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Use of Critical Thinking Strategies by Nurse Educators

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Walden University

College of Health Professions

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Josephine Akintonde

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Walden University
2021

Abstract

Use of Critical Thinking Teaching Strategies by Nurse Educators

by

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MSc, School of Nursing, University of Maryland, Baltimore, 2000

BSN, School of Nursing, University of Maryland, Baltimore, 1994

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

New graduate nurses often lack the clinical decision-making skills that are essential for developing clinical competency. Critical thinking abilities are essential for nursing excellence and professional competency. However, little is known about nurse educators' techniques and teaching practices for developing students' critical thinking. The purpose of this phenomenological study, guided by constructivist learning theory, was to understand the lived experiences of nurse educators who used critical thinking teaching strategies in a baccalaureate nursing program to develop critical thinking skills in nursing students. Thirteen nurse educators from baccalaureate nursing programs were interviewed using open-ended questions. Interviews were transcribed and manually coded. Three themes emerged after data analysis. First, the nurse educators used a variety of teaching strategies to engage the students in learning, facilitate thinking, increase knowledge, and transfer theory to the clinical setting. Second, the selection for the strategies were based on the situation, student progression in the program, and multiple other factors. Third, participants identified the outcomes of using critical thinking teaching strategies as improved clinical competencies, program and student outcomes. The study results can be used to develop professional activities programs for nurse educators on the use of appropriate teaching strategies to facilitate students' critical thinking skills which will affect positive social change. Quantitative studies are recommended to examine whether there is a relationship among specific critical thinking teaching strategies, critical thinking skills, and learning outcomes among students in baccalaureate nursing programs.

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Dedication

This dissertation is dedicated to God who was my strength throughout the journey. To the loving memory of my parents, Cecilia and Dominic Ayanwale. My parents were my rock and my motivator. Thanks for inspiring me with the love of learning. I remember your statement Dad; your education is one of your greatest legacy. To my husband, Moses who supported my dreams and always encourage me to stay focus on my goals. To my three children, Bunmi, Joshua and Cecilia thank you for the encouragement while I was in school. To my two grandchildren Olumide and Indie thank you for being part of this journey. To all my extended family and professional colleagues' thanks for motivating me

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Chapter 1: Introduction to the Study

Critical thinking (CT) is an essential concept in nursing excellence and professional competency. The nursing education curriculum helps nursing students develop the CT abilities necessary for providing safe, quality, patient care. Developing students' CT abilities in the undergraduate nursing program is a constant challenge for nurse educators, nursing program directors, and hospital nurse administrators (Jung et al., 2017; Ward & Morris, 2016; Wu et al., 2015). In the 21st century, graduate nurses must be educated to provide safe, quality care within the current complex and ever-changing healthcare environment (Rajesh, 2017). The ability to analyze patient data and think critically is essential for providing quality healthcare and increasing patient satisfaction. Nurse educators have a professional responsibility to prepare students to pass the licensure examination and develop competence for clinical practice.

An evaluation criterion for a nursing program is the graduate students' ability to demonstrate CT skills that promote positive patient outcomes and quality patient care (Adib-Hajbaghery & Sharifi, 2017). Nurse educators, therefore, must implement the appropriate CT strategies to facilitate the development of students' CT abilities. An understanding of nurse educators' perceptions of the success of the teaching strategies used to promote students' CT and the reason for selecting that strategy will help nurse educators choose the most efficient teaching strategies to facilitate students' development of CT abilities.

The results of this study have the potential to guide curriculum development; the use of Critical Thinking Teachings Strategies (CTTS) by nurse educators will promote

students' self-confidence, as well as their ability to pass the licensure examination and provide safe quality care for healthcare consumers (Brown, 2014). Increasing patient safety and quality care are positive indicators for healthcare institutions (Chenjuan, Shin & Jingling, 2018). When nurse graduates demonstrate better CT decision-making skills in the clinical setting, there is an increased potential for making fewer nursing care errors, which can result in reduced operating costs for healthcare institutions. In this chapter, I discuss the background of the study, problem statement, purpose, research question, theoretical framework, nature of the study, and significance.

Background of the Study

CT in nursing has been widely discussed in the literature for the past decade. It was first debated in the nursing literature in 1980, and then in 1990, the American Philosophical Association (APA) Delphi Research Project presented a conceptual definition of CT in nursing (Carter, Creedy, & Sidebotham, 2016). The American philosophical Association expert panel described CT in nursing as a purposeful, deliberate, self-regulatory judgment, which results in the ability to interpret and analyze information in making a logical decision (Facione, 1990). CT in nursing education has been associated with clinical reasoning, clinical judgment, nursing process, and problem-solving (Sullivan, 2012). CT abilities are essential for providing quality, safe care, and promoting patient s' health outcomes.

In 1992, the National League for Nursing (NLN) and the American Association of College of Nursing (AACN) recommended that nursing programs include practical teaching strategies that promote the development of CT skills in the nursing curriculum.

The core competencies required for nurse educators focus on facilitating the development of students' CT skills and the application of teaching strategies supported by educational theory (NLN, 2011). Nurse educators, therefore, must be competent in applying innovative teaching strategies to promote students' CT abilities.

Facilitating the development of students' CT abilities is a continuous challenge for nurse educators, nursing program directors, and hospital administrators (Jung et al., 2017; Ward & Morris, 2016; Wu et al., 2015). Graduate nurses often lack the clinical competency skills necessary for providing quality patient care (Carvalho et al., 2017; Del Bueno, 2005; Hsieh & Hsu, 2013; Munteen, 2015; Van Rooyen et al., 2013; Wahl & Thompson, 2013). Munteen (2015) reported that 80% of graduate nurses lack clinical decision-making skills for clinical practice. Lack of CT skills results in adverse patient outcomes that include patient falls, medication, and other patient care errors (Gaffney et al., 2016). The need to incorporate effective teaching strategies to facilitate students' CT and clinical competencies cannot be overemphasized.

According to the literature, the teaching strategies used by nurse educators to promote student learning include problem-based learning, concept mapping, case studies, lectures, and questioning (Carvalho et al., 2017; Oliveira, Diaz, Carbogim, Rodrigues, & Puschel, 2016). However, little is known about nurse educators' effect on students' CT (Raymond, Profetto-McGrath, Myrick, & Streat, 2017). Consequently, there is a need in nursing education to understand the teaching strategies used most often by nursing educators to best stimulate the development of students' CT abilities (Brown, 2014).

In a quasi-experimental study, Brown (2014) examined the relationship between an intervention CT program and student performance on the CT Health Education System Incorporated (HESI) examination. Data were collected from two groups of nursing students; those who did not take the CT course (Group A) and those who took the CT course (Group B). Statistical analysis of the data indicated that students in Group B scored significantly higher than the students in Group A. Brown recommended that future qualitative studies be conducted to explore faculty perceptions of CT teaching strategies and educators concerns about facilitating student learning to promote their analytical thinking abilities.

In a systematic review of the literature, Carvalho et al. (2017) evaluated teaching strategies that were used to promote CT in an undergraduate nursing program. The six studies selected for review were assessed with a quality classification tool for experimental studies. According to the review, the teaching strategies commonly used by the nurse educators included problem-based learning (PBL) lecture, simulation, reflective writing, documenting student, and concept mapping. PBL teaching strategy was identified as a commonly used teaching strategy to promote the development of students' CT in an undergraduate nursing program. The learners could collect data, interpret information, think logically, and provide a plan of care for the patient when the PBL approach was implemented. Additionally, PBL facilitates the transfer of theoretical knowledge to clinical settings, and enhances student confidence in providing care to patients (Carvalho et al., 2017). The authors recommended that future methodological

studies be designed to investigate which teaching strategies have the greater value for promoting the development of students' analytical thinking abilities.

Linthacum (2011) also identified teaching strategies that nurse educators used to promote critical thinking abilities among nursing students. These were similar to the concept identified by Carvalho et al. (2017) with a few exceptions that include simulation and nursing process. Future studies need to be conducted to determine the teaching strategies with greater value, the rationale for their selection, and how and why? the strategies were used (Linthacum, 2011).

In a study by Oliveira et al. (2016), a PBL teaching strategy was also statistically significant for developing CT abilities in the undergraduate nursing student when compared to the lecture. Oliveira recommended that future studies based on the theoretical and conceptual model of learning and teaching be conducted to evaluate the development of CT among nursing students. Although nurse educators use different teaching strategies to facilitate the development of students' CT in their curriculum, the need to investigate which of the teaching strategies best promote the development of students' CT abilities and the reason for their selection is well documented in the literature (Alamrani, Alammar, & Alqahtani, 2018; Carter et al., 2016; Linthacum, 2011).

This study on the lived experience of nurse educators who used critical teaching strategies support curriculum development by providing an in-depth understanding of the reason for a selected teaching strategy and how the strategy facilitates the development of students' CT. Scheffer and Rubenfeld (2000) developed an NCS that identified 17 dimensions (ten habits of mind and seven cognitive skills) that best describe CT

behaviors demonstrated by students when using effective teaching approaches. The consensus statement was developed using the Adelpi technique with an international group of nursing experts (Scheffer & Rubenfeld 2000). This consensus statement, developed by expert nurses, provides a common language to describe and categorize behaviors that demonstrate CT.

Nelson (2017) described different types of CT teaching methods used by nurse educators and aligned the teaching strategies with the CT behaviors demonstrated by the student when a selected teaching strategy was implemented. Faculty are responsible for creating the learning environment that facilitates the development of CT, the use of habit of mind, cognitive skills, and for helping the student apply CT in their lifelong learning (Nelson, 2017). Nelson reported the lack of a reliable assessment tool to evaluate NCS standards and suggested that nurse educators should develop such a tool that could be used to support best teaching strategies for the development of student CT.

According to the literature reviewed, limited studies reviewed the combination of the best teaching strategies and the rationale for using the selected strategy (Horntvedt, et al, 2018). There is a need to investigate further which of the teaching strategies used by nurse educators best promotes the development of student CT and the rationale for using the selected strategies. This qualitative study on the lived experiences of nurse educators who used CT teaching strategies in a baccalaureate nursing program could result in an in-depth understanding of the CT strategies used by nurse educators and of the teaching strategies they believe are most effective in facilitating the development of students' CT skills. Additionally, the study sought to examine faculty's reasoning for selecting each

strategy and to compare the educator's perception of student behavior with the NCS of CT.

Problem Statement

Healthcare employers reported that 80% of graduate nurses lack the clinical decision-making skills for clinical practice (Munteen, 2015), skills that are essential for developing clinical competency (Andreou et al., 2014). Nursing programs are challenged with students limited clinical experiences that prepare them for providing care in the complex healthcare environment (Garner et al., 2013; Wighus & Bjork, 2018). (CT) is essential for nursing excellence and professional competency and it is an expected outcome of baccalaureate nursing programs (American Association of Colleges of Nursing, 2017). The lack of CT skills results in adverse patient outcomes that include patient falls, medication, and other patient care errors (Gaffney et al., 2016).

In addition to preparing the student to pass the licensure examination, nurse educators have a professional responsibility for developing students' competence for clinical practice. Clinical competence refers to the student's ability to analyze patient data, implement the appropriate care, and evaluate the patient's response to nursing care (AACN, 2017; Chen, et al., 2018). Developing the undergraduate nursing student's CT abilities is a continuous challenge for nurse educators, nursing program directors, and hospital nurse administrators (Wu et al., 2015; Jung et al., 2017; Ward & Morris, 2016). To reduce the risk associated with new graduate nurses leaving the program with limited CT abilities, the curriculum must prepare the student for both the professional role and clinical competency (Schrock & Benko, 2015; Ward & Morris, 2016). Clinical judgment

skills are also an essential concept for professional accountability. The changes in the healthcare system, the consumer demand for quality healthcare, and an increase in patient acuity support the need for developing competent nurses for the healthcare consumer (Duff, 2013; Hickey et al., 2014).

Nurse educators use different teaching strategies that include problem-based learning, concept mapping, case studies, lectures, and questioning to promote student learning (Carvalho et al., 2017; Oliveira et al., 2016). However, little is known about nurse educators' effect on students' CT abilities. (Raymond et al., (2017). Consequently, there is a need to understand the teaching strategies used most frequently by nursing educators in order to best develop students' CT abilities (Brown, 2014). Associate degree nurse educators identified simulation, problem-solving, reflection, and problem-based learning as the common CT teaching strategies that promote students' CT abilities (Linthicum, 2011; & Nelson, 2017). Linthicum (2011) discussed the need for future research to evaluate which teaching strategies best stimulate the development of student CT abilities.

Brown (2014) suggested the need to interview faculty to collect and analyze narrative data that may unveil different patterns of teaching that promote student CT abilities. In a systemic review of CT in nursing education, Chan (2013) analyzed 17 studies that identified (a) an inconsistent definition of CT and (b) the need to explain the educator's perspective towards critical thinking. Nelson (2017) described different types of teaching strategies used by nursing educators and related such teaching strategies to specific CT behaviors identified by the 17 NCS dimensions demonstrated by the student.

Additionally, there are calls for a paradigm shift and the inclusion of innovative teaching strategies in nursing education to promote the development of students' CT abilities (Bouchaud, Brown, & Swan, 2017; Sharma, 2017). However, nurse educators use different teaching strategies to facilitate the development of student CT in their curriculum. It is essential to investigate which of the teaching strategies best promotes the development of student CT abilities and why they are selected, and studies that could reveal different patterns of teaching that promote nursing student CT abilities (Brown, 2014).

Purpose of the Study

The purpose of this qualitative interpretative phenomenology study was to understand the lived experiences of nurse educators who used CT teaching strategies in a baccalaureate nursing program to develop CT skills in nursing students. Little was known about nurse educators' effect on students' CT abilities (Raymond et al., 2017). Qualitative data analysis was used to understand nurse educators' perceptions of success of the teaching strategies they used to promote CT abilities in their students and their rationale for using the selected strategies.

Research Question

This study was guided by the following research question: What are the lived experiences of nurse educators who teach in a baccalaureate nursing program as they attempt to develop CT abilities in their students? The following guiding questions were used during the interviews:

1. What does critical thinking teaching strategies mean to you?

- (a) Please describe the critical thinking teaching strategies you have utilized in developing the critical thinking abilities of your students?
 - (b) What are some of your experiences in using this teaching strategies.
2. Discuss the rationale that supports the selection of the CT teaching strategies you utilize to develop the critical thinking abilities of your student?
- (a) Describe the nurse educator's perception of the success of the teaching strategies used to promote critical thinking abilities in the students.
3. What teaching strategies do you believe nurse educators use to promote student critical thinking and decision-making skills?
- (a) Which of the teaching strategies do you believe best facilitated the development of your student critical thinking abilities?
 - (b) How will you describe critical thinking abilities?
 - (c) What are some of the characteristics of a student demonstrating critical thinking abilities for clinical decision making?
 - (d) What do nurse educators' beliefs are the most important outcomes of using critical thinking teaching strategies?
 - (e) What do nurse educators perceive were the cognitive and affective skills that contribute to clinical competency?

Conceptual Framework

Constructivism learning theory (CLT) is the conceptual framework that guided the study and provided a lens for viewing the problem ((Samuel et al., 2020). According to Mensah (2015), CLT evolved from the works of early pioneers in cognitive learning

theories, such as Dewey (1938), Piaget (1970), Vygotsky (1978), and Bruner (1996). CLT is rooted in assumptions about learners and how they acquire knowledge. The fundamental concept precept of constructivism is that it is a learning process in which meaning is constructed and interpreted from the perspective of the meaning or sense that people make of their experience (Mosca, 2017). For example, Moallem (2001) posited that it is the learner who constructs knowledge, which does not exist separate from the learner. Jonassen et al (1995), postulated that the learner must be engaged so that the knowledge he or she constructs is active, and can be applied in different contexts and settings.

There are many theoretical perspectives related to constructivism (Merriam et al., 2007; Shudak, 2018), but social constructivism (Berger & Luckman, 1966) was the perspective chosen for the study because it answers questions about the basis of knowledge, the nature of reality, and the sense that people make of their experiences. Social constructivism is rooted in sociological and psychological theory, and its methodologies are influenced by many philosophical and scientific disciplines, including phenomenology (Slater, 2017).

