*. New York, NY: The National League for Nursing.

Nilsson, A. F., & Silen, C. (2010). "You have to know why": The influence of different curricula on nursing students' perceptions of nursing. *Scandinavian Journal of Educational Research*, *54*(6), 631-642. doi:10.1080/00313831.2010.522974

Niu, L., Behar-Horenstein, L. S., & Garvan, C. W. (2013). Do instructional interventions influence college students' critical thinking skills? A meta-analysis. *Educational Research Review*, *9*, 114-128. doi:10.1016/j.edurev.2012.12.002

Nunes, M. B., & McPherson, M. (2007). Why designers cannot be agnostic about pedagogy: The influence of Constructivist thinking in design of e-Learning higher education. *Studies in Computational Intelligence, 62*, 7-30. doi:10.1007/978-3-540-719748-2

Nurse Education Department. (2013). ███████████████: *Student Handbook 2013-2014*.

Nursing Education Practice Partnership Survey 2005. (2014). Retrieved from http://www.mass.edu/currentinit/documents/NursingPartnershipSurveyBostonEast.pdf

Oermann, M. H., & Gaberson, K. B. (2009). *Evaluation and testing in nursing* (3rd ed.).

New York, NY: Springer.

Oermann, M. H., Yarbrough, S. S., Saewert, K. J., Ard, N., & Charasika, M. (2009).
Clinical evaluation and grading practices in schools of nursing: National survey
findings part II. *Nursing Education Perspectives*, *30*(6), 352-357. Retrieved from
http://www.nlnjournal.org/toc/nhcp/30/6

Ottenbreit-Leftwich, A. T., Glazewski, K., Newby, T. J., & Ertmer, P. A. (2010). Teacher
value beliefs associated with using technology: Addressing professional and
student needs. *Computers & Education*, *55*, 1321-1335.
doi:10.1016/j.compedu.2010.06.002

Pabst, M. K., Strom, J., & Reiss, P. J. (2010). Use of focus groups to elicit student
perception of NCLEX-RN preparation. *Journal of Nursing Education, 49*, (9)
534-537. doi:10.3928/01484834-20090524-04

Paraszcuk, A. M. (2011). *The effects of review classes on performance on comprehensive
assessments and the National Council Licensure Examination of graduating
baccalaureate nursing students* (Doctoral dissertation). St. John's University, New
York, NY. Available from ProQuest Dissertations & Theses Full Text Database.
(UMI No. 3497100).

Pitt, V., Powis, D., Levett-Jones, T., & Hunter, S. (2012). Factors influencing nursing
students' academic and clinical performance and attrition: An integrative literature
review. *Nurse Education Today*, *32*(8), 903-913. doi:10.1016/j.nedt.2012.04.011

Poorman, S. G., Mastorovich, M. L., Molcan, K. L., & Webb, C. A. (2009). Decreasing
performance and test anxiety in practicing nurses. *Journal for Nurses in Staff
Development, 25*, (1) 13-22. doi:10.1097/NND.0b013e318194b4d7

Price, M., Carroll, J., O'Donovan, B., & Rust, C. (2011). If I was going there I wouldn't start from here: A critical commentary on current assessment practice. *Assessment & Evaluation in Higher Education*, *36*(4), 479-492. doi:10.1080/02602930903512883

Reed, J. (2007). *Appreciative inquiry: Research for change*. Thousand Oaks, CA: SAGE.

Rizzo Parse, R. (1998). The human becoming school of thought: A perspective for nurses and other health professionals. Thousand Oaks, CA: SAGE.

Rogers, T. L. (2010). Prescription for success in an associate degree nursing program. *Journal of Nursing Education*, *49*(2), 96-100. doi:10.3928/01484834-20091022-03

Romeo, E. (2010). Quantitative research on critical thinking and predicting nursing students' NCLEX-RN performance. *Journal of Nursing Education*, *49*(7), 378-386. doi:10.3928/01484834-20100331-05

Ronning, W. M. (2009). Adult, flexible students' approaches t studying in higher education. *Scandinavian Journal of Education Research*, *53*(5), 447-460. doi:10.1080/00313830903180737

Scheetz, L. J. (2000). *Nursing faculty secrets*. Philadelphia, PA: Hanley & Belfus.

