

FROM NOVICE TO EXPERT TO NOVICE AGAIN:
STORIES OF NOVICE NURSE EDUCATOR TESTING EXPERIENCE

by

CARLA R. CRIDER

BECKY M. ATKINSON, COMMITTEE CHAIR

SUSAN J. APPEL

MARY I. GIVENS

ALICE L. MARCH

VIVIAN H. WRIGHT

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ABSTRACT

Relatively few nurse educators receive the formal pedagogical training needed to smoothly transition from the clinical nurse role to the nurse educator role (Cooley & De Gagne, 2016; especially as it relates to the evaluation and testing of student learning. The lack thereof creates a dissonance between clinical practice and academia (Cooley & De Gagne, 2016; Murray, Stanley, & Wright, 2014). Such dissonance often leaves the nurse educator in unfamiliar territory (Cooley & De Gagne, 2016) teaching and testing by trial and error (Schoening, 2013).

The transition from clinical nursing practice to academia is well documented in the qualitative nursing literature. An essential component of learning to be an educator is learning how to teach effectively and prepare useful student assessments. However, an extensive search of the literature revealed inadequate available research regarding how novice nurse educators learn the complex task of writing as well as the implementation and analysis of a valid, psychometrically sound exam. All questions used in this narrowly focused study were designed to elicit the personal experience, i.e., the story, of the expert-clinician-turned-novice-nurse-educator specific to the creation, administration, and analyses of exams during the first year of full-time teaching in an associate degree nursing (ADN) program.

Findings from this study point to the need for nurse education to develop an academic standard of care that would enhance nurse educators and provide great benefit for students. The information provided by this study may help the nursing profession as a whole and nursing education programs specifically to provide better mentorship and guidance for novice nurse educators.

DEDICATION

To Daniel, who spoiled me absolutely rotten long before this journey started and continues to do so, who cooked *every night* during the buildup to comprehensive exams so that I could work, write, cry, sleep ... write, cry, sleep, work ... cry, sleep, *ad nauseam* ... *for months, no, for years* including the dissertation work. I am my beloved's, and he is mine (Song of Solomon 6:3, New American Standard Bible). My husband of 36 years, God's gift to me, is my most passionate cheerleader. Thank you, Beloved. I cannot imagine my life without you.

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LIST OF ABBREVIATIONS

AACN	American Association of Colleges of Nursing
ACEN	Accreditation Commission for Education in Nursing
CINAHL	Cumulative Index to Nursing and Allied Health Literature
ERIC	Education Research Complete
HESI	Health Education Systems Incorporated
IA	Interactional analysis
IOM	Institute of Medicine
MCQ	Multiple-choice question
NCLEX-RN	National Council Licensure Examination for Registered Nurses
NCME	National Council on Measurement in Education
NLN	National League for Nursing
NNE	Novice Nurse Educator
NSCBN	National Council of State of Nursing
PCK	Pedagogical content knowledge
TPCK	Technological pedagogical content knowledge
WHO	World Health Organization

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CHAPTER I

INTRODUCTION

He who knows not and knows not he knows not; he is a fool — shun him. ~ I. A. Burton

National accrediting organizations such as the American Association of Colleges of Nursing (AACN), the Accreditation Commission for Education in Nursing (ACEN), the National Council of State Boards of Nursing (NCSBN), the National League for Nursing (NLN) and local agencies (i.e., individual hospitals, colleges, and universities) require nurse educators be clinically proficient in the areas in which they teach (AACN, 2018; ACEN, 2017; NCSBN, 2012). Many nurse educators hold a master's degree in nursing and a certification in a clinical practice specialty area such as nurse practitioner, certified nurse midwife, clinical nurse specialist, or certified registered nurse anesthetist. Many still pursue those educational routes before obtaining faculty positions. Others rise through the ranks of hospital management equipped with graduate degrees in healthcare administration or perhaps public health. Regardless, all are expert nurse clinicians before entering academia.

I experienced a relatively uneventful transition from expert obstetrics nurse to novice obstetrics nurse educator. I had the advantage of a bachelor's degree in music education and a master's degree in nursing education, both of which included pedagogical principles of curriculum, testing, measurement, and evaluation, and I had a mentor who was genuinely interested in my success. Still, I struggled on occasion during the first year. For example, my mentor and I were conducting a test review after a nursing foundations unit exam. Our students were rather vocal, aggressive even, regarding answers and rationales they thought incorrect or

unfair. One student went so far as to state, “Personally, I think that’s a stupid question.” In the privacy of our office suite, I exclaimed to my mentor, “What is *wrong* with these people? I’m going back to clinical nursing!” I subsequently developed a test-review speech, a pre-emptive shot across the bow as it were. I would, and still do, tell students the following: “I welcome lively discussion during the test review, but *Do Not tell me I’m wrong*. Tell me instead why your answer is more correct than my answer and then be able to prove it with evidence from the lectures, our textbooks, or the assigned articles.” I also developed a passion for constructing consistently well-written exams.