McEwin and Willis (2014) described the operating process for CLT as assimilation, accommodation, and constructivism. Assimilation is the process of integrating new information into the cognitive center. Accommodation is the learner's ability to incorporate a new concept in constructing meaningful knowledge (Ormrod, 2012). In the constructivist learning environment, the role of the educator is to facilitate

the types of social environments in the classroom or clinical settings that stimulate learners to construct new knowledge through practice (Buckley et al., 2015).

The suitability of CLT in nursing education to explain the perspectives of learners and educators has been recognized in the seminal and contemporary literature. For example, according to Duffy and Cunningham (1997), in the constructivist teaching and learning model, the nurse educator supports the construction of new knowledge by using teaching strategies that promotes meaningful learning that can be used in different situations. Thomas et al (2014) proposed that, in evidence-based clinical decision-making, CLT explains clinicians' integration and application of new knowledge. In the learning environment of constructivist theory, the nurse educator facilitates meaningful learning by implementing CT teaching strategies that keep the student engaged. Students' active engagement promotes the development of analytical thinking abilities, which students can then apply effectively in clinical settings.

Nature of the Study

The nature of the study is post-positivist, in which subjective qualitative methods are used to gain deep insights into the problem. Specifically, the study is guided by an interpretive phenomenological design (Heidegger, 1927). Qualitative designs are supported by epistemological and ontological assumptions about how knowledge is acquired and the nature of reality (Cunningham, 2014). This type of research is appropriate for eliciting implied knowledge, subjective comprehension, and subjective interpretations, and for delving, in depth, into complex situations and processes (Lincoln & Guba, 1985); it is valued in educational research (Maxwell, 2018). The methods used

by qualitative researchers allow the researcher to interact with the study participants to obtain insight into their subjective realities about the phenomenon being studied, and to construct new knowledge from the data collected (Ravitch & Carl, 2016). The role of the researcher as the key instrument in the research and data collection occurs in a natural setting (Ravitch & Carl, 2016). To preserve the integrity of the research and to minimize bias, the researcher reduces, bridles, brackets or suspends her preconceptions about the research to keep her opinions and personal values from influencing the study (Shudak, 2018). Data are collected in the form of words or narrative descriptions, not in numerical form as in quantitative research (Shudak, 2018).

As a type of qualitative research, phenomenology is appropriate for educational research, and the basic unit of analysis is the phenomena, not the participants (Shudak, 2018). According to Shudak, phenomena are those things that we come to know through consciously experiencing them. For this study, the phenomena are the lived experiences of baccalaureate nursing instructors in how they experience teaching CT in the classroom. The goal of phenomenological research is to explore the participants' understanding and lived experiences of the subject matter (Shudak, 2018). In a phenomenological study, the data obtained from the participants help to identify common themes and provide relevant suggestion for the problem being investigated (Creswell, 2014). The population of interest for the study were nurse educators. Purposive sampling methods were used to draw from the population a sample of nurse educators with at least three years teaching experience in a baccalaureate nursing program. Open-ended questions were used to collect data in a narrative form. This qualitative study generated

thick, rich data on nurse educators' lived experiences of the CT teaching strategies they deemed effective in developing their students' CT abilities.

The data collection method was via telephone using semi structured interviews. Data were collected from nurse educators who had a minimum of three years teaching experience and were involved in mentoring or supervising student in a clinical setting. According to Ravitch and Carl (2016), the characteristics and values of the qualitative interview were relational, contextual, non-evaluative, person-centered, partial, subjective, and non-neutral, and the in-depth collected data generated thick, rich descriptions of the participants' lived experiences. These responses were audio recorded and documented with permission from the participants.

Definitions

Critical thinking: CT in nursing is the application of higher-order cognitive skills that include analysis, analysis, conceptualization, and evaluation; the ability to reflect and make the logical and appropriate decision (Papp et al. 2014)

Nurse educator: Nurse educators are individuals with a graduate-level academic preparation that serves as an instructor, and have experience in a clinical specialty. A nurse educator is required to be competent in clinical practice, curriculum development, teaching strategies and evaluation methods (Booth et al.,2016).

Critical thinking teaching strategies: CT teaching strategies are the teaching methods nurse educator uses in facilitating activity learning and the development of student CT skills.

Critical thinking skills: CT skills in nursing is the ability to apply cognitive skills of analyzing, information seeking, interpreting, logical reasoning, predicting, and transforming knowledge in a given situation (Agbedia & Ogbe, 2014). Scheffer and Rubenfeld (2000) suggested that nurse educators and researchers use these skills in promoting CT abilities among nursing students.

Clinical competency: The term, clinical competency, means a group of related skills, knowledge, and attitudes associated with a required performance that can be measured against a professional standard (Burke, Sayer, Morris-Thompson, & Marks-Maran, 2014). In this study it refers to newly graduate nurses to effectively apply psychomotor, cognitive skills, communication and safety skills in providing quality care for the clients.

National Consensus Statement (NCS) on Critical Thinking in Nursing: This is the term applied to describe the outcome of the panel of experts that proposed to define CT in nursing education and nursing practice. The NCS has 17 dimensions: 7 cognitive skills, and 10 habits of mind (Scheffer & Rubenfeld, 2000). The cognitive skills include analyzing, transforming knowledge, predicting, applying standards and logical reasoning, discriminating and information seeking. The terms used to describe the habit of mind are preserving, open-mindedness, flexibility, confidence, creativity, inquisitiveness, reflection, intellectual integrity, contextual perspective, and intuition.

Assumptions

In conducting the study, I assumed the following: (a) CT is prerequisite for providing safe, quality care, (b) nurse educators' teaching philosophy supports the use of

CT teaching strategies, which, in turn, facilitate the development of students' CT, and (c) participants responded truthfully to the interview questions.

Scope and Delimitations

The scope of this study is to understand the lived experiences of nurse educators who used CT teaching strategies in a baccalaureate nursing program to facilitate student development of CT skills. The population was nurse educators who had a minimum of 3 years of teaching, and were involved in mentoring or supervising student in clinical settings. Nurse educators from associate degree and diploma nursing programs were excluded, because their curriculum and population were different from the BSN programs. The nurse educators were from the East Coast region of the United States. The findings from this study may not be generalized to nursing programs in other regions of the United States.

Limitations

Limitations are weaknesses of the study design that may influence the result of the study (Creswell, 2014). A significant limitation to the study is the use of purposeful sampling of nurse educators from baccalaureate programs in a region with different types of nursing programs; this is not a representation of the population. However, the participants responded truthfully to the interview questions.

I am a novice researcher, with limited experience in analyzing qualitative data. My dissertation committee members mentored me through the process of completing the study. Stepp (2019) stated that the researcher's familiarity with the phenomenon of interest often makes qualitative data interpretation susceptible to bias. Stepp (2019) stated

that the researcher's familiarity with the phenomenon of interest often makes qualitative data interpretation susceptible to bias. I used reflexivity continually during data collection and analysis to limit the extent to which my limited experience, bias and beliefs influence the process.

Significance

The graduate nurse lacks effective decision-making skills for clinical practice (Munteen, 2017). CT abilities are important for developing clinical decision-making skills and providing safe, quality care. To promote excellence in professional practice, the National League for Nursing (NLN, 2017) emphasized the inclusion of CT learning activities across the curriculum in preparing the student for clinical competency. Therefore, nurse educators must be competent in applying innovative teaching strategies to develop students' CT abilities. However, what is not clearly identified in the literature are the teaching pedagogies that best support the development of students' CT, the rationale for any teaching strategy, and the nurse educators' beliefs about the effectiveness of the teaching strategies they use.

The (NCS) identified 17 dimensions that can be used to describe students' demonstration of CT behaviors. The results of this study have the potential to add to the literature by identifying the extent to which the students' behaviors, as reported by faculty, resulting from the CT teaching strategies faculty used, are consistent with the NCS 17 dimensions. This study sought to fill this gap in understanding by exploring nursing educators' lived experience of the CT teaching strategies used in the classroom. It identified the faculty's rationale for using the selected strategies, their perception of the

efficacy of the strategies, and the extent to which the students CT behaviors identified by the faculty were congruent with the 17 dimensions of the NCS.

The study has the potential for positive social change for four groups: nurse educators in baccalaureate nursing program, students, healthcare institutions, and consumers. The study could contribute to an in-depth understanding of how nurse educators define CT and how this understanding influences their choice of CT teaching strategies. Baccalaureate nursing instructors and their students could benefit if the results show which teaching strategies are the most efficacious in developing students' CT behavior in the clinical setting; these could be used in the development of a nursing curriculum. The result could also be used to develop education programs to increase faculty understanding of the appropriate CT teaching strategies that enhance students' cognitive and affective abilities to achieve desired learning outcomes. Engaging the student in active learning strategies will promote the students' self-confidence, the ability to pass a state licensure examination, and provide safe, quality care for healthcare consumers (Brown, 2014). Increasing patient safety and quality care are positive indicators for measuring health care outcomes (Chenjuan et al, 2018). When nurse graduates demonstrate better CT decision-making skills in the clinical setting, there is increased potential for making fewer nursing care errors, and thus reduced operating costs for the healthcare institution. In addition, findings from this study could be used to design studies that examine the relationship among specific teaching strategies used by educators, the CT behaviors of their students, and learning outcomes, such as increased Grade Point Average (GPA) and CT behaviors.

Summary

Chapter 1 presented the background of new graduate student nurses' lack of CT skills to function effectively. There is a constant challenge for the nurse educator in developing students' CT abilities, which are essential for making effective clinical decisions, providing safe, quality care, and promoting health outcomes. The radical national call for the application of innovative teaching strategies supports the development of student CT strategies before graduation and the ability to transfer theoretical concepts to the clinical situation.

The rapid change in the current, complex field of healthcare requires that graduate nurses become skilled in making an appropriate clinical decision and providing safe care. This study explores the lived experiences of nurse educators who used CT teaching strategies in a baccalaureate nursing program to develop the students' CT abilities. An understanding of the nurse educator's perception of the success of the teaching strategies used to facilitate the development of student's CT abilities and the rationale for using the selected strategy were investigated. CLT was the framework that guided the study and provided the lens through which the study was viewed. The research questions were developed to maintain alignment with the qualitative study methodology. The study has the potential for positive social change for four groups in particular: nurse educators, students, healthcare institutions, and consumers.

In Chapter 2, I cover the conceptual framework and a literature review of key variables of the study, which include CT teaching strategies, nurse educators, and clinical competencies.

Chapter 2: Literature Review

Healthcare employers reported that 80% of graduate nurses lack clinical decision-making skills for clinical practice (Munteen, 2015). These skills are essential for developing clinical competency (Andreou et al., 2014). The lack of CT skills results in negative patient outcomes that include patient misdiagnosis, incorrect administration of medications, and other errors in patient care (Gaffney et al., 2016). Some nursing programs do not provide enough clinical experiences for their students to prepare them for providing care in the complex healthcare environment (Garner et al., 2013; Wighus & Bjork, 2018). To help students learn, nurse educators use different teaching strategies, including problem-based learning, concept mapping, case studies, lectures, and questioning (Carvalho et al., 2017; Oliveira et al., 2016). But there are few discussions about nurse educators' beliefs about the teaching strategies they use and their impact on student CT abilities (Raymond et al., 2017). Thus, there is a need to understand the teaching strategies used most frequently by nursing educators to best stimulate the development of students' CT abilities (Brown, 2014).

The purpose of this interpretative phenomenological study was to understand the lived experiences of nurse educators who used CT strategies in a baccalaureate nursing program to develop CT skills in nursing students. The study sought to understand nurse educators' perceptions of the success of the teaching strategies they used and the rationales for choosing them

In Chapter 2, I discuss the literature search strategy, constructivist theory, and the research literature that supports nurse educators' use of CT teaching strategies in facilitating the development of new graduate nurses CT abilities.

Literature Search Strategy

The databases were used for the literature search: Academic Search Complete, EBSCO, Education Research Complete, Science Direct, ERIC, ProQuest SAGE, Google Scholar, CINHAL Plus, Medline, and Dissertation and Theses at Walden University. The following inclusion criteria were used: peer-reviewed, full text, and English only. The majority of the studies cited were published within the past 5 years. The following keywords were used: *critical thinking, teaching strategies, nurse educator, clinical competencies, nursing education, critical thinking, nursing education, and National Consensus Statement (NCS) for critical thinking.*

Conceptual Framework

The theoretical and the conceptual framework are guiding principles for the study. According to Eisenhart (2014), the theoretical framework is an organized concept that supports the study, originating from theory and constructed with established phenomenon and relationships. The investigator selects the method that best supports the research problem. For this study, I chose the (CLT) as the conceptual framework and the lens for viewing the problem. According to Mensah (2015), the CLT evolved from the works of early pioneers in cognitive learning theories such as by Dewey (1938), Piaget (1970), Vygotsky (1978), and Bruner (1996). The CLT is rooted in assumptions about learners and how they acquire knowledge. The fundamental precept of constructivism is that it is

a learning process in which meaning is constructed and interpreted from the perspective of the meaning or sense that people make of their experience. For example, Moallem (2001) posited that it is the learner who constructs knowledge, which does not exist separate from the learner. Jonassen, Davidson, Collins, Campbell, and Haag (1995) postulated that the learner must be engaged so that the knowledge they construct is not passive, and can be applied in different contexts and settings.

There are many theoretical perspectives related to constructivism (Merriam al., 2007; Shudak, 2018); however, social constructivism (Berger & Luckman, 1966) will be the particular framework for the study as it can be used to acquire answers to questions about the basis of knowledge, the nature of reality, and the sense that people make of their experiences. Social constructivism (SC) is rooted in sociological and psychological theory, and its methodologies are influenced by many philosophical and scientific disciplines, including phenomenology (Slater, 2017). McEwin and Willis (2014) describe the operating process for the CLT as assimilation, accommodation, and constructivism. Assimilation is the process of integrating new information into the cognitive center. Accommodation is the learner's ability to incorporate a new concept in constructing meaningful knowledge (Ormrod, 2012). In the constructivist learning environment, the role of the educator is to facilitate the types of social environments in the classroom or clinical settings that stimulate learners to construct new knowledge through practice (Buckley, Archibald, Hargraves, & Trochim, 2015).

The suitability of the CLT in nursing education to understand the perspectives of learners and educators has been recognized in the seminal and contemporary literature.

For example, according to Duffy and Cunningham (1997), in the constructivist teaching and learning model, the nurse educator supports the construction of new knowledge that promotes meaningful learning, which is used in different situations.

In evidence-based clinical decision-making, CLT is used to gain an understanding of clinicians' integration and application of new knowledge (Thomas et al., 2014). In the constructivist theory learning environment, the nurse educator facilitates meaningful learning by implementing CT teaching strategies that keep the student engaged. Students' active engagement promotes the development of student analytical thinking abilities, which they can apply effectively in clinical settings.

The constructivist learning theory is applicable to this study because nurse educators implement teaching strategies that support the students' learning abilities for constructing new knowledge and development of CT abilities. In the assimilation stage, the learner integrates new information into the preexisting framework of knowledge (Piaget, 1999). In the accommodation stage, the learner creates a mental image of the new information. The student's ability to construct new knowledge, transfer theoretical concepts to clinical situation, and provide quality safe patient care is a positive indicator that support the development of CT abilities (Stinson, 2017).

In a qualitative case study, Loy (2014) examined the teaching strategies used by nurse educators in the classroom and in clinical settings to promote nursing student CT abilities. Newly graduate nursing students must be able to think critically and make effective clinical decisions while providing care to their patients. The constructivist learning theory was the framework for the study. In a constructive learning environment,

the instructor as the learning facilitator creates a feeling of trust and caring that allows the student to discover principles by themselves (Loy, 2014). The constructivism learning process transforms the student from a passive learner into an active learner. The study findings reported the use of different teaching strategies used by nurse educator in the classroom and the clinical settings. However, evaluations for clinical learning assessment focus on the nursing process and psychomotor skills. The study implemented and recommended a professional development workshop for educators to improve the evaluations tools by developing the clinical learning objectives to aligns with the course and program objectives (Loy, 2014). Additionally, the themes from the data collected from the nurse educators revealed the promotion of student CT abilities. The student's abilities to analyze patient data, present an understanding of the physiology of the body system, and recall of patient signs and symptoms were evidence to support the student development of CT abilities. (Loy, 2014).