Shillingford, S., & Karlin, N. J. (2013). The role of intrinsic motivation in the academic pursuits of nontraditional students. *New Horizons in Adult Education & Human Resource Development, 25*(3), 91-102. doi:10.1002/nha3.20033

Simon, E. B., McGinniss, S. P., & Krauss, B. J. (2013). Predictor variables for NCLEX-RN readiness exam performance, *Nursing Education Perspectives 34*(1), 18-24. doi:10.5480/1536-5026-34.1.18

Sinclair, B., & Ferguson, K. (2009). Integrating simulated teaching/learning strategies in undergraduate nursing education. *International Journal of Nursing Education Scholarship*, *6*(1), 1-11. doi:10.2202/1548-923X.1676

Spaulding, D. T. (2008). Program evaluation in practice: Core concepts and examples for discussion and analysis. San Francisco, CA: Jossey-Bass.

Spector, N., & Odom, S. (2012). The initiative to advance nursing education: Three years later. *Journal of Nursing Regulation*, *3*(2) 40-44. Retrieved from http://jnr.metapress.com/

Spurlock, D. (2013). The promise and peril of high-stakes tests in nursing education. *Journal of Nursing Regulation*, *4*(1), 4-8. Retrieved from http://jnr.metapress.com/content/u3uk17m21h014161/fulltext.pdf

Stes, A., Min-Leliveld, M., Gijbels, D., & Van Petegem, P. (2010). The impact of instructional development in higher education: The state-of-the-art of the research. *Educational Research Review*, *5*(1), 25-49. doi:10.1016/j.edurev.2009.07.001

Stichler, J. F., Fields, W., Kim, S. C., & Brown, C. E. (2011). Faculty knowledge, attitudes, and perceived barriers to teaching evidence-based nursing. Journal of Professional Nursing, 27(2), 92-100. doi:10.1016/j.profnurs.2010.09.012

Suliman, W. A. (2006). Critical thinking and learning styles of students in conventional and accelerated programs. *International Nursing Review*, *53*(1), 73-79. doi:10.1111/j.1466-7657.2006.00445.x.

Suskie, L. (2009). *Assessing student learning: A common sense guide* (2nd ed.). San Francisco, CA: Jossey-Bass.

Taylor, C. R., Lillis, C., LeMone, P., & Lynn, P. (2011). *Fundamentals of Nursing: The art and science of nursing care* (7th ed.). Philadelphia, PA: Lippincott Williams & Wilkins.

The Accrediting Commission on Education in Nursing for Associate Degree RN Programs. (2013). *ACEN 2013 Standards and Criteria Associate*. Retrieved from http://www.acenursing.net/manuals/SC2013_ASSOCIATE.pdf

Thompson, G. N., Estabrooks, C. A., & Degner, L. F. (2006). Clarifying the concepts in knowledge transfer: A literature review. *Journal of Advanced Nursing*, *53*(6), 691-701. doi:10.1111/ j.1365-2648.2006.03775.x

Thomson, P., Smith, A., & Annesley, S. (2014). Exploration of the effects of peer teaching of research on students in an undergraduate nursing progammme. *Journal of Research in Nursing*, *19*(5), 415-430.doi:10.1177/1744987113519444

Walden University. (n.d.). Ed.D. Doctoral Study Procedures and Documents. http://researchcenter.waldenu.edu/EdD-Doctoral-Study-Program.htm

Wangensteen, S., Johansson, I. S., Bjorkstrom, M. E., & Nordstrom, G. (2012). Newly graduated nurses' perception of competence and possible predictors: A cross-sectional survey. *Journal of Professional Nursing, 28*(3), 170-181. doi:10.1016/j.profnurs.2011.11.014

Watkins, R., & Corry, M. (2001*). E-Learning Companion: A student's guide to online success* (2nd ed.). Boston, MA: Houghton Mifflin.