Multiple-choice questions (MCQ), also referred to as items, are a mainstay of testing in nursing education. Standardized tests such as the Health Education Systems Incorporated (HESI) RN Exit Exam, licensure tests such as the National Council Licensure Examination for Registered Nurses (NCLEX-RN, hereafter referred to as simply NCLEX), professional nursing specialty certification tests such as those from National Certification Corp, and other entities in which objective testing is a priority rely primarily on the MCQ format. MCQ formats currently used in nursing education are: (a) the correct answer, (b) the best answer, (c) the sentence completion answer, and (d) the multiple response answer which is a variation on the correct or best answer MCQ (Xu et al., 2016). A major strength of the MCQ format is the ease of use and efficiency (Pugh et al., 2016; Xu et al., 2016). MCQs can test a broad range of subject matter in relatively little time (Brown & Abdalnabi, 2017). Coupled with the ability on the part of instructors to grade quickly and objectively (Pate & Caldwell, 2014), the MCQ would *seem* to be the ultimate assessment method of choice.

What constitutes a well-written MCQ? The question has been the subject of textbooks, the topic of articles, and the thorn in the side of many a nurse educator. Hawkes et al. (1937) put

forth numerous eloquently written guidelines for educators in early 20th century classrooms.

In relation to each element to be tested, raise the question, “What is the best technique of testing to employ in this situation?” and then build the item originally in that form ... Make certain that each item actually measures what it is intended to measure. In other words, evaluate the item on the basis of its functioning content rather than on the basis of its apparent or intended content. If the two do not appear to agree, make the necessary revisions in the form of the item.

Perhaps the most important single ability in item construction is the ability to anticipate the specific mental processes of the student in reacting to the item. In making an analysis of this type, raise the following questions:

- a. Does the item contain any irrelevant cues or clues to the correct response?
- b. Does all of the item function? ... Could any part of the item be eliminated without significantly influencing the distribution of pupil responses to the item?
- c. Is the point of the item sufficiently clear? That is, is it free from ambiguity?
- d. Does the selection or provision of the correct response require from the pupil a real or reasoned understanding of the concept tested or only the recall or recognition of a unique set of words which may have been memorized without having become meaningful?

Avoid the usual overemphasis upon testing for the acquisition of isolated descriptive facts as opposed to testing for understanding of interpretative ideas. Emphasize the why, wherefore, how, with what results, of what significance, and the explain or interpret types of questions in preference to the who, what, when, where, and define, describe, and name types of questions. ... Make sure that each item determinate, that authorities would agree upon what constitutes the correct response to the item. (pp. 109 - 112)

Most of the guidelines set forth by Hawkes et al. (1937) are still in use today. Work by Osterlind (1989), Haladyna and Downing (1989), Ellsworth et al. (1990), Haladyna et al. (2002), Downing (2005), Haladyna and Rodriguez (2013), and Haladyna (2015) all built upon the work of Hawkes et al. (1937) and represent the bulk of the current literature available on item writing. Their research has validated and semi-codified the item-writing process into a concise set of commonly accepted testing guidelines (Appendix A) based on best practice and expert opinion.

Opponents of testing exclusively via the use of MCQs argue that such questions focus only on what students can remember, that is, recall and comprehension of the subject matter

(D'Sa & Visbal-Dionaldo, 2017). An additional concern is that MCQs encourage students to guess the correct answer. In answer to this concern, Downing (2005) calculated the chances of a student passing a 70-item true-false exam solely by random guesses as 0.0003% probability. Fortunately, few nursing students are so unprepared as to resort to random guessing on every question. A lucky guess, however, on one or two items could result in a passing grade for a student who would otherwise have failed the exam.

The four-response MCQ is the standard testing format and constitutes the bulk of items for both classroom unit exams and NCLEX testing (Oermann & Gaberson, 2017). This practice may change in the not too distant future if plans for the NCLEX-NextGen (NCSBN, 2018b) comes to fruition. One would think a MCQ easy to write, but the reality is often quite different, yet this is often not the case.

In Figure 1, both the stem and the most obvious distractor (C) depend upon a timeline established by a previous item. Previous, as well as current, best practice suggest that item writers keep the content of each item independent from the content of other items (Ellsworth et al., 1990; Haladyna et al., 2002; Oermann & Gaberson, 2017). Next, the question is verbose. It includes extraneous content such as the gestational age of the fetus and signs and symptoms of depression. Item writers are cautioned to minimize reading (Oermann & Gaberson, 2017) and avoid unnecessary distractors such as names, age, or gender unless necessary (Bristol & Brett, 2015; Oermann & Gaberson, 2017). The non-essential information forces the student to spend an unreasonable amount of time reading the question rather than answering the question. Finally, the inclusion of North American Nursing Diagnosis Association (NANDA) International Nursing Diagnoses statements may fit specific foundations content regarding the nursing process, but do not mirror NCLEX exam items. Nursing specific item writing guidelines

recommend that all items focus on a clinical situation or problem requiring a nursing action (Bristol & Brett, 2015).