Ellis (2015) used a quantitative study to examined the role of nurse educators' self-perception, and their belief in the use of learner-centered teaching strategies in the classroom. The study findings indicated that nurse educators who believed in learner-centered teaching strategies were more likely to implement student-centered teaching activities in the classroom. In the constructivist learning environment, the students can think critically about the content and reflect on the learning process. The student also becomes invested in their learning, which results in a deeper understanding of the subject. (Ellis, 2015). The CLT has been widely adopted to support both didactic and clinical

learning activities in nursing education; the learners are engaged in a self-reflective practice that promotes the development of CT abilities (Elmers, 2016).

Elmers (2016) explored the use of innovative teaching strategies by nursing faculty to promote active learning and problem-solving among nursing students. The constructivist learning theory was the framework for the study. The learner in the constructivist learning environment creates new knowledge by building on previous knowledge relating to the subject, which further promotes CT skills (Denton, 2012). The CLT enhances the learner's ability to engage in self-directed learning and practice self-reflection that promote the development of student CT abilities (Elmers, 2016).

The data analyses from Elmers (2016) study identified themes and sub- themes that supported the use of innovative teaching strategies, active learning and problem solving as active components of the constructivist learning theory. The ability to reflect on the learning process promotes the development of student CT abilities. Elmers (2016) supported the evidence that constructivist principles can be used to promote active learning and problem-solving abilities among nurse nursing student which further develops their CT skills. The study results indicated how the constructivism learning theory (active learning and problem solving) facilitates the connection between student and faculty role changes, innovative with purpose and reflection on learning (Elemers, 2016).

Literature Review: Key Variables

Critical Thinking

The history of CT in education can be traced back to the work of Socrates (Von-Collin- Appling & Giuliano 2017). Socrates used the principles of questioning and thinking to educate his students about how answers are used to probe for further question resulting in a deeper understanding of the concept that can be applied to a new situation (Von-Collin- Appling & Giuliano 2017). The concept of CT was further refined by Dewey (1938) who rejected rigid curriculum and emphasized the importance of learning through experiences. Dewey promoted the idea that educators should provide the student with valuable learning experiences and connect learning to real-life experiences. Dewey (1938) believed that learners who are actively engaged become lifelong learners and contribute to society. By the beginning of the 1980s, the term CT became a common theme in nursing and among the healthcare organization (Linthacum, 2011). The Joint Commission on Accreditation of Healthcare Organizations (JCAHO) was the first to develop the mandatory competency assessment and documentation for healthcare organization (Rubenfeld & Scheffer, 2006). Many researchers contributed to the development of critical thinking; a notable contribution was the America Philosophical Association (APA).

The APA included a panel of 46 experts from different disciplines who exchanged ideas from 1988–1989 on the essential traits of critical thinking. The panel agreed on a consensus statement for CT to be purposeful, self-regulatory judgment which result in interpretation, analysis, evaluation, or contextual considerations upon which the

judgment is based (Rubenfeld & Scheffer, 2006). The APA panel also identified the cognitive skills that are essential for the development of CT skills; these include interpretation, analysis, evaluation, explanation, inference, and regulation.

The APA definition of CT has been widely used by most discipline, including nursing. Facione (2015) questioned the applicability of APA definition of CT to nursing because nurses were excluded from the APA panel experts. Rubenfeld and Scheffer (2006) responded to this concern and conducted a Delphi study to define CT in nursing. An international group of expert nurses from nine countries participated in the study. The panel experts developed the NCS that identified and defined the 17 dimensions of CT in nursing. The 17 dimensions are 10 habits of mind (affective components) and seven cognitive skills (the cognitive component). The cognitive components include analyzing, applying standards, discriminating, information seeking, logical reasoning, predicting, and transforming knowledge. The affective components included (a) contextual perspective, (b) creativity, (c) confidence, (d) flexibility, (e) intellectual integrity, (f) inquisitive, (g) open-mindedness, (h) intuition, reflection, and (i) perseverance (Rubenfeld & Scheffer, 2006). The NCS is a common language that describes CT in nursing and is used by nurses, nurse educators, and nursing students to support the concept of CT. The nursing education accreditation organization supported the NCS common language for critical thinking. In 2003, the National League for Nursing Accrediting Commission (NLNAC) and the American Association of Colleges of Nursing (2008) mandated nursing programs to incorporate activities that promote the development of CT in the nursing curriculum (Ojewole, 2013). Since then, the concept of

CT has become a very important concept for program success and professional competency.

Defining Critical Thinking

Goodstone et al. (2013) describe CT as a reflective, interactive process of thinking and making judgments about what to do or believe, a process that develops over time, requiring the learner to integrate both clinical and theoretical knowledge. CT, as a concept, is a continuous challenge for educators from a different discipline (Campbell, 2017). CT is a quality indicator for program outcomes and evaluating student success in health sciences programs. The correlation study by Pitts et al., (2015) use the Health Sciences Reasoning and Test (HSRT) assessment tool to explore the relationship between nursing student CT score on admission, academic progression and program completion.; the study result indicated a significant relationship between academic performance and CT scores. CT abilities, therefore, is a valid predictor for program completion, student success, and professional competency (Pitts et al., 2015).

According to the literature, the various definition of CT focuses on the process of cognitive abilities and the process of thinking. One of the most widely accepted definition was the APA consensus statement on CT. The consensus statement panel further described an individual with CT abilities as someone that demonstrate a purposeful cognitive process and exhibit other skills of interpretations, analysis, evaluation, explanation, inferences, and self -regulation. CT, as a reflective process, supports the application of theoretical knowledge to a clinical situation. Facione (2015) suggested six cores CT skills that include interpretation, analysis, evaluation, inferences explanation,

and self-regulation. While so many definitions have been proposed for CT, there is currently no universal definition for CT in nursing.

Paul (2008), an expert in CT, who has many publications on critical thinking, asserted that CT skills are foundational skills required for personal and professional development in the 21st Century (Paul, 2008). The complex healthcare system supports the need for nurses to be able to analyze patient information and provide safe quality care. Both intellectual and intelligent capacities are essential for implementing CT abilities (Paul, 2008). Paul (1992) defines CT as the process of thinking about your thinking to make your thinking better. Paul later identified three essential components of CT as elements of thoughts, intellectual standard, and affective traits. Before the 1990s, the focus on CT was cognitive. The concept and definition of CT in nursing and nursing education were revised to include affective traits.

Critical Thinking in Nursing

CT is an essential concept for clinical competency and professional growth. Nurses must be knowledgeable in both theory and clinical practice to provide safe, quality care to the healthcare consumers. The current healthcare system and technology innovation require nurses to be skilled in high order level thinking and be able to make an effective clinical decision. Nurses must demonstrate higher-order thinking and reasoning abilities to be effective in managing the complex changes and increase accountability within the health system. (Simpson and Courtenay, 2002; Chin-Yu et al., 2013). Alfaro – Lefebvre (1990) described CT as the ability to focus on your thinking and being able to get the result that you need.

CT for nursing is a process that involves a purposeful act of analysis, synthesis, perception, evaluation, information communication, and experience for making a decision (Schindler & Burkholder, 2014; Ousley, 2012). Papathanasiou et al. (2014), commented that a relationship exists between CT and the nursing process. Nurses implement the steps of the nursing process in the delivery of patient care but also incorporate both the cognitive and affective traits of a critical thinker in making patient care decisions. Nurses must develop CT skills to make an effective clinical decision and be able to assume responsibility for their interventions and actions. (ANA, 2016; Malone, 2014; Papathanasiou, 2014).

Over the last 2 decades, nursing education curricula has changed from educator centered teaching to student-centered. The changes were stimulated in response to consumers demanding safe quality care, expanding, and the evolving role of the nurse (Duncan and Schulz, 2015). The nurse educator has professional responsibility for facilitating the development of student nurse CT abilities. The 21st Century nurse must be prepared to meet the current need of the healthcare consumer and be able to think like a nurse. “The thinking like a nurse initiative” lunch by Tanner in 2006 provided nurse educators with a framework for conceptualizing the essential concept for nursing curricular (Ward & Morris, 2016).

Turner's concept of “thinking like a nurse” was created to bridge the gap between CT and student success in the nursing program; the nurse educator emphasizes the essential concept of nursing practice. The student in the nursing program with this initiative was able to think and make connections with clinical situations. The National Council of State

Board of Nursing (2015) conducted a program outcome analyses of the nursing program using the “Think Like a Nurse initiative; the findings indicated an increase in the student passing performance and an increase in the student score of client management. Ward and Morris (2016) commented that nurse educators were encouraged to use the “Think like a Nurse’ initiative package teaching purposes and academic advising. This initiative promotes the development of students’ CT abilities.

Teaching Strategies Used by Nurse Educator

Nurse Educators are individuals with a graduate-level academic preparation that serves as an instructor and have experience in a clinical specialty. A nurse educator is required to be competent in clinical practice, curriculum development, teaching strategies, and evaluation methods (Booth et al., 2016). Nurse educators used different teaching strategies to facilitate the development of students’ CT abilities. The commonly used teaching strategies include problem -based learning, concept mapping, lecture, questioning, simulation, and case study.

Problem-Based Learning

Problem-based learning (PBL) is a structured collaborative learning strategy that enhances the development of student critical thinking. The PBL learning model was first used in Canada as a teaching strategy by medical students in 1988 (Kong et al., 2014; Wosinski et al., 2018). The learners worked collaboratively in a small group, and are presented with a patient case study to identify solutions to the patient problem.

PBL is a structure focus teaching strategy; the student follows the five steps in determining the answers to the given question. The five steps in PBL strategy include (a)

identify the actual problem, (b) review the data on the problem, (c) analysis of the knowledge gap, (d) explore possible solutions, and (e) create an action plan (Orique & McCarthy, 2015).

In a systemic review of the literature, including experimental studies, Carvalho et al. (2017) evaluated interventions used to improve CT in an undergraduate nursing program. The studies reviewed identified problem-based learning as the most commonly used teaching strategies for promoting the development of student critical thinking. The authors recommended for future methodological studies to investigate which teaching strategies have a higher value for supporting the development of student analytical thinking abilities.

PBL facilitates the development of student cognitive and metacognitive skills (Gholami et al., 2016). In a quasi-experimental single group, pretest-posttest design, Gholami et al. (2016) compared the CT skills of the nursing student using the lecture format with PBL. The nursing student received instruction using the traditional teaching method for the first 8 weeks of the semester, and PBL instruction was implemented during the last 8 weeks of the semester. The students' CT abilities were evaluated using the lecture and PBL teaching method; the study findings identified a significant increase in the student critical abilities with the PBL strategies. No significant changes were identified with the lecture method. Other findings from this study were that for the PBL to be meaningful, the educator needs to be educated on how to facilitate learning and provide support for the student throughout the process (Gholami et al., 2016). Similarly, PBL was more effective in facilitating students' CT abilities (Kong et al., 2014).

Concept Map

Concept mapping (CM) is a graphical illustration that describes the relationship between two concepts. Concept Mapping is organized in a model with connecting arrows to describe the relationship. Novak and Gowin (1998) developed CM as a teaching strategy grounded on the Ausubel assimilation theory of cognitive learning that defines learning as a process of assimilating new information. This teaching strategy has been used in education for the past 30 years (Kinchin, 2014). The CM is arranged in hierarchal order, using side by side or up and down format to further explain the relationship. CM assists the student in transforming reading into critical thinking; the ability to organize a complex concept assists the learner in applying previous knowledge and reconstructing their knowledge. The effect of concept map as a teaching strategy to enhance the development of cognitive skills and clinical decisions in nursing practice is well documented in the literature (Chan, 2017; Doug et al., 2015; Hagell et al., 2016).

Garwood, Ahmed, and McComb (2018), in a systemic review and meta-analysis study, investigated the effectiveness of concept mapping as a teaching and learning strategy on undergraduate nursing student's CT abilities. Seventeen studies met the criteria for the review; eighty percent of the study reviewed the identified CM as a useful learning strategy. The study findings revealed CM as a valuable learning strategy that promotes the development of student CT and the application of the theoretical concept to clinical practice (Garwood et al., 2018). Additionally, Yue et al., (2017) in systemic review and meta-analysis examined how concept map facilitates the development of student CT in nursing education. The reviewed articles included eleven meta-analysis and

thirteen systemic articles; the studies from the meta-analysis articles compared the effect of the CM and traditional teaching methods. The study results reported the use of CM as a teaching strategy that improves student CT ability when compared with the traditional teaching method. The study finding also emphasis evaluating student CT skills with measuring tools such as California Critical Thinking Disposition Inventory (CCTDI), California Critical Thinking Skill Test (CCTST), and Critical Thinking Scale (CTS). CM also has positive a positive effect on the student's CT dispositions that include (a) truth-seeking, (b) open-mindedness, (c) self -confidence, and (d) CT cognitive skills (Yue et al., 2017).

Clinical Simulation

Clinical Simulation (CS) is an instructional strategy that involves the use of any activities such as a device, a person, or a set of conditions that allows the student to experience the reality of the clinical situation in a controlled environment. Simulations experiences are designed to bridges theoretical knowledge and to stimulate the use of CT skills in making clinical decisions for patient care. (Jeffries 2005; Lestander et al., 2016), Jensen (2013) concurred that simulation in nursing education is an event or a situation designed to mimic caring nursing care at the bedside. Simulations as a teaching strategy in the healthcare settings are intended for assessment, teaching purposes, research, and health system integration to enhance patient safety (Simulation in Healthcare, 2016). The military first used simulation in the 18th century for aviation training and nuclear power (Przybyl et al., 2015). Nursing begins to used simulation activities for learning in the 1950s to explain procedures such as insertion of urinary catheters, intravenous catheters,

and cardiac resuscitation. CS as a teaching method has evolved over the years, with technology integration to facilitates student learning.

The different types of simulation in nursing education include standardized patient, low fidelity, screen-based (virtual), and high fidelity (Griffiths, 2018). Standardized patients are people trained to model as the patient; they interact with the healthcare worker and respond to questions asked. Low fidelity simulation involves the use of non-computerized computer mannequins, task trainers, case study, anatomical representations to describe the concept for learning (Tosterud et al., 2013). High fidelity simulation included the use of computerized mannequins with different system sounds (heart, lungs, pulses, and bowel sounds), vocal responses, and the ability to take the patient vital signs (Przybyl et al., 2015).

According to the literature, both qualitative and quantitative studies examined how simulation activities facilitate the development of CT abilities. Shin et al. (2015), in a quantitative study, examine the effects of simulation on student CT abilities using the pre and posttest design. Data were collected from three universities that comprise of 30 multisite and a convenience sample of ($N = 237$) senior nursing students. Students from the different sites were exposed to the same simulation courseware, equipment, and assessment tools. The student participant from one of the University was exposed to one simulation session; the group from another University completed two simulation sessions while the third group was exposed to three simulation sessions. Yoon's CT Disposition tool was used to evaluate student CT abilities. The authors observed a variation in the student CT scores when compared to the simulation exposures. The study findings

reported statistically significant gains in CT abilities of students that were exposed to three simulation exposure, and no significant result on CT scores of the student with one simulation exposure.

Similarly, Kaddoura et al. (2016), in a qualitative study, explored nursing students perceived benefits and challenges of repeated exposure to high fidelity simulation scenarios. The data collection was from a convenience sample of nursing students; that were exposed to various simulation activities. The student describes the benefits and challenges of the multiple exposures to high fidelity simulation using a paper test. The following themes that emerged from the study include confidence, critical thinking, competence, theory-practice integration, and knowledge deficient identification. The study participants commented that exposures to simulations activities engage the learners to think critically before providing care (Kaddoura et al., 2016). This literature reviewed was meaningful to my study because of the study design, and themes from the study align with some of my attributes of critical thinking.

Clinical Competency

The new graduate nurses are required to complete the requirement for the nursing program, pass the licensure examination, and to maintain a minimal level of clinical competency for safe practice. Kubin and Fogg (2010) described clinical nursing competence as a combination of knowledge, behaviors, and the ability to perform safe, quality patient care. Clinical competency within the nursing professions requires more than technical skills; it involves clinical judgment, critical thinking, clinical reasoning, and communication skills (Kubin and Fogg,2010; Benner et al., 2010; Theisen et al.,

2013). The essentials clinical competency for nursing program outline by the American Associations of Colleges of Nursing (AACN) include (a) communication, (b) CT abilities, (c) assessment, (d) development of professional roles and mentoring in an environment that enhances learning (Martin, Godfrey & Walker, 2015; AACN, 2018). Although nurse educators incorporate the essential guidelines into the curriculum; most healthcare workers reported that 80% of graduate nurse lacks the clinical decision-making skills for clinical practice (Munteen, 2017; Missen et al., 2016).