Weber, J. R., & Kelley, J. H. (2014). *Health Assessment in Nursing* (5th ed.) Philadelphia, PA: Lippincott Williams & Williams.

Weimer, M. (2002). *Learner-centered teaching*. San Francisco, CA: Jossey-Bass.

Wolf, Z. R., Bender, P., Beitz, J. M., Wieland, D. M., & Vito, K. O. (2004). Strengths and weaknesses of faculty teaching performance reported by undergraduate and graduate nursing students: A descriptive study. *Journal of Professional Nursing*, *20*(2), 118-128. doi:0.1016/j.profnurs.2004.03.003

Wood, P., & Butt, G. (2014). Exploring the use of complexity theory and action research as frameworks for curriculum change. *Journal of Curriculum Studies*, *46*(5), 676-696. doi:10.1080/00220272.2014.921840

Wood, R. Y., & Toronto, C. E. (2012). Measuring critical thinking disposition of novice nursing students using human patient simulators. *Journal of Nursing Education*, *51*(6), 349-352. doi:10.3928/01484834-20120427-05

Yates, L., & Sandiford, J. (2013). Community college nursing student success on professional qualifying examinations from admission to licensure. *Community College Journal of Research and Practice*, *37*, 319-332. doi:10.1080/10668920903530013

Yilmaz, K. (2011). The cognitive perspective on learning: Its theoretical underpinnings and implications for classroom practices. *Clearing House*, *84*(5), 204-212. doi:10.1080/00098655.2011.568989

York, K. (2010). *Critical thinking development in nursing: An integration of constructivist methodologies* (Doctoral dissertation). Walden University, Minneapolis, MN. Available from ProQuest Dissertations & Theses Full Text Database. (UMI No. 3396815).

Young, P.K. (2008). Toward an inclusive science of nursing education: An examination of five approaches to nursing education research. *Nursing Education*

Perspectives, *29*(2), 94-99. Retrieved from http://www.nlnjournal.org

Zentz, S. E., Kurtz, C. P., & Alverson, E. M. (2014). Undergraduate peer-assisted

learning in the clinical setting. *Journal of Nursing Education*, *53*(4), S4-S10.

doi:10.3928/01484834-20140211-01

Appendix A: The Project

A Three-day NCLEX-RN Preparation Seminar

The focus of this three-day NCLEX-RN Preparation Seminar is to develop the knowledge, skills, and attitudes that are needed for student achievement and NCLEX-RN success. This curriculum project will outline specific teaching/learning strategies to help students effectively prepare for, and complete their nursing program in order to meet graduation requirements to sit for the NCLEX-RN examination (see Appendix A). Graduate nurses must also pass the NCLEX-RN to achieve licensure as a Registered Nurse. Helping students' learn how to improve problem solving skills and critical thinking ability contributes to positive student outcomes. Graduate nurses who possess strong content knowledge and test-taking skills are the most prepared for the NCLEX-RN in order to pass it on the first administration. First semester student nurses must learn how to develop facilitative critical thinking, problem solving, and effective test taking strategies, as a natural progression during prelicensure that will help them successfully pass the NCLEX-RN examination. Without effectively learning how to study, or organize their study environment in a meaningful manner, they are more likely to experience poor test performance or additional anxiety during achievement exams.

In order to improve students' academic success, faculty members must understand where various components of introductory NCLEX-RN preparation curricula are being are being taught using effective teaching-learning modalities, adult learning strategies, and best practices to promote students' critical thinking skills that will help them successfully pass the NCLEX-RN. Primarily, these instructional strategies should include orientation to CSRP student tools NCLEX during the first semester with a

general focus on NCLEX-style test-taking strategies before the end of their first semester.