Figure 1

Poorly Written Question

Now 16 wks + 3 days gestation, the patient is withdrawn and becomes tearful when hearing the fetal heartbeat. She is unable to focus on instructions regarding pending routine antenatal testing. She reports sleeplessness, loss of appetite, and avoidance of formerly pleasurable activities stating, "I can't eat. I can't sleep. What's wrong with me?" The nurse develops a diagnosis and prepares a plan of care. Based on the available data, the most appropriate nursing diagnosis is:

- a) Disturbed personal identity r/t situational crisis and social role change AEB disrupted spousal relationship.
- b) Ineffective individual coping R/T maturational and situational crisis AEB inability to attend to information, sleep pattern disturbance, decreased appetite.
- c) Hopelessness R/T long-term stress AEB decreased appetite, insomnia, and lack of initiative.
- d) Risk for impaired parenting R/T young parental age.

Crider (2008).

Figure 2

Appropriately Written Question

The client received epidural analgesia within the last 30 minutes. The nurse notes the presence of fetal heart rate decelerations that begin at the peak of a contraction, gradually reaches nadir > 30 seconds after the peak of the contraction, and gradually returns to baseline after the contraction is over. The nurse evaluates these decelerations as:

- a) benign decelerations, most likely due to maternal supine position.
- b) early decelerations, most likely due to fetal head compression.
- c) late decelerations, most likely due to maternal hypotension.
- d) variable decelerations, most likely due to fetal cord compression.

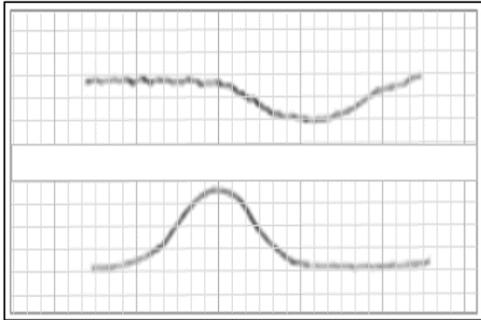
Crider (2010).

The item in Figure 2 is formatted according to five currently accepted item-writing guidelines: (a) the stem is single-spaced as are options; (b) there is a single space between the stem and options; (c) the stem is numbered, and options are lettered; (d) options are indented rather than lined up on the left margin (Downing, 2005; Ellsworth et al., 1990; Haladyna, 2015; Haladyna et al., 2002; Haladyna & Rodriguez, 2013) and (e) the item relates to a realistic clinical scenario and emphasizes clinical reasoning (Bristol & Brett, 2015).

To answer the question students must engage in multi-logical thinking. Multi-logical thinking is “thinking that requires knowledge of more than one fact to logically and systematically apply concepts to a clinical problem” (Garner, 2012, p.47). Students must first

Figure 3

Late Fetal Heart Rate Deceleration



recognize the fetal heart rate deceleration by its technical description. They may need to sketch the deceleration in relation to a contraction as a visual aide (Figure 3). They must then analyze the cause of the deceleration, in this case, related to epidural analgesia and possible maternal hypotension. Next, they must analyze the cause of the maternal hypotension related to

maternal positioning and rule out positioning as a cause of the deceleration. Finally, they must analyze the cause and effect of early and variable decelerations and compare the parameters of those decelerations with those noted in the question stem.

Even the best item writers must acknowledge the fact that the “perfect” MCQ does not exist (McGahee & Ball, 2009). All too often instructors must admit that after extensive item analysis and animated discussion among faculty, more than one answer should be accepted as correct based on statistical data. In addition, there are the rare occasions when the question is so discombobulated that faculty have no choice but to accept all answers, thus nullifying the question.

Definitions

Advanced practice registered nurse (APRN): A registered nurse (RN) who has a master’s degree, post master’s certificate, or practice doctorate in one of four specific roles: certified nurse

midwife, clinical nurse specialist, certified registered nurse anesthetist, or certified nurse practitioner (NCSBN, 2020).

Common content knowledge: Knowledge of common concepts and skills within an industry used in settings other than teaching (Ball et al., 2008).

Content knowledge (CK): The understanding of discipline-specific subject matter for which instructors are responsible (Koehler et al., 2014).

Distracters (within an item): Incorrect options listed along with the correct keyed response in a MCQ or other selected response test item (NCME, 2017).

Exam (test): An evaluation instrument composed of questions or items, which have right answers or best answers, used to measure an individual's aptitude or level of achievement in some domain (NCME, 2017).

High-stakes testing: A test for which there are significant consequences for students based on the level of scores students attain (NCME, 2017).

Horizon content knowledge: An awareness of how any given topic is related throughout the curriculum (Ball et al., 2008).

Item (stem): A question or incomplete sentence that poses a problem in a selected-response test item, most often a multiple-choice item (NCME, 2017).

Item analysis: A procedure by which faculty use statistics to examine the quality of a test item before its use on a test, or to determine if revisions might be necessary before its subsequent use (NCME, 2017).

Item-writing flaws: Violations of commonly accepted guidelines for writing MCQs (Nedeau-Cayo et al., 2013).