The clinical competency of the new graduate nurse is a primary concern for hospital administrators and nurse educators (Wise, 2013). Nurse educators have the professional responsible for preparing nursing students for professional nursing practice. Although, nurse educators implement different teaching strategies to prepare the student for professional practice. There is a practice competency gap between the cognitive, technical, communication skills of the new graduate nurses and the competencies required by the healthcare industry (Wise, 2013; Harrison et al., 2019). The nurse educator, therefore, strives to facilitate the development of student CT by using different teaching strategies to promote the graduate student's clinical competency.

The qualitative study by Missen et al. (2016) explored the perception of qualified nurses on the abilities of newly registered nursing graduates to perform clinical skills. The data collection was a survey tool that identified 51 clinical skills and open-ended questions; new nurses' graduates' abilities were rated using the 5-point Likert scale. The study findings reported new graduates' abilities for performing clinical skills, demonstrating CT abilities, problem-solving, and assessment procedures as very poor.

These findings are consistent with the literature (Missen et al., 2016). Another retrospective study by Kavanagh and Szweda (2017), assessed the practice readiness and competency level of new graduate nurses between 2010 to 2015 from a large medical center. The pre- and post-Performance- Based Development (PBD) tool was used for data collection from new graduate nurses. The study finding indicated that 23% of the new graduate nurses demonstrate the required competency for practice readiness. The authors suggest the need for deep learning and curriculum review in nursing programs (Kavanagh & Szweda, 2017).

Summary

Chapter 2 presented a summary of the history, definitions of CT in nursing, and the literature review of the key variables. CT is a reflective interact process of thinking, making a judgment, and requiring the learner to integrate both clinical and theoretical knowledge. (Goodstone et al., 2013). The individual with CT exhibits the thinking skills that include interpretation, analysis, evaluation, inferences, explanation, self-regulation.

CT skills are required competency for professional practice in the healthcare industry. The clinical competency of the new graduate nurse is a primary concern for hospital administrators and nurse educators (Wise, 2013). The newly graduate nurse lacks the competency requirement for the clinical practice, which often compromises patient safety (Bennett, 2017; Al – Dossary et al., 2014).

The literature reviewed supported the premise that new graduate nurses lack the essential competence for professional practice. It is not clear about which of the teaching strategy used by nurse educators best promote the development of student CT skills. This

study will provide an in-depth understanding of the different teaching strategies used by nurse educators in developing student CT abilities and a new direction for curriculum revision.

Chapter 3 will provide a review of the research method that includes the design, population, sampling, data collection, and data analysis.

Chapter 3: Research Method

The purpose of this interpretative phenomenological study was to understand the lived experiences of nurse educators who used CT strategies in a baccalaureate nursing program to develop CT skills in nursing students. I sought to understand the nurse educator's perception of the success of the teaching strategies used to promote CT abilities in their students and the rationale for using them. In this chapter, I cover the following topics: research design, methodology, research questions, rationale for the selected methodology, research population, sampling, data collection, ethical considerations, and the researcher's role.

Research Design and Rationale

Qualitative designs are guided by epistemological and ontological assumptions that allow the researcher to obtain real life information about the phenomenon being studied and to construct new knowledge from the data collected (Ravitch & Carl, 2016; Yilmaz, 2013). Qualitative research requires fieldwork and naturalistic engagement that support the investigator's active involvement with the participants (Merriam, 2009; Robson, 2011).

Research Question

A phenomenological study is designed to explain participants' lived experiences of a phenomenon (Moustakas, 1994). The study was conducted using this approach.

The following research question guided this study: What are the lived experiences of nurse educators who teach in a baccalaureate nursing program as they attempt to

develop CT abilities in their students? I used the following guiding questions during the interview (see Appendix D).

1. What does critical thinking teaching strategies mean to you?
 - (a) Please describe the critical thinking teaching strategies you have utilized in developing the critical thinking abilities of your students?
 - (b) What are some of your experiences in using this teaching strategies.
2. Discuss the rationale that supports the selection of the CT teaching strategies you utilize to develop the critical thinking abilities of your student?
 - (a) Describe the nurse educator's perception of the success of the teaching strategies used to promote critical thinking abilities in the students.
3. What teaching strategies do you believe nurse educators use to promote student critical thinking and decision-making skills?
 - (a) Which of the teaching strategies do you believe best facilitated the development of your student critical thinking abilities?
 - (b) How will you describe critical thinking abilities?
 - (c) What are some of the characteristics of a student demonstrating critical thinking abilities for clinical decision making?
 - (d) What do nurse educators' beliefs are the most important outcomes of using critical thinking teaching strategies?
 - (e) What do nurse educators perceive were the cognitive and affective skills that contribute to clinical competency?

Central Concept and Phenomenon

The central concept of this study was constructivist, a learning theory rooted in the assumptions of how learners acquire new knowledge. Constructivism is a learning process in which meaning is constructed and interpreted from the learner's perspectives. The learner constructs new knowledge by building upon previous knowledge and experiences (Dennick, 2016). The ordering process for the constructivist learner can be described as assimilation, accommodation, and constructivism. Assimilation is the ability to integrate new knowledge into the cognitive center. Accommodation is the process of applying the new concept into meaningful knowledge (Ormrod, 2016). The nurse educator facilitates learning through the application of different teaching strategies that stimulate learners to construct new knowledge through practice (Buckley et al., 2015). The students are actively involved in the learning process; this behavior enhances the transfer of theoretical knowledge into effective clinical decision-making skills. An understanding of the teaching strategies that best promote the student's CT abilities can help to improve the new graduate nurse's clinical competency and minimize medical errors commonly associated with the group of nurses (Carvalho al., 2017). In the constructivist learning environment, the role of the educator is to facilitate the types of social environments in the classroom or clinical settings that stimulate learners to construct new knowledge through practice (Buckley et al., 2015).

Research Tradition

In qualitative research, data are collected in the form of words or narrative descriptions, not in numerical form, as in quantitative research (Shudak, 2018). Although

there are different types of qualitative studies, the phenomenological method allows the researcher to understand the lived experiences and their meaning from the participant perspectives (Vagle, 2014). Creswell and Poth (2018) highlighted that phenomenological research is designed to explore the participant understanding and lived experiences of the subject matter. The researcher is the key instrument and collects data in a natural setting. In a phenomenological study, the data obtained from the participant help to identify a common theme and provide a suggestion for the problem being investigated (Creswell & Poth, 2018).

As a type of qualitative research, phenomenology is appropriate for educational research, and the basic unit of analysis is the phenomena, not the people (Shudak, 2018). According to Shudak (2018), phenomena are those things that we come to know through consciously experiencing them. In this proposed dissertation study, the phenomena are the lived experiences of baccalaureate nursing instructors in how they experience teaching CT in the classroom. The goal of phenomenological research is to explore the participants understanding and lived experiences of the subject matter (Shudak, 2018).

Rationale for the Chosen Method

The phenomenological research method allows the researcher to obtain rich, thick information from a small-sized sample and to identify and interpret themes for possible solutions (Smith et al., 2009). The use of a homogenous purposeful sample provides opportunities for the researcher to categorize comparable and noncomparable themes among the participants; this supports the systemic approach for analysis and can result in a deep understanding of the participant perspectives (Smith et al., 2009). The

phenomenological research method helps to identify the feelings, thoughts, and meaningful experiences of the participants that are difficult to investigate in a quantitative study (Denzin & Lincoln, 2013).

An interpretative phenomenological study is appropriate for eliciting implied knowledge, subjective comprehension, and subjective interpretations and for delving in-depth into complex situations and processes (Austin & Sutton, 2015; Lincoln & Guba, 1985). The data collection process for phenomenological study researchers allows the researcher to interact with the study participants to obtain insight into their subjective realities about the phenomenon being studied and to construct new knowledge from the data collected (Ravitch & Carl, 2016). The new knowledge further supports the advancement of the phenomenon being investigated.

Role of the Researcher

The researcher in a qualitative study is the instrument for data collection and assumes responsibility for every step of the researcher process; the researcher identity, positionality, and location influence the data collection and the study result (Lofland et al., 2006). My role in this qualitative research was as a graduate student and novice researcher in training. I am a nurse educator; however, my study participants will be selected from a pool of nurse educators from other universities. Self-awareness in research is the researcher's ability to identify opinions, ideas, and feeling about a phenomenon (Levitt et al., 2017). I practiced self-awareness by reflecting on the concepts before interviewing and analyzing data.

Ravitch and Carl (2016) suggested that the researcher develop a personality memo that includes the assumptions that shape the research topic, reasons for wanting to explore the topic, and any other guiding beliefs that shape the research. I kept a positionality memo to assist in identifying both internal and external biases that may affect the research methodology (see Ravitch & Carl, 2016). To preserve the integrity of the research and to minimize bias, I reduced, bracketed, or suspended my preconceptions concerning the research to keep my opinions and personal values from influencing the study (Shudak, 2018).

Methodology

Participant Selection Logic

The purpose of this qualitative interpretative phenomenology study is to understand the lived experiences of nurse educators who used CT strategies in a baccalaureate-nursing program to develop CT skills in nursing students. The population for the study is nurse educators; the study includes nurse educators with a minimum of three years teaching experience and who are involved in mentoring or supervising student in a clinical setting. Nurse educators from Associate Degree and Diploma nursing programs are excluded, as this is a different curriculum and population from the BSN programs.

Sampling Design

Purposeful convenience sampling allows the researcher to collect data from the participants who have experienced the phenomenon being investigated (Creswell & Poth, 2018). Purposeful sampling supports the use of a small group of study participants for

data collection to generate an in-depth understanding of the phenomenon (Saldaña, 2016). The purposeful sample method was selected because the nurse educator is the appropriate population of interest with the most experience to support the phenomenon being investigated. The research design in a qualitative study determines the sample size. The sample size in a qualitative study is typically small, ranging from 3–20. Creswell and Poth (2018) suggested a sample size of three to ten for a phenomenological design and for the researcher to continue with data collection until saturation is achieved. Thirteen nurse educators were interviewed for the study. To ensure saturation, the data analyzed while still collecting to ensure that themes are repeated continuously and no new information is detected from the data (Hanson et al., 2011; Patton, 2015).

Procedures for Recruitment, Participation, and Data Collection

The Walden University research participant request form was submitted for permission to distribute the recruitment flyer to individuals in the research participant pool. The study participants were recruited from the Walden University research participant pool and through snowball. One of the recruitment sites was unable to post my study flyer due to unforeseen circumstances. The participant recruitment begins after obtaining approval from Walden University Institutional Review Board (IRB).

- I used the recruitment flyer (Appendix A) that will include the purpose, the inclusion criteria for the study, my telephone number, and my email address for prospective study participants who are interested in learning more about the study to contact me. A copy of the recruitment flyer was posted on the Walden research participant pool.

- The screening questionnaire (Appendix B) was sent via email to the participants who express an interest in participating in the study; with the instruction to complete the screening form and return it back to me via the email.
- Those who do not meet the criteria received a thank you email for expressing an interest in the study and were informed that they did not meet the criteria for the study.
- Those who meet the criteria, received an email requesting for a follow up telephone meeting to further discuss the purpose of the study, voluntary participation, rights to privacy, procedures for the study, and the risks and benefits associated with the study.
- I emailed a copy of consent (Appendix C) to the participants who agreed to participate in the study and ask them to reviewed the consent; and sign it if they agreed to participate in the study and email it back to me. I suggested that they save a copy of the consent. I asked the participants to include in the email days and times when they will be available to participate in the phone interview.
- The interview guide was developed (Appendix D) using the Walden University interview guide template.
- The telephone interviews were scheduled based on the availability of the participants. The participants were encouraged to ensure that the interview occurs in a private location where their conversation cannot be overheard.

- Before beginning the interview, I reminded each participant of their privacy protection, their choice of voluntary withdrawal from the study, and that the interview will be audio recorded.
- At the end of the interview, each participant received a thank you appreciation for meeting with me. In addition, each participant received a \$10.00 e gift certificate. I will plan to share with all the participants a two-page summary of the study result by email.

Instrumentation

The instrument for the study will be the researcher-created structured interview questions. Patton (2015) asserted that open interview questions promote the participants' self-expression using their vocabulary. Research questions are designed to stimulate different types of responses; research participant responses should capture both the feeling and their experiences. Patton suggested the use of six types of questions to stimulate responses about (a) opinions and values, (b) knowledge, (c) feelings, (d) experiences and behaviors, (e) background or demographic, and (f) sensory impressions. I developed questions to capture participant feelings and experiences about the teaching strategies they use most frequently to best develop student CT abilities. In addition, the questions were developed based on the review of the literature relating to CT teaching strategies, the questions are designed to focus on the knowledge and the experiences of the study participants (Rubin & Rubin, 2012). The research and the interview questions were reviewed by my dissertation committee members.

Data Analysis

The process of qualitative data analysis includes examining, categorizing, tabulating, and recombining the data (Woods et.,2015) The data collection method will be via telephone interview with the conversation being audio recorded. The qualitative researcher reviews the data and deduct meaningful information to gain an understanding of the lived experiences of the participants. (Ravitch & Carl, 2016). The process of deducting the meaning from the data involves coding into categories and assigning a theme to the category. Codes in qualitative research are assigned tags or labels that the researcher uses to ascribe a meaning to a word and organize the data into clusters or theme (Ravitch and Carl, 2016). Qualitative data represent ideas and words that may be difficult for the novice researcher to analyze.

I begin the data analysis after the second interview to facilitates the identification of emergent patterns that may support further inquiry with the data collection (Patton, 2015). collection. Computer-Assisted Qualitative Data Analysis Software (CAQDAS) can be used to code and organize the participant responses into themes (Rudestam & Newton, 2015; Saldaña, 2016). The data was analyzed using manual coding and the NVivo software to ensure consistency in coding and identification of the meaningful themes from the interviews (Ssenkungo, 2016). I refined and make connections with the themes to generate ideas and explanations appropriate to answer the research question (Ravitch & Carl, 2016).

Issues of Trustworthiness

The researchers in both quantitative and qualitative are required to maintain and demonstrate rigor in data collection and analysis to enhance the study's credibility. The criteria for assessing the quality of a qualitative research are credibility, transferability, confirmability, and dependability (Castleberry & Nolen, 2018).

Credibility

Credibility in qualitative research is compared to validity in the quantitative study. Credibility in qualitative study explains the truthfulness in the study results and how the findings connect with reality to validate the truth (Noble and Smith, 2016). The study's credibility is the researcher's ability to present evidence that supports truth in research design, data collection and analyses biases that may influence the study result (Polit & Beck, 2013). Assessing credibility in the qualitative study could be challenging, as the researcher may be limited to evidence that supports the validity of the data collected. Patton (2015) suggested using skillful interviewing techniques by probing research participant to obtain further information on the phenomenon being investigated. I maintained credibility by engaging with the participant to make them feel comfortable and establish a relation before starting the interview questions. Additionally, I focused on the interview questions and avoid leading the participant to any responses. Each participant was given an equal amount of time for each question, the same set of questions and enough time to reflect on the questions. The use of the Maxwell seven-point checklist for qualitative research helps to strengthen the research credibility (Maxwell, 2009). I used the Maxwell seven-point checklist for data analysis which

includes (a) intensive field observation, (b) rich data collection, (c) respondent validation of researcher interpretation of data collection, (d) search for rival evidence and negative cases, (e) triangulation, (f) Quasi- statistics: using numbers to validate the data, (g) comparison of findings from diverse sources. (Maxwell, 2009).

Transferability

Transferability is another method of evaluating quality in qualitative research. Transferability is the degree to which the study findings can be transferred to another group in another setting (Brinkman & Kvale, 2014). The ability to replicate the study at another setting enhances the study's relevance and helps to generate thick, rich description data supported by evidence. Qualitative research result can be transfer to settings if the population are comparable to the group being investigated (Rubin & Rubin, 2012). The study findings on nurse educators use of CT teaching strategies may be applicable to nurse educators in other regions and clinical settings. Transferability in this study will be facilitated by providing a detailed description of the processes used for data collection and analysis and data obtained to ensure understanding by the readers; and to can establish a level of similarity between this study and the settings stings to which findings might be transferred (Patton, 2015).