First semester student nurses will need to know how to successfully answer application and analysis level NCLEX-RN questions in all nursing courses and be well prepared for taking proctored online NCLEX-RN exams. Upon completion of this three-day NCLEX-RN Preparation Seminar each student will participate in a mini case study and critical thinking exercise and take a sample proctored online NCLEX-RN exam. This learning plan integrates a mini case study, including test taking strategies techniques including purposeful, critical thinking and practical problem solving methods over a 3-day period.

The goals at the end of the three-day seminar are for each student to learn critical thinking and problem solving strategies with the intent of integrating efficacious test-taking strategies to answer NCLEX-style questions. An on-site CSRP consultant will introduce students to their required CSRP student tutorial package as a primer to set the stage for what students should expect throughout the future curriculum. A strong foundation including interactive learning strategies facilitated by nursing faculty members using multiple examples demonstrating efficacious study skills, test-taking strategies, and discover personal learning preferences. CSRP consultation, multimedia, small group discussions, and a mini case study guided followed by an experiential exercise that outline the structure of the NCLEX-RN set the context as a powerful ally in the NCLEX- RN preparation process.

Learning Activity

First semester undergraduate students will incorporate multiple resources, critical thinking, and problem solving strategies to correctly answer NCLEX-RN test questions at

the application and analysis level NCLEX-RN in future nursing courses and be well

prepared for the NCLEX-RN exam.

Learning Objectives:

Upon successful complete of this NCLRX-RN Preparation Seminar students:

1.   Using the Internet, students will review the importance of using CSRP to

support their academic success and set up the required CSRP student tutorials.

2.   Using a mini case study, students will discuss and provide examples of the

use of critical thinking strategies (CT) and problem-solving strategies in

preparation for making clinical reasoning judgments.

3.   Students will work in small groups with the use of human patient

simulation (HPS) to reduce performance anxiety during evaluative situations.

4.   Students will employ NCLEX-RN-style test-taking strategies as a skill-

building tool in preparation for future NCLEX-RN exams.

The primary intention of the 3-day seminar is to enable first-semester

undergraduate students to improve their overall academic outcomes and optimize

NCLEX-RN success on the first administration. The ability of nursing faculties to attend

to innovative instructional practice should continually be primed because individuals'

vastly different combinations of learning style preferences can explain why there is no

single instructional method or resource that is effective for all students (Lum, Bradley, &

Rasheed, 2011). Toward this end, the CSRP can offer prelicensure students a systematic

way of attending to NCLEX-RN preparation using self-regulation, first by orienting them

to NCLEX-RN with relevant information thereby improving their academic achievement

and attitude toward learning.

Critical thinking dispositions and learning styles has been included in a plethora of nursing articles for both nursing students and nursing professionals (Suliman, 2006; Bjork, Dunlosky, & Kornell, 2013). Specifically, these authors suggested some adults often have a faulty mental model of how they learn and remember that make them more prone to experience poor test performance or mismanage their own learning. Thus, providing a structured orientation to NCLEX-RN preparation using variety of efficacious practice opportunities geared toward helping learners acquire critical thinking/problem-solving and test-taking skills will potentially lead to improvement in students' academic performance. As a direct result of these instructional strategies specifically planned to enhance first semester curriculum student learning is effectively supported. Using an instructor-led seminar, first-semester students will participate in a three-day NCLEX-RN preparation seminar using a combination of online instructional tools including CSRP NCLEX-RN, open-ended discussions about NCLEX-RN preparation strategies, and experiential exercises to help students integrate these concepts. Faculty will facilitate student-centered discussions daily during the seminar, giving student open-ended questions and, answers to help them identify prerequisite critical thinking and problem solving skills and test-taking strategies.

The required prerequisites require students enrolled in the first semester associate-degree nursing program (ADN) to use online modalities and participate on campus in a face-to-face seminar with faculty and peers. This seminar is open to 25 first-semester ADN students who are enrolled in the NECC nursing program and registered with CSRP. All students enrolled in this seminar are required to complete the learning tasks.

Conceptually, the mini-case study activity can accommodate small groups (5–10).