Knowledge of content and curriculum: Includes all aspects of the formal curriculum (program

framework, philosophy and mission statement, specific sequencing of courses with pre-selected content, student-learning outcomes, and program outcomes) and the operational curriculum (content taught in didactic and clinical settings) including the knowledge, skills, and attitudes emphasized by the program as being essential to the profession of nursing (Billings & Halstead, 2016).

Knowledge of content and students: Knowledge of content combined with knowing how students think about, know, or learn particular content (Adams et al., 2016).

Knowledge of content and teaching: Knowledge of content combined with an understanding of issues that affect student learning (Adams et al., 2016).

Learner's prior knowledge: Learners' preconceptions, misconceptions, and alternative conceptions about specific topics and related content (Pitjeng-Mosabala & Rollnick, 2018)

Logit: A psychometric unit of measurement in which the odds of one's ability to answer a question is compared to the difficulty of the question (O'Neill, 2005).

Multi-logical thinking: The systematic application of multiple items of factual knowledge to a clinical scenario in a testing environment, simulation, or actual clinical experience (Garner, 2012).

National Council Licensure Examination-RN (NCLEX-RN): A standardized test to obtain information to make a decision allowing an individual a license to safely practice in the field of registered nursing (NCME, 2017).

Novice nurse educator: A master's prepared APRN or nursing management professional who has no formal educational pedagogy and no practical teaching experience.

Objective exam: An exam containing items that can be scored without personal interpretation

(subjectivity) on the part of the scorer. Exams that contain multiple choice, multiple selection, true-false and matching items are examples (NCME, 2017).

Pedagogical content knowledge: Specialized knowledge possessed by experienced teachers, used to make any given topic understandable to learners (Shulman, 1986).

Specialized content knowledge: Specialized content knowledge and skills unique to teaching specific content within a nursing curriculum (Ball et al., 2008).

Statement of the Problem

NCLEX-style exam items, especially those written at higher cognitive levels of analysis and evaluation, are a well-known source of frustration to nursing students and nurse faculty for obviously different reasons. Students' ability to continue in a nursing program typically hinges on their ability to pass didactic exams. It is, therefore, imperative that exams be well written, valid, reliable, and grounded in sound evidence-based practice.

Unfortunately, most nursing faculty come to academia directly from clinical practice with little experience in the preparation of exams (Bristol & Brett, 2015; Bristol et al., 2018; Pate & Caldwell, 2014). Learning about experiences of novice nurse educators who are themselves learning to write useful exams can inform nursing programs of ways to make the process less stressful and more productive. Such knowledge will benefit novice nurse educators professionally, nursing programs as a whole, but most importantly, students who depend upon our educational expertise.

Conceptual Framework

Shulman: Pedagogical Content Knowledge

I frequently lecture without notes, as do many experienced instructors. This ad-lib presentation frustrates some students who complain that lectures do not follow the textbook in

strict sequence. What students fail to realize is that a textbook is merely one instrument in a vast repertoire of tools to use in whatever way instructors see fit. Students benefit not only from textbooks, lectures, and PowerPoint presentations, but also from my 25 years of experience as a registered nurse, my 12 years experience as a nurse educator, my expertise in obstetrics, every mistake I made, every patient experience in which I had a part, every conference I attended, and every degree I obtained. In short, students benefit from my pedagogical content knowledge.

Pedagogical content knowledge (PCK) is specialized knowledge possessed by experienced instructors used to make any given topic meaningful and understandable to learners (Shulman, 1986). PCK is “the blending of content and pedagogy into an understanding of how particular topics, problems, or issues are organized, represented, and adapted to the diverse interests and abilities of learners, and presented for instruction” (Shulman, 1987, p. 8).

Shulman’s concept of PCK was a departure from the norm at a time when the prevailing view emphasized the *process* of teaching; content was somewhat of an afterthought (Ball et al., 2008). As PCK matures, so too does the professional expertise of the novice nurse educator.

Benner: From Novice to Expert

The focus of this research is the transition experience of novice nurse educators as they construct, administer, and analyze exams during their first year of teaching. The role transition process is supported by the novice to expert framework in which Benner (1984) described the transition from novice nurse to expert clinician. Later interpretation of Benner’s work reveals an underlying assumption that skills are acquired through instruction, repetition, and experience (Gore et al., 2015). Stages of skill acquisition specific to clinical nursing follow a somewhat linear pattern over a prolonged period (Benner, 1984). The continuum runs from the novice nurse

beginning an initial post-licensure clinical position to the expert clinician, the designated mentor preceptor, charge nurse, or even unit educator some seven to ten years later (Benner, 1984). It is during these intervening years that nurses develop the knowledge and skills that deems them experientially qualified to enter academia.

Purpose

The requirements for transition from the clinical practice setting to the academic environment are many and varied. Expert clinicians often find that academic settings require a different skill set in addition to those required in the clinical setting (Cooley & De Gagne, 2016; Poindexter, 2013). Administrators expect novice nurse educators to possess certain desired knowledge, skills, and abilities prior to hiring (Poindexter, 2013). One such skill is the creation, administration, and analysis of unit exams.