Dependability

Dependability in qualitative research is similar to reliability in quantitative study and the evidence that support the research method. Patton (2015) asserted that dependability is the researcher's responsibility to ensure that the processes involved in the research design, data collection, and interpretation of the findings are logical,

supported with evidence and documented. The researcher maintains dependability by accurate documentation of the data collection analysis process and possible challenges associated with the research design (Ravitch and Carl, 2016). The researcher being the key instrument in qualitative study adheres to consistency in data collection and analysis and record keeping for qualitative study. This study will be reviewed by my research committee and they will provide guidance to ensure that the research questions is congruent with the research design, data collection and analysis (Miles.et al., 2014). During the interview process, I validated data collected to ensure that the information is reliable and well documented (Patton, 2015). I used an audit- trail, by keeping the documentation for each decision-making process of the data collection and analysis phase.

Confirmability

Patton (2015) commented that confirmability is similar to objectivity, with the focus on evidence to support the fact that data collections and analysis are credible without the researcher personal bias. Confirmability is the researcher's ability to validate the study result. The researcher acknowledged the possible bias that may influence the study result, minimize the influence by controlling their view point on the topic being investigated. Data credibility was ensured by using the participants verbatim responses to support the study findings. An audit- trail was used by keeping the documentation for each decision-making process of the data collection and analysis. Rudestam and Newton (2015) describes reflexivity as the researcher critical self-reflection on assumptions and bias related to phenomenon and how this may impact the research process. Reflexibility

was ensured through self-reflection by exploring my personal viewpoints on the topic being investigated and setting them aside during the data collection and the analysis phase.

Ethical Procedures

Research ethics are the critical components of the moral principles that guide the research process. The researcher maintains the moral obligation of interviewing in compliance with the national research ethical standard (Harvey, 2015). The Belmont report of 1979 classifies the ethical principles to support research on human subjects as beneficence, justice, and respect for the person. The approval for the study will be obtained from Walden University Institutional Review Board (IRB). The ethical concerns for data collection are informed consent and confidentiality. Upon IRB approval from Walden University IRB, I to obtained permission to post my research flyer on the Walden University research participant's pool. The research recruitment flyer will include the purpose for the study and criteria for participation in the study.

The selected participants for the study will be volunteers who meet the inclusion criteria. The participants will be instructed that their participation is voluntary, and they can withdrawal from the study at any time. The informed consent explains the purpose of the study, participant expectation, risk and benefit associated with the study. The study participant confidentiality will be maintained by using codes instead of their names to identify each participant and not revealing any personal identifiable information in the notes or the transcribed data. Demographic data, and notes were kept in a locked file cabinet in my home office. Interview and transcribed data were kept on my password

protected computer in my home. I alone have the password. All collected data will be kept for five years according to the University policy, and then destroyed. I will share a two-page summary of the results with the participants.

Summary

Phenomenological qualitative research is designed to explore the meaning and lived experiences of the phenomenon being investigated. An interpretative phenomenological approach is appropriate to explore the lived experiences of the teaching strategies used by nurse educators to facilitate the development of student CT abilities. CT abilities are required competency for professional nursing practice. Phenomenological qualitative study is design to collect thick rich data from the study participant on the phenomenon being investigated. Chapter 3 presented the research design, methodology, role of the researcher and rationale for the selected method. Interviewing is the data collection method for phenomenological qualitative study; the researcher implements skillful interviewing techniques for further inquiry about the phenomenon being investigated (Patton, 2015). Additionally, the data collection procedures, data analysis, and ethical consideration for qualitative studies were also discussed. Privacy and confidentiality are major concerns in qualitative research, the research assume responsibility for maintaining the participant confidentiality through the data collection and analysis phase of the study (Lancaster, 2015). Chapter 4 will provide a review of the research setting, data collection, participant demographics, data analysis, and study results.

Chapter 4: Results

The purpose of this interpretative, phenomenological study was to understand the lived experiences of nurse educators who use CT strategies in a baccalaureate nursing program to develop CT skills in nursing students. In addition, I sought to understand the nurse educators' perception of the success of the teaching strategies used to promote students' CT abilities and the rationale for using them.

The following research questions and sub questions were formulated to elicit information from the participants:

RQ: What are the lived experiences of nurse educators who teach in a baccalaureate nursing program as they attempt to develop CT abilities in their students?

1. What does critical thinking teaching strategies mean to you?

(a) Please describe the critical thinking teaching strategies you have utilized in developing the critical thinking abilities of your students?

(b) What are some of your experiences in using this teaching strategies.

2. Discuss the rationale that supports the selection of the CT teaching strategies you utilize to develop the critical thinking abilities of your student?

(a) Describe the nurse educator's perception of the success of the teaching strategies used to promote critical thinking abilities in the students.

3. What teaching strategies do you believe nurse educators use to promote student critical thinking and decision-making skills?

(a) Which of the teaching strategies do you believe best facilitated the

- development of your student critical thinking abilities?
- (b) How will you describe critical thinking abilities?
 - (c) What are some of the characteristics of a student demonstrating critical thinking abilities for clinical decision making?
 - (d) What do nurse educators' beliefs are the most important outcomes of using critical thinking teaching strategies?
 - (e) What do nurse educators perceive were the cognitive and affective skills that contribute to clinical competency?

In this chapter, I discuss the setting, participant demographics, data collection, data analysis, evidence of trustworthiness, and the study result.

Setting

The study was implemented as proposed. An interpretive phenomenological study was conducted to understand the lived experience of nurse educators who had teaching experience and had supervised nursing students in a clinical setting in baccalaureate nursing programs. The telephone interview was based on each participant's availability. No personal or organizational conditions influenced the participants during the interviews that may influence the interpretation of the study's results.

Demographics

I recruited 13 nurse educators from the Walden University research participant pool using snowball sampling. The study participants were all above 40 years old, taught in a baccalaureate nursing program and supervised the nursing students in a clinical setting. Two of the individuals who contacted me to learn more about the study did not

meet the inclusion criteria; they taught in an associate nursing program. All participants interviewed were female, five of whom held a doctoral degree and eight had a master's degree. Table 1 presents the participants' demographic data.

Table 1

Demographic Data

Characteristics	No. of participants	%
Master's degree	8	62
Doctoral degree	5	38
Years of teaching at baccalaureate level		
> 3 years	1	13
> 5 years	4	31
> 10 years	8	62

Data Collection

Upon receiving the approval for my study from Walden University IRB (# 10-07-20-0670183), the study flyer was posted on the Walden University research participant pool. One of the recruitment sites was unable to post my study flyer due to unforeseen circumstances. I also used snowball for recruiting study participants. I received emails and phone calls from interested participants. The screening form was emailed to the interested participants to inquire if they met the criteria for the study. Those who met the criteria received an email for a scheduled telephone meeting to further discuss the purpose of the study, voluntary participation, rights to privacy, procedures for the study, and the risks and benefits associated with the study.

A copy of the consent form was emailed to the individual interested in participating in the study. The participant was asked to review the consent form, and if they understand the study well enough to participate, they can reply to my email with the

word “I consent.” A telephone interview was scheduled at an agreed-upon time with each participant that responded with the word “I consent” to the email.

I interviewed 13 nurse educators, each participant has more than three years of teaching experience in a baccalaureate nursing program. Before beginning each interview, I reviewed the purpose of the study, my interview protocol (Appendix D); the participant was reminded of the voluntary nature of the study, their privacy was assured, and that participation will not pose any risk beyond any of the typical daily life experiences. The telephone interview was conducted in a quiet environment. The interview sessions, on average, lasted for 20 to 37 minutes. Data was collected over a period of six weeks, from the end of October to the first week in December 2020. The participants responses were audio-recorded and was manually transcribed by me. Each individual transcript was saved under a password without any identifiers to ensure participant confidentiality. After conducting the interview with the 13th participant, there was no new relevant information from the last two participants; it was evident that theoretical saturation has been reached, and a further interview was no longer necessary (Rubin & Rubin, 2012). Each participant received a \$25.00 e-gift card as stated in the study flyer. There were no variations or any unusual circumstances experienced during the data collection phase of this study.

Data Analysis

Data analysis involves transcribing the participant's responses word for word, reading, coding, developing themes, organizing, and interpreting the data (Cypress, 2018). The audiotaped interview transcript was transcribed into a word document. The

word document was reviewed against the audio recording for accuracy. The transcript was reviewed to obtain an in-depth understanding of the participant's experiences using CTTS in a baccalaureate nursing program. After the second interview, I reviewed the transcript to determine the need for further follow-up questions during my interviews with other participants (Creswell, 2018).

The transcript was reviewed line by line, edited for clarity, and codes were assigned. I read, re-read, and refine the data to make connections with themes; generate ideas and explanations appropriate to answer the research questions (Ravitch & Carl, 2016). Each participant's transcript was uploaded into NVivo plus version to identify any additional codes that were not identified during the manual line-by-line coding. Upon comparing the line-by-line coding and the codes generated from the NVivo, there were no new codes identified. Three themes and eleven subthemes were generated from the participant's responses.

Evidence of Trustworthiness

Credibility

Credibility in the qualitative study explains the study result's truthfulness and how the findings connect with reality to validate the truth (Noble & Smith, 2016). To ensure credibility, I ensure that each participant interviewed met the study criteria, understood the study's purpose, and agreed to participate. I spent time with the participants before the formal interview to establish a relationship and make them comfortable. The same set of questions were given to each participant; they had an equal amount of time for each question and enough time to reflect on the questions. Noon

(2018) supports the use of intensive interviews to collect rich data; this type of data requires an accurate transcript of the interviews and not just the researcher's feelings. Intensive interview skills were used in collecting rich data from the participants; the participant's responses were validated by repeating the answers to confirm that the meaning is understood. The audio recorded for each participant was reviewed to confirm consistency with each interview question.

Transferability

Transferability is the degree to which the study findings can be transferred to another group in another setting (Brinkman & Kvale, 2014). I interviewed nurse educators in a baccalaureate degree programs; the result of this study may be used to understand educators' use of CITS in another baccalaureate programs. A detailed description of the processes used for data collection and analysis is provided to establish a level of similarity between this study and the settings to which the findings may be transferred (Patton, 2015).

Dependability

I maintained the study dependability by keeping accurate documentation of the data collection analysis process and possible challenges associated with the research design (Ravitch & Carl, 2016). The study was implemented as proposed; there was no evident variation observed during the study's data collection and analysis phase. During the interview, the responses were cross-validated and compared with my notes to ensure that the information is reliable and well documented (Patton, 2015).

Confirmability

To further ensure the study's trustworthiness, I reported the participant's verbatim responses to support the themes and codes identified. The codes and themes identified were the result of the data analysis from the participants' experiences on the use of CTTS in a baccalaureate nursing program. I ensure reflexivity by exploring my personal views on the topic, background, and biases by setting the same aside. I remain supportive and nonjudgmental throughout the data collection and analysis phase of the study.

Study Results

I transcribed the data manually. The transcript was reviewed line by line, edited for clarity, and codes were assigned. After using the NVIVO applications, the study data was organized into three themes and ten subthemes. The themes represent the nurse educators' lived experiences related to their use of CTTS in a baccalaureate nursing program. The themes and subthemes are displayed in Table 2.

Table 2

Themes and Subthemes

Themes	Subthemes
Theme 1: Using a variety of strategies to	Engage student in learning Facilitate thinking Increase knowledge Transfer theory to clinical settings
Theme 2: Selecting multiples	Based on situation Student progression in the program Multiple factors
Theme 3: Outcome of using CTTS	Improved clinical competencies Improved program outcomes Improved student outcomes

Educators Use of CTTS with Students

The participants described CTTS as a teaching method used to facilitate learning and to increase student CTA skills. Fifty-three percent (53.9%) of the participants described CTTS as a teaching strategy used to help the student develop problem-solving skills. Three of the participants (23.1%) described CTTS as engaging the student in learning.

Theme 1: Using a Variety of Teaching Strategies

The participants described using a variety of teaching strategies in developing students' CT abilities. The most frequently used CTTS were case study (84.6%), simulation (76.9%), lecture (69.2%), group discussion (38.5%), questioning (30.8%), concept map (30.8%), and role-play (23.1%). The least used were debate (15.4%) and quizzes (7.7%). The participants shared their reasons for using the different CTTS. The majority identified that they used use different strategies to develop the students' CT abilities. Eleven of the 13 participants (84.6%) used a case study as a preferred teaching strategy for facilitating student abilities. Another comment to support the use of case study was from Participant #11:

My experience with the use of the case study, if you provide them the answers, they do not have an opportunity to think, the student will be forced to go into their textbook to look for the answers, they can think more, use of case study help them to develop, to retain more knowledge and this helps them in the long run.

The simulation was another commonly used teaching strategy; 76.9% of the participants used simulation as a CTTS. According to P#4, "Simulation helps to bring the

clinical concept to reality?" Participant P#1 also stated, "Simulation creates a scenario and makes them think?" Lecture was another commonly used strategy, reported by 69.25% of the participants. Participants #P1 commented that "Lecture helps the student to listen, understand the concept, help them think critically and increase the level of understanding."

To Engage Students in Learning

Participants shared their experiences of using CTTS that helped to engaged the student in learning. Seven out of the 13 participants (54%) expressed that CCTS helps keep the student engaged. Participants #P10 stated that "CCTS are the strategies that we use to elicit and engage students so that they can deeply think about the concept being taught. It involves using probing questions to engage the student while trying to teach them." P#10 also shared that this helped the student to actively participate in learning in the classroom and clinical. Participants P#8 also commented that, "CCTS is the methods used to teach and engage the student in learning or to actively engaged the student in learning." The educators reported that they used CCTS that increased their ability to keep the student engaged in learning; this helps promote the student development of CT abilities.

To Facilitate Thinking

Of the 13 participants, 8 (62%) said they use CTTS to facilitate student thinking. Participant P#4 described how the use of different strategies facilitates student thinking; she identified that "Open-ended questions help the student think a little bit more, concept map helps the student connect the dots and enhance deep thinking for the student."

Participant #11 identified that case studies provide the students with the opportunity to think." She related that "student will be force to go into their textbook to look for the answers, they can think more, use of case study help them to develop, retain more knowledge and this helps them in the long run." Participant#4 expressed her view by saying.

These are strategies used by nurse educators to convey information to the student for them to grasp the content and understand. A way to convey information to this student and help them to develop CT abilities. I like to encourage the student always to ask questions, allow for freedom of thinking. The opening ended questions are suitable for this. I allow the student to ask any questions.

To Increase Knowledge

Participants shared their views on using CTTS to facilitate student knowledge, and that knowledge impacts clinical practice. ParticipantsP#4stated that, "CTTS is the process of teaching used to make the student more knowledgeable." She identified that "Being knowledgeable is very important in developing the students' CT level and skills useful for their practice." Participants P#3 commented on the use of CTTS and said, "CTTS are strategies used for teaching so that students can better understand the concept taught." Participants#12 shared her experience and stated,

In teaching to facilitates the development of CT abilities, I like to connect the dot from pathophysiology to the signs and symptoms and the interventions. I want the student to be able to connect the implication of disease condition to every other system in the

body. For example, for a patient with diarrhea, the student should be able to explain how does this condition affects the cardiac system.

Transfer of Theory to Clinical Settings

Facilitating student CT using CTTS involves the ability to transfer theoretical concepts to clinical situations. In developing student skills, 2 participants (15.4%) stated how the use of CTTS supports the transfer of theoretical concepts to clinical settings. Participant #6 commented that, “CTTS are student-centered active teaching strategies that promote the application of the theoretical concept to clinical situations.” “Another comment to support how CTTS facilitate the transfer of theory to the clinical setting was a comment from Participants # who stated, “Enhancing the student knowledge. For example, let the student read through the chart for review and encourage them to think about the patient ‘s diagnosis, and try to develop a plan of care for the patient.”

Theme 2: Selecting Multiple Strategies

The theme of selecting multiple strategies was evident by most participants’ responses in describing the combinations of strategies used to facilitate student learning and the rationale for selecting the strategies used for a specific situation.