The projected class number is approximately 25 students. Two nursing faculty trained in simulation will facilitate the small group guided scenario-based simulations. Students would work individually and collaboratively in small groups (5-10) to analyze the mini case study and answer application, analysis, and synthesis-level NCLEX-RN questions. Students will assess their learning preferences to inform them about effective learning strategies and study skills by feedback mechanisms with CSRP and faculty on-site while they are doing it. Faculty members will guide students using open-ended question and innovative audio/visuals to increase their knowledge about effective instructional strategies that will help prepare them throughout the prelicensure period for academic and NCLEX -related success.

The seminar will run for three days to familiarize learners with a combination of cognitive and behavioral strategies from evidence found in the literature. Learning activity strategies will focus on effectively maximizing academic performance using self-reporting and feedback measures with CSRP tools, and minimizing poor study habits. Faculty will facilitate this seminar using a combination of didactic instruction on the topic of NCLEX-RN, open-ended discussions about critical thinking and problem-solving strategies in preparation for making clinical reasoning judgments. Students will complete the learning tasks by independently practicing NCLEX-RN preparation strategies daily for 3 days. The rationale for this time range will give students time to orient to the CRSP student package and practice the NCLEX-RN preparation techniques with guided practice as a primer for what additional NCLEX-RN preparation strategies as they progress through their nursing program.

Learning Activity

The online CSRP student toolkit will serve as an introductory level exercise to assist faculty and CSRP consultant to facilitate an interpretive NCLEX-RN practice. According to Mezirow and Associates (2000) " learning aimed at increasing our fund of knowledge, at increasing our repertoire of skills, at extending already establish cognitive capacities into new terrain serves the absolutely crucial purpose of deepening the resources available to an existing frame of reference" (p. 48-49). These conclusions support the need for faculty and students to be armed with knowledge and skills about what interventions work best, and how to intervene earlier rather than later. Thus, when students understand what NCLEX-RN preparation strategies are more likely to positively impact their performance during testing, they should respond appropriately with a repertoire of different combinations that will facilitate maximum academic performance. Faculty must be familiar with the online version of CSRP student toolkit components to effectively facilitate students learning. During the seminar, students will complete a critical thinking pretest and learning style inventory.

Several NCLEX-RN questions and related content that students are likely to be uncovered during lectures are introduced to show students how to utilize their fundamental textbooks in order to better understand what is expected of them to be prepared for class, clinical, and performance exams during their first semester. Students will receive the CSRP book bundle with their CSRP student package for guided practice to learn how to integrate concepts. The two required learning tasks require active participation in the CSRP orientation and the mini-case study an unfolding mini case

scenario method culminating in a high-simulation of effective problem solving skills and critical thinking techniques on the second and third day of the seminar.

Most students in the first semester lack prior exposure to the NCLEX-RN test plan. Several experiential test-taking and study strategies are taught including meeting face-to -face with nursing department tutors in the tutoring center, creating note cards on metric conversions, and practice analyzing virtual CSRP NCLEX-RN style questions and rationales. Students will participate in small group discussions after viewing the CSRP skill video. Students will discuss different practice challenges they might encounter and prioritize a list of possible solutions of care appropriate to the situation. Later, students will reenact direct care experiences during mock simulations to identify optimal strategies to promote the development of clinical judgment in beginning nursing students.

Mandatory attendance by all NUR 101/NUR 111 students and faculty should take place during the three-day seminar. During day 2 (the implementation phase), ongoing monitoring, and self- assessments would be occurring to determine if cognitive restructuring (new knowledge) and skill application took place. These strategies provide a more personalized approach between faculty and students' by weaving online CSRP content and related communication through the specific self-reporting CSRP student tools.

Instructor Notes:

1. Guide students to clearly identify CSRP tools that are helpful during the first semester.

2. Evaluate each student's ability to identify CSRP tools that are helpful during the first semester.

3. Provide support and feedback to encourage students to evaluate their personal learning preferences.

4. Assist students to design personalized note cards on metric conversions to use as an interventional approach to memorize metric conversions for future nursing examination.