The exam process includes not only item writing but also the ability to critically appraise the validity and reliability of the exam. The entire process can be one of discouragement, but if done with thoughtful insight and care could instead be an enlightening learning opportunity and professional experience. This descriptive, non-experimental, qualitative study explored the first exam experience of the clinical-expert-turned-novice-nurse-educator from construction to exam review. I interviewed practicing masters-prepared nurse educators about their construction, administration, and analyses their first year of unit exams to give voice to their perspective on the process, both professionally and personally.

Significance of the Study

The assumption in nursing education is that expert clinicians will quite naturally be able to teach nursing students in academic settings (Cooley & De Gagne, 2016). However, clinical expertise does not automatically confer academic expertise (Booth et al., 2016; Cooley & De

Gagne, 2016) even when bolstered by years of experience and validated through a plethora of specialty certifications. This study highlighted a gap in the education process of nurse educators. This study was significant in that the lack of qualified, adequately trained faculty is frequently cited as a contributing factor to the current nursing shortage (AACN, 2020; Cranford, 2013; Kowalski & Kelly, 2013; Oermann et al., 2015; Poindexter, 2013). The information provided by this study may help nursing academia as a whole, and nursing programs specifically, provide better mentorship and guidance for novice nurse educators.

Effective nurse educators have pedagogical preparation in teaching and learning, curriculum, and evaluation (Booth et al., 2016). Significant curriculum changes to practice masters and doctorates are unlikely given the fact that post-graduate certificates in nursing education are readily available on a voluntary basis. Expert nurse clinicians may need to consider the additional education offered by local institutions or accrediting bodies to obtain extensive professional development in adult learning theory and in testing-measurement theory (including item writing content) prior to entering academia.

Research Questions

The experience of novice nurse educators is a critical component that contributes to the likelihood that educators will continue a career in nursing education. Information from this study may inform the nursing profession and nursing programs as they seek to provide better and more specific mentoring and guidance for novice nurse educators. This research supports the call for a national academic standard of care (Rice, 2002) and reinforces the need for specific educational pedagogy regarding the functional aspects of the nurse educator role.

Shulman's pedagogical content knowledge (1986) and Benner's novice to expert (1984) framework informed the foundation for the two central research questions. The questions were:

1. How does the novice nurse educator describe the experience of constructing and administering exams during the first year of academic practice?
 - a. What decisions does the novice nurse educator make most frequently regarding exam construction?
 - b. How does the novice nurse educator describe the student response, in general, to the first unit exam?
 - c. If applicable, how does the novice nurse educator describe the student response specifically to the in-class review of the exam?
 - d. Did the student response match the novice nurse educator's expectations?
 - e. What do novice nurse educators say they learned from the first exam experience?
2. How and/or what would the novice nurse educator change regarding the preparation and administration process?

Summary

The Institute of Medicine (IOM) called for the radical transformation of nursing education (IOM, 2011). I submit that we cannot wholly transform nursing education without first transforming the education of nurse educators. Nursing education needs educators who can perform in the research arena, educators who can perform in the clinical venue, and educators who can perform in the classroom setting (NLN, 2005). We can no longer teach the way we were taught long years ago, nor can we continue to test the way we were tested. Yet test we must, and those tests must be of consistent quality and superbly crafted to assess deep knowledge and critical thinking skills. Application and analysis questions closely mirror clinical settings, yet many novice nurse instructors have difficulty writing questions at these higher cognitive levels.

The purpose of this study was to examine the experiences of novice nurse educators who prepared, administered, and analyzed exams during their first year of teaching. No information exists in the literature regarding this important piece of novice nurse educator competencies. This research helps fill a gap in nurse education literature.

As with novice nurses who leave practice the frustration, intimidation, and negative experiences during the first year of teaching make it more likely that nurse educators will leave the role. While all novice roles possess some degree of negative experience, experiences in which novice nurse educators are mentored and have a robust role model contribute to positive transitions. Novice nurse educators are then better equipped to effectively cope with exam preparation and analyses, and see that process as a valid learning tool and assessment. As a result, novice nurse educators are more likely to grow into expert nurse educators who will, in turn, mentor others in the journey from novice to expert again.

CHAPTER II

REVIEW OF LITERATURE

He who knows not and knows he knows not; he is simple — teach him. ~ I.A. Burton

To function effectively nurse educators must obtain and maintain expertise in two distinct disciplines: clinical nursing and nursing education (Booth et al., 2016; Gardner, 2014; Mann & De Gagne, 2017). Clinical expertise alone is insufficient for teaching in schools and colleges of nursing, as is preparation solely as an advanced practice clinician or researcher (Oermann, 2017). Effective nursing instructors bring content specific disciplinary knowledge *and* knowledge of teaching, adult learning, and evaluation to the academic table (Gardner, 2014; Owens, 2017). The results of this narrowly focused study of novice nurse educators' experiences offers an examination of one functional aspects of nursing education, i.e., the creation, administration, and analysis of nursing exams.