Based on Situation

Nine (69.2%) out of the thirteen participants identified the rationale for selecting the type of teaching strategy used was based on the situation. Participants#6 commented that the selection was determined by “student’s level in the program, the concept being discussed, and learning objectives.” Participants #8 also had similar beliefs. “The rationale for the selection depends on the content and the learning objectives of what is

being taught. For example, a lecture might be appropriate for some topic. Case study is better situated for complex topics.” Similarly Participant #10 expressed the rationale for the selection and said, “the rationale depends on the topic; for example, for a group activity, it promotes group work. They have to stand in front of their peer to discuss the information.” Additionally, Participants #10 stated

From my experience, the situation determines the type of strategy to use. I believed educators should be able to select a teaching strategy based on the situation. For example, my fundamental student may be okay with lectures, but my senior students’ needs to be more challenged. I like to ask the why and because while I am teaching.

Student Progression in the Program

Three out of the thirteen participants stated that the program’s student progression helped them determine the type of teaching strategies used to facilitate student CT abilities. Participant #7 expressed that:

“Student are overwhelmed, educators should pick their teaching strategies using student level in the nursing program. Nurse educators should be prepared to teach any group of students and be ready to implement teaching strategies that will help the student learn. Fundamental students are just coming in to the program, memorization in learning is okay, but this is not appropriate for a senior-level student.

Similarly, Participants#6 asserted that student’s level in the program determined the rationale for the selection, the concept being discussed, and learning objectives.

Multiple Factors

Other participants used multiple factors to support the rationale for using CTTS strategies in developing student CT abilities. Four (31%) out of the thirteen participants stated that multiple factors influence the selection of teaching strategies in developing student critical thinking. Participants #5 commented that:

The rationale for the selection of my teaching strategies includes student learning style, student cultural background, and the use of life application experiences so that I can bring the learning close to them. She further commented, Understanding the student culture also helps the educators relate concepts for deeper learning.

Participant #13 asserted that:

The rationale varies, like case study is more realistic, complex, and easier to convey to the student. It also helps to develop their communication skills and team-building skills. Sometimes what I am teaching helps me to decide on the method of teaching.

Additionally, Participants#12 commented:

CT is an important aspect of developing the nursing practice. The rationale for my selection is based on selecting a strategy that can facilitate the concept's connection. For example, if I am teaching about hypotension, I like to use a strategy to help the interconnection. The nursing process is one of the teaching methods that help to present a picture of what I am teaching.

Theme 3: Outcomes of Using CTTS

The majority (90%) of the participants identified the demonstration of CT abilities as an outcome of using CTTS. Nurse educators believed that student use of CTTS promotes students' CT abilities; the student abilities to demonstrate these skills help improve clinical competencies, program outcomes, and student outcomes.

Improve Clinical Competencies

Eight out of the thirteen (62%) participants reported improved clinical competencies as an essential outcome of using CTTS. Participant #1 stated that "Students are better prepared for clinical practice; for example, with simulation, you create an environment similar to the clinical setting, and the student can practice, virtualize and start to develop critical thinking abilities."

Similarly, Participants #5 commented, "Any active teaching strategies will help enhance the students' CT abilities, improve student clinical competency and student confidence." Additionally, participant #8 in responding to the outcome of using CTTS commented that "student will learn more, able to understand what is being taught, improve clinical competencies and professional confidence." The participants responding to their beliefs about the skills that contribute to clinical competencies identify attributes to define cognitive and affective skills. Participant #6 stated that commented that "cognitive skills are about knowledge, and apply, get the content, even though we say content and understanding the content they must learn it, comprehend and apply the knowledge; for affective domain they have to be in the present, compassion, caring, empathy." Other comments by the nurse educators to define cognitive skills include the

students' ability to analyze; to problem solve; and develop self-confidence were identified. Compassion, caring, empathy, and communications skills are characteristics nurse educators used to define affective skills.

Improve Program Outcomes

Of the 13 participants nine (69%) indicated improved student grades, and better scores on the nursing licensure examination as an important outcome of using CCTS. Participant #4 asserted that "The use of CTTS helps the educator test if the teaching strategy has been successful, students perform better on their exams and their board scores." To further support how the use of CTTS improve program outcomes of, participant #11 commented that "CCTS helps the student to obtain better grades, students are educated with the first-time pass on the nursing board examination". Additionally, Participant #7 stated "they progress well to the next level in the program, the board scores are better and student do well in their exams."

Improve Student Outcomes

Upon completing the nursing program, students should demonstrate the ability to analyze, develop a plan of care, and make effective clinical decisions. Six out of the thirteen participants (46.2%) shared their experiences about the student's ability to analyze, and evaluate the plan of care after using CTTS to teach the student and developing their CTA skills.

Participant #5 specified that

By the end of the program for the students; there is a better understanding of the concept being taught, CT behaviors are much improved, student analyze better, and are

able to connect the why, if, and what. For example, the clinical senior-level student has higher CT abilities than fundamental students.

Participants P#6 expressed how CTTS improve student outcome and stated “Nurse educators believed that students demonstrating CTA could connect the dot, analyze data, and develop a patient care plan”.

Of the 13 participants 8 expressed (31%) expressed the ability to make a practical clinical decision as an outcome of using CTTS and demonstrating CTA. Participants#5 commented “The ability to make the right decision for the patient; For example, applying patient cultural beliefs while providing care.” To further support the student ability to make a practical decision, Participants #7 asserted “The student ability to prioritize; the student being able to decide who should be cared for first.” Other comments were the ability to know what to do and make an effective clinical intervention.

Summary

In Chapter 4, the research setting, participants' demographics, data collection, data analysis, evidence of trustworthiness, and study results were discussed. Thirteen participants who met the inclusion criteria for the study were recruited and interviewed. The interview protocol questions were used for each interview, with additional probing questions to obtain information-rich responses from the study participants. The interviews were audio-recorded and transcribed by me. The transcribed interviews were manually coded, three themes and ten subthemes were generated. The themes were using a teaching strategy, using multiple strategies, the outcome of using CTTS. The interpretation of the findings will be discussed in Chapter 5.

Chapter 5: Discussion, Conclusion, and Recommendations

The purpose of this interpretative phenomenological study was to understand the lived experiences of nurse educators who used CT strategies in a baccalaureate nursing program to develop CT skills in nursing students. In addition, I sought to understand the nurse educator's perception of the success of the teaching strategies used to promote CT abilities in their students and the rationale for using them. Data were collected over 6 weeks via telephone interviews with 13 nurse educators who taught in a baccalaureate nursing program on the East Coast. This study identified the types of teaching strategies used by these nurse educators, the educators' perception of the success of their strategies, and the rationale for using them. This chapter includes the interpretation of findings, limitation of the study, recommendations, and implications.

Interpretation of the Findings

Comparison with the Literature

The interview responses from the nurse educators confirmed the information obtained from the literature review. In describing their experiences, nurse educators identified the use of various teaching strategies such as case studied, simulation, lecture, concept map, questioning and role play to facilitate the development of student CT abilities. Additionally, the study findings demonstrated that CT abilities were an essential outcome of using CCTS

Theme 1: Using a Variety of Teaching Strategies

All participants reported that they used different types of CTTS to improve students' CT abilities. This was evident in the literature as well. Chün-Chin Lin et al.,

2017), in a qualitative study, explored active teaching strategies that included concept mapping, question-and-answers, and real-life case studies to promote student CT abilities in a baccalaureate nursing program. This study's findings extended knowledge of how CTTS supports the transfer of theoretical concepts to the clinical situation. The literature confirms that simulation experiences are designed to bridge theoretical knowledge and stimulate CT skills in making clinical decisions for patient care (Jeffries 2005; Lestander et al., 2016).

Theme 2: Using Multiple Strategies

The theme of selecting multiple strategies was verbalized by 90% of the participants in describing the combinations of strategies used to facilitate student learning and the rationale for selecting the strategies used for a specific situation. Nurse educators confirmed the rationale for selecting the teaching strategies used for developing student CT abilities as based on the situation, learning objectives, and the content being taught. Nurse educators used multiple factors such as a learning style, culture, and the ability to connect the information as a rationale for selecting the CTTS used to facilitate the development of student CT skills. Additionally, the program's progression was also a rationale for selecting the type of CTTS used by the nurse educator. The literature confirms the use of multiple and innovative strategies to support student CT abilities. Ward and Morris (2016) developed a teaching model titled, "Thinking Like a Nurse Initiative." The objective of the model was to empower nurse educators to select teaching strategies situated within the nursing practice context for the nursing student at different levels of the nursing program.

Theme 3: Outcomes of Using CTTS

Outcomes of Using CTTS were evident in the nurse educators' responses. The majority (90%) of the participants identified the demonstration of CT abilities as an outcome of using CTTS. The demonstration of CT skills helps to improve clinical competencies, program, and student outcomes. Nurse educators expressed student confidence, ability to analyze, make a practical clinical decision and demonstrate caring and compassion behaviors as qualities that described clinical competencies. Using CTTS, as identified by the nurse educator in this study, improves program outcomes, student academic performance, and student scores on the nursing licensure examination. These findings are consistent with the literature; CT is a valid predictor of program completion, student success, and professional competencies (Pitts et al., 2015). This study's findings enhance the scientific knowledge on the outcomes of using CTTS to facilitate student critical abilities and how these skills improve clinical competencies, program and student outcomes.

Findings and Conceptual Framework

The conceptual framework that guides this study is the CLT. The CLT is rooted in assumptions about learners and how they acquire knowledge. The fundamental precept of constructivism is that it is a learning process in which meaning is constructed and interpreted from the perspective of the meaning or sense people make of their experience (Mosca, 2017; Thomas et al., 2014). Nurse educators use strategies that support the students' learning abilities to construct new knowledge and develop CT abilities. The student's ability to construct new knowledge, transfer theoretical concepts to the clinical

situation, and provide quality, safe patient care is a positive indicator that supports the development of CT abilities (Stinson, 2017). The finding from this study correlates with the CLT; nurse educators used various teaching strategies to engage the student in learning, facilitate student thinking, and facilitate the transfer of theoretical concepts to clinical situations. In the constructivist learning environment, the educator's role is to facilitate the types of social environments in the classroom or clinical settings that stimulate learners to construct new knowledge through practice (Buckley, Archibald, Hargraves, & Trochim, 2015).

Limitations of the Study

A significant limitation to the study is the use of purposeful sampling of nurse educators from baccalaureate programs in a region with different types of nursing programs; this is not a representation of the area's schools of nursing. The findings from this study may not represent nurse educators' experience from an associate degree program. As a novice researcher, I have limited experience in analyzing qualitative data. My committee members mentored me throughout the process of completing the study. Stepp (2019) stated that the researcher's familiarity with the phenomenon of interest often makes qualitative data interpretation susceptible to bias. I use reflexivity continually during data collection and analysis to limit the extent to which my limited experience, bias, and beliefs may influence the process.

Recommendations

The study findings identified the in-depth lived experience of nurse educators who used CTTS in facilitating the development of their student's CT abilities. Nurse

educators reported using various teaching strategies that facilitates the development of students' CT skills and improve student learning outcomes. Further study is recommended to examine if there is a relationship between the specific CTTS teaching strategies, CT skills, and learning outcomes in students in baccalaureate nursing programs. Nurse educators also reported selecting multiple strategies based on the teaching content, learning objectives and student level in the nursing program. Studies are recommended to further determine the extent to which specific teaching strategies are more effective in developing CT skills for students at different levels of the nursing program. Additionally, nurse educators identify that using CTTS to facilitates the development of students' CT skills help to improve clinical competencies, program and student outcomes. Quantitative study is recommended to determine the relationship among specific CTTS, clinical competencies and nursing program outcomes.

Implications for Positive Social Change

This study result has implications for positive social change for four groups, nurse educators, students, healthcare institutions, and consumers. The study results identified nurse educators' use of a variety of CTTS, the rationale for selecting teaching strategies, and the outcomes of CTTS on the students' CT skills. The study result contributes to nurse educators' in-depth understanding of using CTTS and how it influences selecting CTTS. The result can be used to develop professional development activities for faculty to enhance their knowledge of appropriate CTTS to facilitate student CT abilities to achieve desired learning outcomes. The results of the study identify CTTS strategies used by educators that have the potential to facilitate students' engagement in active learning,

promote self-confidence, improve program and student outcomes, and provide safe quality care for the healthcare consumers (Brown, 2014). Increasing patient safety and quality care are positive indicators for healthcare institutions (Chenjuan, Shin & Jingling, 2018). Graduate nurse with improved clinical competencies has fewer chances of making nursing care errors, resulting in reduced operating costs for the healthcare institutions and improved patient outcomes.

Conclusion

Healthcare employers reported that 80% of graduate nurses lack clinical decision-making skills for clinical practice (Munteen, 2015). Nurse educators are continuously challenged with developing their students' CT abilities in the baccalaureate nursing programs. (Ward & Morris, 2016). The purpose of this study was to understand nurse educators' lived experiences who used CTTS in a baccalaureate nursing program to facilitate CTA development in nursing students. Additionally, the rationales for using the selected strategy and their perceptions of the teaching strategies' success were also explored. Nurse educators share their experiences as using a variety of teaching strategies that include case studies, simulation, lecture, and role play. Nurse educators in their response used CTTS to engage student in learning, to facilitate thinking, to increase student knowledge, and to facilitate the transfer of theory to clinical settings. Nurse educators expressed the rationale for selecting multiple strategies as based on the situation, multiple factors multiple factors and student progression in the program. In addition, nurse educators expressed the perception of the success of using CTTS as improved program and student outcomes. This study has extended the knowledge about

the live experiences of nurse educators who used CTTS to facilitate student CTA, the reasons for selecting a teaching strategy and the perception of the success of using CTTS. Studies are recommended to further determine the relationship between the use of specific teaching strategies to develop CT and student and program outcomes.

References

- American Psychological Association (2010). *Publication manual of the American Psychological Association* (6th ed.). American Psychological Association.
- AL -Dorsey, R., Katsinas, P., & Maddox J. (2014) The impact of residency programs on new nurses' graduate's decision making and leadership skills: *A systemic review*. doi 10.1016/j.nedt.2013.10.006
- Agbedia, C., & Ogbe, J. (2014). Critical thinking: Issues in nursing education and practice. *International Journal of Advanced Nursing Studies*, 3(1), 13-17. <http://doi: 10.14419/ijans. v3i1.1201>
- Adib-Hajbaghery, M., & Sharifi, M., 2017. Effect of simulation training on the development of nurses and nursing students' critical thinking: a systematic literature review, *Nurse Educ. Today*50, 17–24. doi.org/10.1016/j.nedt.2016.12.011
- Alamrani, M. H., Alqahtani, S. S., & Salem, & O. A. (2018). Comparing the effects of simulation-based and traditional teaching methods on the critical abilities and self-confidence of nursing students. *Journal of Nursing Research*, 26(3).152–157. doi.org/10.1097/jnr.0000000000000231
- American Association of Colleges of Nursing. (2017). *Fact sheet: The impact of education on nursing practice*. <https://www.aacnnursing.org>
- Andreou, C., Papastavrou, E., & Merkouris, A., (2014). Learning styles and critical thinking relationship in baccalaureate nursing education: a systematic review. *Nurse Education Today*, 34, 362–371. <https://doi.org/10.1016/j.nedt.2013.06.004>

- Anney, V. N. (2015). Ensuring the quality of the findings of qualitative research: Looking at trustworthiness criteria. *Journal of Emerging Trends in Educational Research and Policy Studies*, 5(2), 272-281. <http://hdl.handle.net/123456789/256>
- American Association of Colleges of Nursing (AACN). (2019). AACN essentials. <https://www.aacnnursing.org/Education-Resources/AACN-essentials>
- Austin, Z., & Sutton, J, (2014) Qualitative research: Getting started. *The Canada Journal of Hospital Pharmacy*, 67(6), 436–440. doi: 10.4212/cjhpv67i6.1406
- Berger, P. & Luckman, T. (1966). *The social construction of reality. A Treatise in the Sociology of Knowledge*. Anchor Books.
- Byrnes, J. P. (2008). *Cognitive development and learning in instructional contexts* (3rd ed.). Prentice Hall/Pearson.
- Brown, B. L. (2014). *Effects of teaching critical thinking within an integrated nursing curriculum*. (Publication No 3609741). (Doctoral dissertation, Walden University). Available from Proquest Dissertation and Theses Database Global.
- Bouchaud, M., Brown, D., & Swan, B.A. (2017). Creating a new educational paradigm to prepare nurses for the 21st century. *Journal of Nursing Education and Practice*, 7(10), 85. doi.org/ 10.5430/jnep. v7n10p27
- Booth, T. L., Emerson, C. J., Hackney, M. G., & Souter, S. (2016). Preparation of academic nurse educators. *Nurse Education in Practice*, 19, 54-57. <http://doi.org/10.1016/j.nepr.2016.04.006>
- Buckley, J., Archibald, T., Hargraves, M., & Trochim, W.M. (2015). Defining and teaching evaluative thinking: Insights from research on critical thinking.