5. Facilitate small group discussions encouraging students to analyze, and interpret the context during the simulation.

6. Provide support and timely feedback to students.

Practice And Feedback

The student learning activities that were developed for this three-day NCLEX-RN preparation seminar as an NCLEX primer about effective strategies they can consider using over multiple sessions rather than compressed over a short period of time. Students will incorporate NCLEX-RN preparation strategies throughout the nursing program in addition to utilizing the required CSRP student tools. This section will demonstrate how feedback can help faculty members develop instructional clarity for students.

Students will keep track of their NCLEX-RN test performance through CSRP feedback mechanisms and nursing course faculty members while enrolled in courses throughout each semester until the end of the program (Spaulding, 2008). Students will use the CSRP log in account information given to them at the beginning of the semester. Faculty will not provide students with optional add-on assignments in lieu of participation time due to the structured nature of seminar content flow and multiple learning opportunities to develop and achieve these goals. When NCLEX-RN exam preparation strategies are practiced regularly with the CSRP tools students should

become more aware of their learning style preference and effectively be in more control of their academic performance, and self-directedness to remediate sooner with tutors, or campus student services. This minimum time range for the seminar will give students enough time to experience preliminary NCLEX-RN exam strategies before choosing one learning strategy they recognize as most effective in consciously improving critical thinking and problem solving ability. In addition, during the first semester nursing faculty members can use a combination of efficacious instructional strategies for students at the beginning level, including human patient simulation case study exercises to help students acquire greater familiarity with NCLEX.

At the end of each seminar, the student will answer these follow-up wrap-up questions:

1. Since attending the seminar, to what extent have you added to your knowledge and understanding of the content as a result of the following activities? (NCLEX-RN preparation strategies).

2. Based on the NCLEX-RN strategies you learned about and practiced, to what degree did the CSRP toolkit enable you to effectively improve learning how to study, or organize your study environment in a meaningful manner?

Faculty members will tell students in advance they must complete mandatory anonymous Qualtrics Survey using self-reporting questionnaires and collect them within 1week of distribution through secured the nursing department's educational portals (see Appendix D). These websites require that students use a password for access to ensure students will submit and return the surveys. These open-ended questionnaires will focus on the stated learning outcomes.

Qualitative data findings collected from the surveys enables faculty members to give students timely feedback on their performance in addition to direct and indirect evidence of student learning during the online seminar. During the analysis phase for example, these data will shed light on the worth and value of the seminar. Specifically, faculty can ask whether learners were able to apply what they learned about NCLEX-RN preparation strategies and which CSRP student tools were most helpful during recent exams?

Teacher Responsibilities

The nursing faculty responsibilities will be that of facilitators and the CSRP Skills Module Series: Safety will act as the demonstrator. The CSRP Specialist will explain the goals of the demonstration and online audio/visuals at the beginning orientation with students. Simulation experiences preceding direct patient care experiences positively is linked to individual learning preferences because simulation helps students adapt to different clinical experiences when it is sequenced with the curriculum. It is the nursing faculty in the role as demonstrators to facilitate the students relate to the distinct steps of the learning activity and each step of the mock scenario is completed on the checklist (Sinclair & Ferguson, 2009;).

Student Responsibilities

Each student will learn about and perform experiential NCLEX-RN preparation exercises over three days using the CSRP tools for self- practice. These self-directed strategies will provide summative data to help students identify associated factors that may interfere with their personal performance during the prelicensure period. Lastly, the

seminar will culminate with students participating in an unfolding mock case scenario, and return summative self- evaluation questionnaires to the course faculty. Student nurses move between nursing education and the reality of work as a qualified nurse, therefore educators should give serious consideration about the nature of instructional impact on student outcomes (Stes, Min-Leliveld, Gijbels, & Van Petegem, 2010). Finally all student attendees' will receive another summative self- evaluation questionnaire during the following semester via email to ensure transfer of learning occurred (see Appendix E). These survey results can be used to further inform the nursing faculty and stakeholders about sequencing future seminars or enhance course curriculum.