An extensive search of peer-reviewed journals of both nursing and general education literature was conducted using the following words and phrases: *academic standards, faculty shortage, higher-order cognitive items, instructor-created exam, item writing, item writing flaws, item analysis, multiple choice question, novice nurse educator, novice nurse faculty, novice educator, novice faculty, nurse educator competencies/standards, pedagogical content knowledge, testing and evaluation, transition to practice, and transition to academia*. The University of Alabama Library Scout was used to access the following databases: Cumulative Index to Nursing and Allied Health Literature (CINAHL), Education Research Complete (ERIC), Jstor, Ovid, and ProQuest. Independent databases such as Google Scholar and Research

Gate were also searched for appropriate sources. Search parameters within all databases were limited to peer-reviewed nursing and education journals, nursing and education dissertations, and relevant print and electronic textbooks. Most sources were recent, within the last five years, with a few exceptions for older seminal and still relevant literature. Next, reference sections of articles, dissertations, and books were searched to find additional content. Finally, websites of regulatory and accrediting agencies including the ACEN, the AACN, the NCSBN, the NLN, and the World Health Organization (WHO) were searched for significant content and statistical information.

An Academic Standard of Care

A standard of care is evidence-based and equips medical providers with an understanding of the type of care that will provide the most benefit to patients (Rice, 2002). In nursing practice, a standard of care is a “level of performance expected of a professional nurse as determined by an authority in practice” (McKinney et al., 2018, p. 23). All nurses, both novices and experts alike, must adhere to established standards of care in their chosen specialty. The NLN Nurse Educator Core Competencies, the WHO International Nurse Educator Core Competencies, and the AACN Essentials establish an *academic standard of care* for nurse educators. However, standards (i.e. competencies) presented by these three organizations are not congruent with one another. These academic standards describe actions of accomplished nurse educators (Poindexter, 2013); nevertheless, they are applicable to novice nurse educators as surely as any given standard of patient care applies to novice nurses. No reasonable and prudent nurse would *dare* practice outside the expected standard of care, yet master’s, and in some cases, bachelor’s prepared nurses are teaching in prelicensure programs without requisite pedagogies related knowledge and skills (Dreifuerst et al., 2016).

A master's degree in nursing is the minimum educational qualification for faculty teaching in programs of nursing in 37 out of 50 (74%) states (NCSBN, 2017b). Three states (6%) accept a master's degree in a related field other than nursing, and eight states (16%) accept a bachelor's degree in nursing. Three states (6%) do not specify a minimal preparation level. Of the eight states in which a bachelor's degree in nursing is the minimum acceptable educational level for faculty, only the North Carolina Board of Nursing requires additional professional development specifically to pedagogical preparation (NCSBN, 2017b).

In North Carolina additional preparation must take place within three years of hire and must include content in curriculum development, implementation, and evaluation (North Carolina Board of Nursing [NCBN], 2014). Preparation may be achieved by completion of 45 contact hours of continuing education, completion of nine semester hours of graduate education coursework, completion of a post-masters certificate program in nursing education, or completion of national certification in nursing education (NCBN, 2014); thus the NCBN has established a de facto state-level *academic standard of care* for nurse educators.

Pedagogical Content Knowledge

Pedagogical content knowledge (PCK) has been well researched in math, science, technology, and even music disciplines (Campbell et al., 2014; Georgii-Hemming & Lilliedahl, 2014; Koehler et al., 2014; Wasserman & Stockton, 2013). The NLN (2005) and the WHO (2016) make indirect references to pedagogical competency in their respective Nurse Educator Core Competencies. The NLN Certified Nurse Educator exam specifically tests and validates academic nurse educators' specialized knowledge, skills, and abilities (NLN, 2018). It would appear then that nursing academia does indeed recognize the importance of PCK, albeit while not referencing the specific terminology of PCK.

The creation of PCK is a function of how educators transforms subject matter via organization, adaptation, and contextualization to specific student populations (Shulman, 2015). PCK entails a working knowledge of: (a) how to make complex content understandable to nursing students; (b) commonly encountered misconceptions and difficulties that nursing students experience when learning complex content; and (c) innovative teaching strategies that address students' learning needs. In other words, educators make subject matter comprehensible to a variety of students with varying abilities and learning experiences in a variety of settings.

Organization and transformation of content into PCK is different in a traditional nursing curriculum versus a concept-based nursing curriculum, or an integrated curriculum versus a blocked curriculum. The manifestation of PCK is different depending on the quality of instructors' content knowledge and on the timing of courses (Shulman, 2015). A 16-week semester split between maternal-child nursing and pediatric nursing is noticeably different from a 16-week semester dedicated to a single subject.

Various researchers expanded Shulman's (1986) original two-dimensional concept into a multidimensional construct (Ball et al., 2008; Gess-Newsome, 2015). Ball et al. (2008) divided Shulman's (1986) original domains of subject matter knowledge and pedagogical knowledge into six subdomains (Figure 4). Content knowledge includes the subdomains of horizon content knowledge, common content knowledge, and specialized content knowledge (Ball et al., 2008). Pedagogical knowledge includes the subdomains of knowledge of content and teaching, knowledge of content and curriculum, and knowledge of content and students (Ball et al., 2008).