American Journal of Evaluation, 36(3), 375-388. doi.org/:

10.1177/1098214015581706

Bruner, J. (1996). *The culture of education*. Harvard University Press. Campbell, F. B.

(2017). *Assessment of critical thinking as a predictor of success in completion of an associate degree respiratory care program*. (Publication No10689810).

(Doctoral Dissertation Northeastern University) Available from ProQuest Dissertations and Theses Global.

Castleberry A., & Nolen, A. (2018). Thematic analysis of qualitative research data: Is it as easy as it sounds? *Current in Pharmacy Teaching and Learning*, 10, 807-819.

<http://doi.org/10.1016/j.cptl.2018.03.019>

Carvalho, D. P. S. R. P., Azevedo, I. C., Cruz, G. K. P., Mafra, G. A. C., Rego, A. L. C.,

Vitor, A. F., & Ferreira Júnior, M. A. (2017). Strategies used for the promotion of critical thinking in critical thinking in nursing undergraduate education A

systematic review. *Nurse Education Today*, 57, 103–107.

[doi.org/doi10.1016/j.nedt.2017.07.010](http://doi.org/10.1016/j.nedt.2017.07.010)

Chan Z., (2013). A systematic review of critical thinking in nursing education. *Nurse*

Education Today, 33(3), 236-240. <http://dx.doi.org/10.1016/j.nedt.2013.01.007>

Chan, Z., (2017). A qualitative study of using concept in problem-based learning. *Nurse*

Education Practice 24, 70– 76. <https://doi.org/10.1016/j.nepr.2017.04.008>

Chen, H., Jensen, F., Gary Measonm. N., & DawnNichols. (2018). Evaluating student

cultural competence in an associate science in nursing program. *Teaching and*

Learning in Nursing, 13(3), 161-167. doi.org/10.1016/j.teln.2018.03.005

- Chenjuan, M., Shin, H., & Jingling, S. (2018). Inter- and intra-disciplinary collaboration and patient safety outcomes in United States acute care hospital units: a cross-sectional study. *International Journal of Nursing Studies*, 85, (1)1-6.
<http://dx.doi.org/10.1016/j.ijnurstu.2018.05.001>
- Chun-Chih, L., Lin, Chin-Yen, H., I.-Ju, P., & Li-Chin, C. (2015). The teaching–learning approach and critical thinking development: A Qualitative Exploration of Taiwanese nursing student Nursing Students. *Journal of Professional Nursing*, 31(2), 149-57. <http://doi.org/10.1016/j.profnurs.2014.07.001>
- Carter, A., Creedy, D., & Sidebotham, M. (2016). Efficacy of teaching methods used to develop Critical thinking in nursing and midwifery undergraduate students: A systematic review of the literature. *Nurse Education. Today* 40, 209–218.
<https://doi.org/10.1016/j.nedt.2016.03.010>
- Collins, K., M., Onwuegbuzie, A. J., Johnson, R. B., & Frels, R. K. (2013). Practice notes: Using debriefing interviews to promote authenticity and transparency in mixed research. *International Journal of Multiple Research Approaches*, 7(2), 271-283. <http://dx.doi.org/10.1016/j.nedt.2016.03.010>
- Ching-Yu, C., Shwu-Ru, L., Tsui-Hua, H., Mei-Yu, P., Hsiu-Chen, L., Chia-Hao, C. (2014). Preparing nursing student to be competent for future professional practice applying the team-based learning -teaching strategy. *Journal of Professional Nursing*, 30(4), 347-356. <https://doi.org/10.1016/j.profnurs.2013.11.005>
- Creswell J. W. (2014) *Educational research: planning, conducting, and evaluating quantitative and qualitative research* (5th ed). Pearson Education.

- Creswell, J.W. & Poth, C.N. (2018) *Qualitative inquiry and research design choosing among five approaches*. (4th ed.). SAGE Publications.
- Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research* (3rd ed.). SAGE Publications.
- Cunningham, K. B. (2014). Social research design: framework for integrating philosophical and practical elements. *Nurse Researcher*, 22(1), 32–37.
https://doi.org/10.7748/nr.22.1.32_e1276
- Cypress, B. (2018). Qualitative research methods, a phenomenological focus *dimensions of critical care nursing*, (37) 6,302-309.
<http://doi.org/10.1097/DCC.0000000000000322>
- Dewey, J. (1938). *Experience and education*. Macmillan Publication.
- Denton, D.W. (2012). Enhancing instruction through constructivism, cooperative learning, and cloud computing. *Tech Trends*, 56(4), 34-41.
<https://doi.org/10.1007/s11528-012-0585-1>
- Denzin, N. K., & Lincoln, Y. S. (2013). *Collecting and interpreting qualitative materials*. (4th ed.). SAGE Publication.
- Dennick R. (2016). Constructivism: reflections on twenty-five years teaching the constructivist approach in medical education. *International Journal of Medical Education*, 7, 200–205. <https://doi.org/10.5116/ijme.5763.de1>
- Duff, B. (2013). Creating a culture of safety and coaching clinicians to competence. *Nurse Education Today*, 33(10), 1108. <https://doi.org/10.1016/j.nedt.2012.05.025>
- Duffy, T. M., & Cunningham, D. J. (1997). Constructivism: implications for the design

- and delivery of instruction. In D. H. Jonassen (Ed.), *Handbook of research for educational communications and technology* (pp. 170–198). Macmillan.
- Dong, R., Yang, X., Xing, B., Zou, Z., Zheng, Z., & Xie, X., (2015). Use of concept maps to promote electrocardiogram diagnosis learning in undergraduate medical students. *International Journal of Clinical Experimental Medicine*, 8 (5), 7794–7801.
- Duncan, K. & Schulz, P. S. (2015). Impact of change to a concept-based baccalaureate nursing curriculum on student and program outcomes. *Journal of Nursing Education*, 53(3), 16-20. doi.org/103928/01484834-2015218-07
- Eisner, E. (1991). *The enlightened eye. Qualitative inquiry and the enhancement of educational practice*. Teacher College Press.
- Eisenhart, M. (2014). *Cultural perspectives in science education. In hand book of research on science education*. Routledge Press.
- Elmers, C. R. (2016). *Nursing faculty experiences with innovative learning strategies: A qualitative study* (Publication No10144273). (Doctoral Dissertation, Capella University). Available from ProQuest Dissertation and Theses Global.
- Ellis, D. M. (2015). The role of nurse educators' self-perception and beliefs in the use of Learner-centered teaching in the classroom. *Nurse Education in Practice*, 16(1),66-70. //doi.org/10.1016/j.nepr.2015.08.011.
- Facione, P. (1990). *Critical thinking: A statement of expert consensus for purposes educational assessment and instruction*. American Psychological Association.
- Facione, P. A. (2015). Critical thinking: What it is and why it counts. insight Assessment,

1-29. <http://www.insightassessment.com>

Garner, C., Bethel, S., Pruitt, R. (2013). A community summit on enhancing the nursing student. *Nurse Leader*, (11) 4, 57-61. <https://doi.org/10.1016/j.mnl.2013.04.005>

Gaffney, T., Hatcher, B., Milligan, R., & Trickey, A. (2016). Enhancing patient safety: factors influencing medical error recovery among medical surgical nurse. *The online Journal of nursing issue (21) 3, 6*. [https://doi: 0.3912/ojin.vol21in03man06](https://doi.org/10.3912/ojin.vol21in03man06)

Garwood, J. K., Ahmed, A. H., & McComb, S. A. (2018). The effect of concept map on undergraduate nursing students' critical thinking. *Nursing Education Perspectives*, 39(4), 208–214. [http://doi- /10.1097/01.NEP.0000000000000307](http://doi.org/10.1097/01.NEP.0000000000000307)

Griffiths, B. (2018). Preparing tomorrow's nurses for collaborative quality care through simulation. *Teaching and Learning in Nursing*, 13, 46-50. [http://doi: org/10.1016/j.teln.2017.08.005](http://doi.org/10.1016/j.teln.2017.08.005)

Glasgow, M.S., Dunphy, L. M., & Mainous, R. O. (2010). Innovative nursing educational curriculum for the 21st Century. *Nursing Education Perspectives (National League for Nursing)* 31(6), 355-357.

Gholami, M., Moghadam, P. K., Mohammadipoor, F., Tarahi, M. J., Sak, M., Toulabi, T., & Pour, A. H. (2016). Comparing the effects of problem-based learning and the traditional lecture method on critical thinking skills and metacognitive awareness in nursing students in a critical care nursing course. *Nurse Education Today*, 45, 16-21. [http://doi: org/10.1016.j.nedt.2016.06.007](http://doi.org/10.1016/j.nedt.2016.06.007)

Jones, C. (2009). Innovations at the intersection of academia and practice: Facilitating

graduate nursing students' learning about quality improvement and patient safety.

Quality Management in health care, (18) 3, 158-64.

<http://dx.doi.org/10.1097/QMH.0b013e3181aea1f0>

Jung, D., Lee, S., Kang, S., & Kim, J. (2017). Development and evaluation of clinical simulation for new graduate nurses: A multisite pilot study. *Nurse Education Today*, (49),84-89. <http://dx.doi.org/10.1016/j.nedt.2016.11.010>

Hardicre, J. (2014). An overview of research ethics and learning from the past. *British Journal of nursing* 23(9), 483-486. <https://doi.org/10.12968/bjon.2014.23.9.483>

Harrison, H., Birks, M., Franklin, R., & Mills, J. (2019). An assessment continuum: How healthcare professionals define and determine practice readiness of newly graduated registered nurses. *Collegian* (27) 2,198-206.
<http://dx.doi.org/10.1016/j.colegn.2019.07.003>

Hagell, P., Edfors, E., Hedin, G., Westergren, A., & Hammarlund, C.S. (2016). Group concept mapping for evaluation and development in nursing education. *Nurse Educ. Pract.*20, 147– 153. <https://doi.org/10.1016/j.nepr.2016.08.006>

Hanson, J.L., Balmer, D. F., & Giardino, A. P. (2011). Qualitative research methods for medical educators. *Academic Pediatrics* (10) 5. 375-386.
<https://doi.org/10.1016/j.acap.2011.05>

Heidegger, M. (1927/2011). *Being and time*. (J. Macquarrie & E. Robinson, Trans.). Blackwell Publishing Inc.

Hickey, V., Unruh, L. Y., Newhouse, R., Koithan, M., Johantgen, M., Hughes, R. G., Haller, K., & Lundmark, V. (2014). Credentialing: the need for a national

research agenda. *Nursing outlook* (62) 119-127.

<http://dx.doi.org/10.1016/j.outlook.2013.10.011>

Houghton, C., Casey, D., Shaw, D., Murphy, K. (2010). Ethical challenges in qualitative research: examples from practice. *Nurse Researcher*, 18(1), 15-25.

[http://doi: 10.7748/nr2010.10.18.1.15.c8044](http://doi:10.7748/nr2010.10.18.1.15.c8044)

Horntvedt, M.T., Nordsteien, A., Fermann, T., & Severinsson, E., (2018). Strategies for teaching evidence-based practice in nursing education: a thematic literature review.

BMC Medical Education, 18(1), 172. <https://doi.org/10.1186/s12909-018-1278-z>

Jonassen, D. H., Davidson, M., Collins, C., Campbell, J., & Haag, B. B. (1995).

Constructivism and computer-mediated communication in distance education. *The American Journal of Distance Education*, 9(2), 7-26.

<https://doi.org/10.1080/08923649509526885>

Hsieh, S. I., Hsu, L.L. (2013). An outcome bases evaluation of nursing competency of baccalaureate senior nursing students in Taiwan. *Nurse Education Today*, (33)12.

1536- 1545. [http://doi: 10.1016/j.nedt.2013.01.012](http://doi:10.1016/j.nedt.2013.01.012)

Jung, D., Lee, S., Kang, S., Kim, J. (2017). Development and evaluation of clinical simulation for new graduate nurses: A multisite pilot study. *Nurse Education Today*, (49), 84-89. [http://doi: 10.1016/j.nedt.2016.11.010](http://doi:10.1016/j.nedt.2016.11.010)

[http://doi: 10.1016/j.nedt.2016.11.010](http://doi:10.1016/j.nedt.2016.11.010)

Kaddoura, M., Vandyke, O., Smallwood, C., & Gonzalez, K. M. (2016). Perceived benefits and challenges of repeated exposure to high fidelity simulation experiences of first-degree accelerated bachelor nursing students. *Nurse Education Today*, 36, 298-303. [http://doi: org/10.1016/j.nedt.2015.07.014](http://doi:org/10.1016/j.nedt.2015.07.014).

- Kong, L. N., Qin, B., Zhou, Y., Mou, S., & Gao, H. M. (2014). The effectiveness of problem-based learning on development of nursing students' critical thinking: A systematic review and meta-analysis. *International Journal of Nursing Studies*, *51*, 458-469. <http://doi.org/10.1016/j.ijnurstu.2013.06.009>
- Knowles, M., Holton, E. F., & Swanson, R. A. (2005). *The adult learner: The definitive classic in adult education and human resource development* (6th ed.). Elsevier Publication.
- Kubin, L., Fogg, N. (2010). Back- to basic boot camp: an innovative approach to competency assessment. *Journal of Pediatric Nursing*, *25*(1). 28- 32. <https://doi.org/10.1016/j.pedn.2008.07.004>
- Leung, L. (2015). Generalizability in qualitative research. *Journal of Family Medicine and Primary Care Prime*, *4*(3), 324–327. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4535087/>
- Levitt, H. M., Motulsky, S. L., Wertz, F. J., Morrow, S. L., & Ponterotto, J. G. (2017). Recommendations for designing and reviewing qualitative research in psychology: Promoting methodological integrity. *Qualitative Psychology*, *4*(1), 2–22. <https://doi.org/10.1037/qup0000082>
- Lynn, E. Brady, M. Larson, J. & Perkins, B. (2012). Transforming nursing education: The NLN education competencies. *Nursing Education Perspectives*, *(23)*3, 214. http://journals.lww.com/neonline/Citation/2012/05000/Transforming_Nursing_Education_The_NLN_Education.23.aspx
- Linthacum, M. D. (2011). *Teaching strategies that promote critical thinking in associate-*

degree Nursing students: Perceptions of associate-degree nursing educators.

(Publication No. 8975342120) [Doctoral Dissertation, Capella University]

Available from ProQuest Dissertations and Theses Global.

Lincoln, Y.S., & Guba, E. (1985). *Naturalistic inquiry*. SAGE Publication.

Lofland, J., Snow, D., Anderson, L., & Lofland, L. (2006). *Analyzing social settings: A guide to qualitative observation and analysis* (4th ed.). Wadsworth Publishing Company.

Mangena, A., & Chabeli, M. (2005). Strategies to overcome obstacles in the facilitation of critical thinking in nursing education. *Nurse Education Today Vol. (25) 4*, 291-298. <https://www.ncbi.nlm.nih.gov/pubmed/15896414>

Maxwell, J.A. (2018). Qualitative analysis. In B. Frey, ed. *The SAGE encyclopedia of educational research, measurement, and evaluation* (Vols. 1-4). SAGE Publication Inc. [http://doi: 10.4135/9781506326139](http://doi:10.4135/9781506326139)

Martin, D., Godfrey, N., & Walker, M. (2015). The baccalaureate big 5: what Magnet hospitals should expect from a baccalaureate generalist nurse. *The Journal of Nursing Administration, 45*(3), 121–123. <https://doi-10.1097/NNA.0000000000000168>

McEwin, M., & Willis, E. M. (2014). *The theoretic basis for nursing* (4th Ed.). Lippincott Williams & Wilkins.

Merriam, S.B., Caffarella, R.S., & Baumgartner, L.M. (2007). *Learning in adulthood: A comprehensive guide*. (3rd ed.). John Wiley & Sons.