Appendix B: Demographic Survey Sheet

Sex: _____ Male, _____ Female

Age:

_____ 18-25

_____ 26-35

_____ 36-45

_____ 46-55

_____ Over 55

Associate's Degree Graduation Conferred Date:

_____ 2009

_____ 2010

_____ 2011

_____ 2012

_____ 2013

_____ 2014

RN Licensure Verification: _____ Yes, _____ No

Verification of NCLEX-RN score on first administration: _____ Yes, _____ No

Personal NCLEX-RN candidate performance reports (CPR) ___ Yes, _____ No

Appendix C: Focus Group Interview Protocol

1. (Discover) Think back to all levels of prelicensure when you were studying for NCLEX preparation, what teaching-learning strategies were in place for you at the college that you felt helped you specifically to achieve positive outcome in the nursing program? Describe those strategies and what learning was achieved as a result of those strategies?

2. (Discover) What technology-related strategies should nursing faculty have available for students in multiple venues/situations in order to help students pass the NCLEX-RN the first time?

3. (Discover) What components of the nursing program helped students be better prepared for NCLEX-style tests that enabled them to correctly answer questions at the application and analysis level?

4. (Discover) Describe a moment of peak student NCLEX-RN preparation that was transformative for you, what was going on, and what do you feel made it so successful?

5. (Discover) What is your learning style preference and what teaching strategies help you learn best?

6. (Dream) Describe what your vision would be for the future NECC nursing program that would decenter the instructor and the delivery of pre-specified content and enable students to pass the NCLEX on the first administration.

7. (Dream) Imagine if you could keep three things about the nursing laboratory setting that engaged students on multiple levels and facilitated NCLEX success, what were they and why should the program keep them?

8. (Dream) Imagine you have fallen in a magic sleep as a student nurse and awaken five years later. The CSRP student package, is easy to use, and has relevant information about critical thinking skills and problem solving skills that has been optimized. What is the biggest change that has occurred?

9. (Design) Now envision a nursing program where the entire class passed the NCLEX-RN on the first administration. Tell that story, what did faculty and/or students do?

10. (Design) If you could design a new nursing course with content that focused developing problem solving and critical thinking in order to be prepared for successful completion of the NCLEX-RN? What would that look like?

11. (Deliver) How would you accomplish delivering this changed course?

12. (Deliver) How would you accomplish administering/managing this changed course?

Appendix D: Three-Day NCLEX-RN Preparation Survey

Default Question Block

This survey is being administered to assess your experience with the NCLEX-RN Preparation three-day seminar. The information you provide is confidential and will be reported in aggregate only. If you have questions about this survey or how the information will be used to improve future student experience, please contact Assistant Professor Lori Johnson extension 1234

This seminar was designed to orient student nurses in the development of critical thinking skills and problem solving skills utilizing the commercial standardized review packet (CSRP). Please rate your confidence in your ability to do each of the following:

	Very Confident	Confident	Somewhat Confident	Not Confident at All
Articulate the purpose and value of utilizing a variety of effective learning strategies, study, and test-taking skills	○	○	○	○
Identify components of the CSRP	○	○	○	○
Demonstrate elements of effective problem soling skills, critical thinking skills utilizing a simulated unfolding mini case scenario method	○	○	○	○

Please rate the extent to which each of the following services were of assistance during your seminar experience:

	Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied	Did Not Use this Service
CSRP Education Specialist	○	○	○	○	○
Technology Support Staff	○	○	○	○	○
Tutoring Center Staff	○	○	○	○	○

Please rate the feedback provided by instructors during the three-day NCLEX-RN preparation:

	Very Useful	Useful	Useless	Very Useless
CSRP Education Specialist	○	○	○	○
Nursing Faculty	○	○	○	○
Nursing Simulation Faculty	○	○	○	○

You indicated the feedback received during the three-day preparation seminar was useless or very useless. Please give us some more information to better assist students in the future.

```
┌──────────────────────────────────────────────┐
│                                              │
│                                              │
│                                              │
│                                              │
└──────────────────────────────────────────────┘
```

Please rate the extent to which each of the following describes your experience.