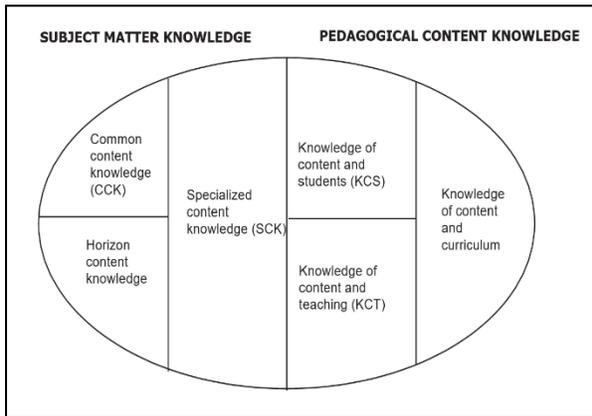
Content Knowledge

The typical nursing curriculum is content-laden; the learning environment is heavily invested in testing outcomes (Kaylor, 2014). Novice nurse educators possess a vast repertoire of

content knowledge, which is an essential prerequisite to PCK (Rollnick, 2016). Content knowledge is the understanding of the discipline-specific subject matter for which an instructor is responsible (Koehler et al., 2014). Content knowledge has a significant impact on the instructor’s classroom behavior and the student perception of instructor competence (Georgia Department of Education, n.d.). In nursing education, content knowledge is an important, if not the most important, pillar of the educator’s professional knowledge base (Rollnick, 2016). However, content knowledge is not the only pillar on which our practice as nurse educator’s rest (Figure 5).

Figure 4

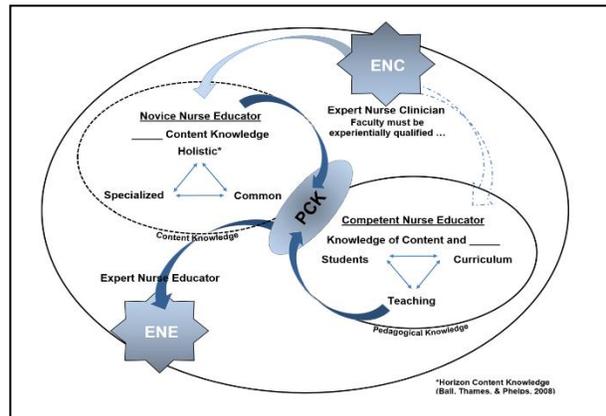
Domains of Mathematical Knowledge for Teaching



Ball et al., (2008)

Figure 5

Pedagogical Content Knowledge for Nurse Educators



Crider (2020). Adapted from Ball et al., (2008)

Horizon Content Knowledge

Horizon content knowledge is perhaps the least developed of the three content knowledge subdomains (Cho & Tee, 2018; Jakobsen et al., 2013). Horizon content knowledge, according to Ball et al. (2008), is an understanding of how specific course content on one level, for example foundations of nursing, is related to other content throughout the curriculum. Mathematics

scholars maintain that horizon content knowledge as initially defined, lacks clarity, consistency, and consensus (Jakobsen et al., 2013; Wasserman & Stockton, 2013).

According to Jakobsen et al. (2013), horizon content knowledge *is not* related to curriculum or progression per se; rather it is instead a sense of the broader learning context in which the discipline of mathematics resides, the landscape if you will. However, the landscape changes depending on the perspective (Wasserman & Stockton, 2013). Not surprisingly, the horizon is different to an elementary math teacher (or first-semester nurse educator) as compared to a college math instructor (or fourth-semester nurse educator); hence, the lack of clarity, consistency, and consensus among educators (Jakobsen et al., 2013; Wasserman & Stockton, 2013).

The practice of nursing intersects with numerous other disciplines - medicine, social services, and chaplain services to name only a few. Horizon content knowledge in nursing might be described as an awareness of not only how content fits (overall) in a nursing curriculum but also how content is related to the larger interprofessional healthcare landscape (Ball et al., 2008), a pedagogical peripheral vision of sorts (Cho & Tee, 2018). One might even go so far as to substitute the term *holistic* content knowledge in place of *horizon* content knowledge, holism being a foundation of nursing care and nursing education.

Common Content Knowledge

Common content knowledge is defined as knowledge and skills used in settings other than teaching (Ball et al., 2008). All nurses possess a common set of knowledge and skills. We all know: (a) physical assessment, (b) medication administration, (c) basic cardiac life support, (d) injection techniques, (e) phlebotomy, (f) initiation of intravenous access, and much more. These procedures and much more are in the standard repertoire of nurses.