Merriam, S. B. (2009). *Qualitative research: A guide to design and implementation*. (3rd

ed.). Jossey-Bass.

- Missen, K., McKenna, L., Beauchamp, A., & Larkins, J. (2016). Qualified nurses' rate new nursing graduates as lacking skills in key clinical areas. *Journal of Clinical Nursing, 25*(15–16), 2134-2143. <http://doi:10.1111/jocn.13316>
- Moallem, M. (2001). Applying constructivist and objectivist learning theories in the design of a web-based course: Implications for practice. *Educational Technology & Society, 4*(3),113-125. <https://pdfs.semanticscholar.org>
- Moustakas, C. (1994). *Phenomenological Research Methods*. SAGE Publications. Inc.
- Mosca, M. (2017). Using constructivist learning theory to create and implement pilot online dosage calculation module. *Journal of the New York State Nurses Association, 45*(1), 44-49.
- Munteen, W. (2015). *Nursing clinical decision-making: A literature review*.
https://www.ncsbn.org/Clinical_Judgment_Lit_Review_Executive_Summay.pdf
- National League for Nursing (2007). *Excellence model*.
<http://www.nln.org/excellence/coe/index.html>
- Nelson, A. E. (2017). Methods faculty use facilitates nursing student's critical thinking. *Teaching and Learning in Nursing, (12)*62-66.
<https://doi.org/10.1016/j.teln.2016.09.007>
- Noble, H., & Smith, J. (2016). Phenomenological approach in qualitative research. *Evidence-Based Nursing, 18*(2), 34–35. doi:10.1136/eb-2015-102054.
- Noon, E. (2018). Interpretative phenomological analysis: An Appropriate Methodology for Educational Research? *Journal of Perspectives in Applied Academics,*

Practice, 6(1). [http://doi: 10.14297/jpaap.v6i1.304](http://doi:10.14297/jpaap.v6i1.304)

- NLN. (2017). *Program outcomes and competencies for graduate academic nurse educators Preparation*. [http://www.nln.org/docs/default-source/professional-development-programs/program-outcomes-and-competencies2.pdf? Sf](http://www.nln.org/docs/default-source/professional-development-programs/program-outcomes-and-competencies2.pdf?Sf)
- Oliveira, L. Diaz, L., Carbogim. F., Rodrigues, A., & Puschel, V. (2016). Effectiveness of Teaching strategies on the development of critical thinking in undergraduate nursing Student. *Revista Da Escola De Enfermagem Da*, 50(2), 355-264.
<http://dx.doi.org/10.1590/S0080-623420160000200023>
- Origue, S. B., & McCarthy, M. A. (2015). Critical thinking and the use of nontraditional instructional methodologies. *Journal of Nursing Education*, 54(8), 455-459.
[doi:10.3928/01484834-20150717-06](https://doi.org/10.3928/01484834-20150717-06)
- Ormrod, J. E. (2016). *Human learning: Principles, theories and educational applications*. (7th ed.). Pearson Publication.
- Padgett, J., Gossett, K., Mayer, R., Chien, W., & Turner, F. (2017). Improving safety through high reliability organizations. *The Qualitative Report*, 22(2), 410–425.
<https://nsuworks.nova.edu/tqr/vol22/iss2/4>
- Patton, M. Q. (2015). *Qualitative research and evaluation methods*. (4th ed.). Thousand Oaks, CA: SAGE Publications.
- Papp, K. K., Huang, G. C., Lauzon Clabo, L. M., Delva, D., Fischer, M., Konopasek, L., & Gusic, M. (2014). Milestones of critical thinking: a developmental model for Medicine and nursing. *Academic Medicine: Journal of the Association of American Medical Colleges*, 89(5), 715- 720.

<https://doi:10.1097/ACM.0000000000000220>

Przybyl, H., Androwich, I., & Evans, J. (2015). Using high-fidelity simulation to assess knowledge, skills, and attitudes in nurses performing CRRT. *Nephrology Nursing Journal*, 42(2), 135-147.

Peixoto, T. A., & Peixoto, N. M. (2017). Critical thinking of nursing students in clinical teaching: an integrative review. *Revista de Enfermagem*, 4(13), 125-138.

<http://doi.10.12707/RIV16029>

Piaget, J. (1971). *Biology and Knowledge*. University of Chicago Press.

Pitts, V., Powis, P., Levett-Jones, T., Hunter, S. (2015). The influence of critical thinking skills on performance and progression in a pre-registration nursing program.

Nurse Education Today, 35(1),125-131.

<https://doi.org/10.1016/j.nedt.2014.08.006>

Ravitch, S. M., & Carl, N. M. (2016). *Qualitative research: bridging the conceptual, theoretical, and methodological*. SAGE Publications Inc.

Rajesh, K. S. (2017). Emerging innovative teaching strategies in nursing. *JOJ Nurse Health Care*, 1(2), 555-558. <https://doi.org/0.19080/JOJNHC.2017.01.555558>

Robson, C. (2011). *Real world research* (3rd ed.). John Wiley Blackwell & Sons.

Rubin, H. J. & Rubin, I. S. (2012). *Qualitative interviewing: The art of hearing data* (3rd ed.). SAGE Publications Inc.

Rudestam, K. E., & Newton, R. R. (2015). *Surviving your dissertation: A comprehensive guide to content and process* (4th Ed.). SAGE Publication Inc.

Saldaña, J. (2016). *The manual for qualitative researchers* (3rd. ed.). SAGE Publications

Inc.

Samuel. A., Konopasky, A., Schuwirth, L.W. T., King, S. M., & Dunrning, S. J. (2020).

Five principles for using educational theory. *Academic Medicine*, 95(4), 518-522.

[http://doi: 10.1097/ACM.0000000000003066](http://doi.org/10.1097/ACM.0000000000003066)

Schrock, J., & Benko, S. (2015). *Using fundamental concepts and essential questions to*

promote critical thinking. Faculty Focus. [http://](http://www.facultyfocus.com/articles/instructional-design/using-fundamental-conceptessential-questions-promote-critical-thinking/)

[www.facultyfocus.com/articles/instructional-design/using-fundamental-](http://www.facultyfocus.com/articles/instructional-design/using-fundamental-conceptessential-questions-promote-critical-thinking/)

[conceptessential-questions-promote-critical-thinking/](http://www.facultyfocus.com/articles/instructional-design/using-fundamental-conceptessential-questions-promote-critical-thinking/)

Scheffer, B. K., & Rubenfeld, M. G. (2000). A consensus statement on critical thinking in

nursing. *Journal of Nursing Education*, 39, 352–359.

<http://dx.doi.org/10.3928/0148-4834-20001101-06>

Sharma, R.K. (2017). Emerging innovative teaching strategies in nursing. *JOJ Nurse*

HealthCare. 1(2), 1-3. <http://dx.doi.org/10.19080/JOJNHC.2017.01.555558>

Shin, H., Ma, H., Park, J., Ji, E. S., & Kim, D. H. (2015). The effect of simulation

courseware on critical thinking in undergraduate nursing students: multi-site pre

post study. *Nurse Education Today*, 35(4), 537-542.

<https://doi.org/10.1016/j.nedt.2014.12.004>

Shelton, C. (2016). Students who developed logical reasoning skills reported improved

confidence in drug dose calculation: Feedback from remedial maths classes.

Nurse Education Today, 41, 6–11. <https://doi.org/10.1016/j.nedt.2016.03.007>.

Shudak, N.J. (2018). *Phenomenology.* In B. Frey, ed. *The SAGE encyclopedia of*

educational research, measurement, and evaluation (Vols. 1-4). SAGE

Publication. [http:// doi: 10.4135/9781506326139](http://doi.org/10.4135/9781506326139).

Slater, J.R. (2017). Social constructivism. In M. Allen, ed. *The Sage encyclopedia of communication research methods* (Vols. 1-4). Sage Publication Inc.

[http://dx.doi.org /10.4135/9781483381411](http://dx.doi.org/10.4135/9781483381411).

Smith, A. Y. (2015). *Attitude, subjective norm, and perceived behavioral control indicators for nurse educators' intention to use critical thinking strategies: A structural equation model analysis*. (Publication No1844148319.). [Doctoral Dissertation, Andrew University]. Available at ProQuest Dissertations & Theses Global.

Smith, J. A., Flowers, P., & Larkin, M. (2009). *Interpretive phenomenological analysis: Theory, method, and research*. SAGE Publications Inc.

Stinson, K. J. (2017). Benner's Framework for clinical- decision making in the critical making care environment. *Nursing Science Quarterly*, 30 (1), 52-57.

<http://doi.org/10.1177/0894318416680536>

Stepp, R. (2019). Nurse executives lived experienced of incorporating caring leadership. (Publication No 13901845) [Doctoral dissertation, Walden University]. Available at ProQuest dissertation and Theses Global.

Sullivan, E.A. (2012). Critical thinking in clinical nurse education: Application of Paul's model of critical thinking. *Nurse Education in Practice*, 12(6), 321-327.

[http://dx.doi.org. /10.1016/j.nepr.2012.03.005](http://dx.doi.org./10.1016/j.nepr.2012.03.005)

Thomas, A., Menon, A., Boruff, J., Rodriguez, A. M., & Ahmed, S. (2014). Applications of social constructivist learning theories in knowledge translation for healthcare

professionals: a scoping review. *Implementation Science*, 9(1). <http://doi.org/10.1186/1748-5908-9-54>

The Belmont Report (1979): *Ethical Principles and Guidelines for the Protection of Human Subjects of Research*. <http://ethics.iit.edu/eelibrary/biblio/belmont-report-ethical-principles-and-guidelines-protection-human-subjects-research>

Toofany, S. (2008). Critical thinking among nurses. *Journal of nursing management*, (14), 28–31. doi.org/10.7748/nm2008.02.14.9.28.c6344

Tosterud, R., Hedelin, B., & Hall-Lord, M. L. (2013). Nursing students' perceptions of high and low fidelity simulation used as learning methods. *Nurse Education in Practice*, 13, 262-270. [doi: org/10.1016/j.nepr.2013.02.002](http://doi.org/10.1016/j.nepr.2013.02.002)

Van Rooyen, D.R. M, Jordan, P.J., Wilmaten, H., & Caka, E. M. (2018). A comprehensive review of guidelines facilitating transition of newly graduated nurses to professional Nurses. *Nurse Education in Practice*. (30)35-4.1. <http://doi.org/10.1016/j.nepr.2018.02.010>

Vagle, M. D. (2014). *Crafting Phenomenological Research*. Left Coast Press.

Van Manen, M. (1990). *Researching lived experience: Human science for action sensitive pedagogy*. State University of New York Press.

Vygotsky, L. S. (1978). *Mind in society*. Harvard University Press.

Ward, T. D., & Morris, T. (2016). Think Like a Nurse: A Critical Thinking Initiative. *The ABNF Journal: Official Journal of the Association of Black Nursing Faculty in Higher Education, Inc*, 27(3), 64-66.

Wahl, S. E., Thompson, A. M, (2013). Concept mapping in a critical care orientation

program: A pilot study pilot study to develop critical thinking decision – making skills in novice nurses. *Journal of Continuing Education*. (44).10.

<http://dx.doi.org/10.3928/00220124-20130916-79>

Webster, A. L. (2016). *Proposed preceptor program for new graduate nurses* (Publication No 10119048) [Doctoral Dissertation, Walden University]. Available at Proquest Dissertation and Theses Global.

Winters, C, & Echeverri, R. (2012). Teaching strategies to support evidenced-based practice. *Critical Care Nurse* (32). 3. 49-54.

<http://dx.doi.org/10.4037/ccn2012159>

Wise, V. (2013). *Competency of graduate nurses as perceived by nurse preceptors and nurse managers* (Publication No 3601306). [Doctoral Dissertation, Walden University] ProQuest Dissertations and Theses Global.

Wighus, M, Bjork, I. T. (2018). An educational intervention to enhance clinical skills learning experiences of nursing students and teachers. *Nurse Education in Practice*, (29), 143-149. <http://dx.doi.org/10.1016/j.nepr.2018.01.004>

Wosinski, J., Belcher, A. E., Durrenberger, Y., Allin, A. C., Stomacq, C., & Gerson, L. (2018). Facilitating problem-based learning among undergraduate nursing students: A qualitative systematic review. *Nurse Education Today*, 60, 67-74. <http://doi:org/10.1016/j.nedt.2017.08.015>

Yilmaz, K. (2013). "Comparison of quantitative and qualitative research traditions: epistemological, theoretical, and methodological differences." *European Journal of education*. <https://doi.org/10.1111/ejed.12014>

- Yue, M., Zhang, M., Zhang, C., & Jin, C. (2017). The effectiveness of concept mapping on development of critical thinking in nursing education: A systematic review and meta- analysis. *Nurse Education Today*, (52), 87-94. <http://doi:10.1016/j.nedt.2017.02.018>
- Wu, X. V., Enskar, K., Lee, C., & Wang, W. (2015). A systemic review of clinical assessment for undergraduate nursing students. *Nurse Education Today*, (35) 2, 347-358. <http://dx.doi.org/10.1016/j.nedt.2014.11.016>

Appendix A: Study Flyer

An academic research in support of a doctoral degree at Walden University.

Are you a nurse educator with a passion to stimulate critical thinking abilities & clinical competencies among your students? Share your experiences using different teaching strategies.

RESEARCH VOLUNTEERS NEEDED

You are invited to participate in a study on nurse educator's used of critical thinking teaching strategies; to facilitate the development of student critical thinking abilities.



If you are interested in participating in this study, please contact me via email at [REDACTED]

The Walden University Institutional Review Board, study # 10-07-20-0670183, has approved this study.

Help to share with any of your peers who you believe meet the criteria for this study

Study Criteria

- ❖ 18 years of age or older
- ❖ Nurse educator with three or more years of teaching experience
- ❖ Currently supervising or mentoring students in clinicals.

You will be asked to participate in a telephone interview for about 45 to 60 minutes long.

- ❖ \$25 Starbucks E- gift card will be provided for your volunteer effort after the completion of the interview.

Appendix B: Screening Questionnaire

Date _____

Participant Identification # _____

Hello, my name is Josephine Akintonde. I am doctoral study at Walden University. I am excited that you are interested in participating in the study. The purpose of the study is to examine the lived experiences of nurse educators who utilize critical thinking strategies in a baccalaureate-nursing program to develop critical thinking skills in nursing students.

This study will help me to gain an in-depth understanding of the common critical thinking teaching used by nurse educators and which teaching strategies best promote the development of student critical thinking abilities. To be sure you qualify I will ask you the following questions.

Are you 18 years of older	Yes	No
Do you have three years or more teaching experience	Yes	No
Do you currently supervise/mentor students in clinical	Yes	No
Do you understand English	Yes	No?
Will you be willing to be tape recorded during the interview?	Yes	No

Appendix C: Interview Protocol

Date of Interview:

Start Time:

End Time

Code of Interviewee:

Name of Interviewer:

Recording Mechanism:

Introduction to interview Section

Hello Mr. Ms. (Participant's Name), thank you agreeing to participate in this study. As I have already share with you, I will asking you questions about your experiences about the different types of teaching strategies that you have used to facilitate the development of critical thinking abilities, your rationale for the selected strategies and your perceptions of the student critical thinking behaviors. There is no right or wrong answer, and your responses are valuable to the success of this study. As a reminder the interview will be audio recorded, I will also be jotting some points while you are talking.

Question 1: What does critical thinking teaching strategies mean to you?

(a) Please describe the critical thinking teaching strategies you have utilized in developing the critical thinking abilities of your students.

(b) What are some of your experiences in using this teaching strategies?

Question 2: Discuss the rationale that supports the selection of the critical thinking teaching strategies, you utilize to develop the critical thinking abilities of your student.

(a) What are your perceptions of the success of the teaching strategies used to promote the student critical thinking abilities?

Question 3: What teaching strategies do you believe are used to promote student critical thinking and decision-making skills?

(a) Which of the teaching strategies do you believe best facilitated the

development of your student critical thinking abilities?

- (b) How will you describe critical thinking abilities?
- c) What are some of the characteristics of a student demonstrating critical thinking abilities for clinical decision making?
- (d) What do you educators were the most important outcomes of using critical thinking teaching strategies?
- (e) What do nurse educators perceive were the cognitive and affective skills that contribute to clinical competency?