	Strongly Agree	Agree	Disagree	Strongly Disagree
The use of on-line instructional technology by the instructor(s) was effective and appropriate.	○	○	○	○
I understand the NCLEX-RN Test Plan.	○	○	○	○
I value passing the NCLEX-RN exam on the first administration.	○	○	○	○
I feel more prepared to use the required CSRP student toolkit at the beginning of my first semester.	○	○	○	○

Please rate the extent to which each learning activity was integrated in the seminar:

	Very Good	Good	Fair	Poor
CSRP orientation	○	○	○	○
Critical Thinking & Problem Solving Strategies	○	○	○	○
Study Skills	○	○	○	○
Learning Style Preferences	○	○	○	○
Tutoring Center Orientation	○	○	○	○

Please rate the physical facilities provided for this seminar (e.g. classroom/skills laboratory, simulation lab, space, computer lab, furnishings, etc).

	Very Good	Good	Fair	Poor
Nursing Classroom	○	○	○	○
Nursing Skills Laboratory	○	○	○	○
Simulation Laboratory	○	○	○	○
Computer Classroom	○	○	○	○

Is there other information that you think would be useful for future seminar planning?

Appendix E: Second Semester NCLEX-RN Preparation Survey

Default Question Block

This survey is being administered to follow up about your use of the commercial standardized review packet (CSRP) tools during your first semester in the Nursing program. The information you provide is confidential and will be reported in aggregate only. If you have questions about this survey or how the information will be used to improve future student experience, please contact Assistant Professor Lori Johnson at extension 1234

This seminar was designed to orient student nurses in the development of critical thinking skills and problem solving skills utilizing the CSRP tools. Please rate your confidence in your ability to do each of the following:

	Very Confident	Confident	Somewhat Confident	Not Confident at All
Articulate the purpose and value of utilizing a variety of effective learning strategies, study, and test-taking skills	○	○	○	○
Identify components of the CSRP	○	○	○	○
Demonstrate elements of effective problem solving skills, critical thinking skills utilizing a simulated unfolding mini case scenario method	○	○	○	○

Please rate the extent to which each of the following services were of assistance during your first semester:

	Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied	Did Not Use this Service
CSRP Education Specialist	○	○	○	○	○
CSRP Technology Support	○	○	○	○	○

Support

Technology Support
Staff at the college   ○   ○   ○   ○   ○

Tutoring Center Staff   ○   ○   ○   ○   ○

Please rate the extent to which each of the following describes your experience as of the end of your first semester in the Nursing program.

	Strongly Agree	Agree	Disagree	Strongly Disagree
The use of on-line instructional technology by the instructor(s) was effective and appropriate.	○	○	○	○
I understand the NCLEX-RN Test Plan.	○	○	○	○
I value passing the NCLEX-RN exam on the first administration.	○	○	○	○
I feel more prepared to use the required CSRP student toolkit at the beginning of my first semester.	○	○	○	○

You indicated you strongly disagree or disagree with one or more statements in the above question. Please provide some additional information below to assist program faculty in better serving students.

Since the CSRP orientation, how much time to you spend each week **in minutes** on each of the following NCLEX-RN preparation activities?

	0	10	20	30	40	50	60	70	80	90	100
Practice Quizzes											

In-Class Tests										
Practice Tests										

Please rate the extent to which the CSRP is helping you prepare for the NCLEX-RN exam at this stage in the nursing program.

Very Useful	Useful	Useless	Very Useless
○	○	○	○

If you answered useless or very useless, it would be helpful for us to understand why you feel this way. Please explain in the box below how we can better assist you to prepare at this stage of the nursing program.

Is there other information that you think would be useful for future seminar planning or assistance in the first semester of the program?