Specialized Content Knowledge

Specialized content knowledge, as defined by Ball et al. (2008), is experienced-based knowledge and skill possessed by instructors and is unique to teaching a broad discipline. Specialized content knowledge in the general teaching discipline does not apply to specific courses or specific topics within a course. Nursing science covers a broad spectrum to be sure, as do all the health sciences; however, teaching nursing content requires the translation of knowledge into very specific practice situations (Benner, 2005). When applied to nursing education, specialized content knowledge is experience-based knowledge and is a skill that is unique to teaching specialized content within a nursing course. Case in point:

1. Medical-surgical faculty with a critical care background and knowledge of complex cardiac conditions teach students to analyze a telemetry strip and intervene in response to an abnormal cardiac rhythm. Obstetrical faculty teach students to analyze an electronic fetal monitor strip (fetal cardiac telemetry) and respond to an abnormal fetal heart rate.
2. Obstetrical faculty recognize lethal cardiac rhythms and are able to assist in basic resuscitation efforts. Such knowledge is common content knowledge to all nurses regardless of practice settings. Conversely, it is unlikely that medical-surgical faculty will recognize a fetal heart rate abnormality because electronic fetal monitoring is specialized content knowledge that is unique to obstetrical nursing.

Pedagogic Knowledge: Knowledge of Content and ...

Pedagogic knowledge is defined as instructor knowledge regarding various individual teaching practices, strategies, and methods that promote student learning (Jones & Moreland, 2017; Koehler et al., 2014). In lay terms, pedagogic knowledge includes accumulated wisdom

and a voice of experience related to teaching a specific course or set of courses (Adams et al., 2016). Similar to Benner's (1984) novice to expert transition, pedagogic knowledge and by extension pedagogic content knowledge, is an individual characteristic developed over years; it is not a trait possessed by mere subject matter experts (Shulman, 2015). Pedagogic knowledge is a bridge between common and specialty content knowledge and the applied practice of didactic and clinical teaching (Campbell et al., 2014).

Teaching

Instructors quality affects students' achievement and program pass rates (Guerriero, n.d.; Jones & Moreland, 2017). Such is especially true in nursing education where the quality of instruction may have consequences related to NCLEX pass rates and, more importantly, patient safety. Knowledge of content and teaching includes knowledge of classroom management strategies, knowledge of various teaching methods and application thereof, knowledge of various assessment methods including preparation of exams, and knowledge of adult learning theory (Gess-Newsome, 2015). Knowledge of content and teaching interweaves knowledge of content with a deep understanding of teaching issues that may affect students' learning (Adams et al., 2016). Unfortunately, knowledge of content and teaching is not evenly distributed across the population of practicing nurse educators (Campbell et al., 2014).

Curriculum

Formal nursing curricula are constructed by faculty using accreditation standards established by the NLN, AACN, and ACEN, and by regulatory requirements from state boards of nursing and higher education commissions. In addition, position statements, guidelines from experts in the field, and professional standards established by professional nursing organizations guide programmatic content (Billings & Halstead, 2016). Common elements include an

organizing framework, philosophy and mission statement, specific sequencing of courses with pre-selected content, student-learning outcomes, and program outcomes (Billings & Halstead, 2016). The operational curriculum, i.e., content taught in didactic and clinical settings, includes knowledge, skills, and attitudes emphasized by programs as being essential to the profession of nursing (Billings & Halstead, 2016).

The operational curriculum also includes the concept of curricular saliency, which is the ability to distinguish between the need to know topics from the nice to know topics (Jones & Moreland, 2017; Rollnick & Mavhunga, 2017). Curricular saliency also includes an understanding of how any given topic within a course relates to larger concepts within the same course and within the curriculum as a whole (Jones & Moreland, 2017; Rollnick & Mavhunga, 2017). Finally, curricular saliency includes an understanding of why specific topics are sequenced for instruction and why others are not taught at all (Jones & Moreland, 2017; Rollnick & Mavhunga, 2017).

Students

Knowledge of content and students interweaves knowledge of content with knowledge of how students understand a particular subject (Ball et al., 2008; Jones & Moreland, 2017) and how students know about, think about, and learn about content (Adams et al., 2016; Jones & Moreland, 2017). Knowledge of content and students also includes instructors' abilities to identify what is difficult for students to understand (Ball et al., 2008; Jones & Moreland, 2017). Also, instructors must be able to identify preconceptions and misconceptions that learners bring to courses because of learners' prior knowledge (Ball et al., 2008; Jones & Moreland, 2017). Finally, instructors must recognize emerging on-the-right-track thinking, inefficient study habits

students may bring to bear when tested, and difficulties students may confront outside of class (Ball et al., 2008; Jones & Moreland, 2017).

From Novice to Expert: A Developmental Model

Developmental models are based upon assumptions that (a) one moves through a series of stages as skill and competence develop, and (b) each stage requires decreased supervision and assistance as competence and expertise increases (Joswiak, 2018). The Dreyfus model of adult skills acquisition is one such model (Dreyfus & Dreyfus, 2009). Benner (2005) also notes that changes in levels of performance can be compared over time. One assumption is that skill and experience are acquired through repetition of tasks (Gore et al., 2015).

Research regarding novice nurse educators is supported by the novice to expert nursing model posited by Benner (1984). The stages of the novice to expert model are novice, advanced beginner, competent, proficient, and expert. Benner (1984) applied the novice to expert model to clinical education to describe phases through which newly licensed nurses must travel while on their journey from neophytes to highly skilled professional registered nurses (Benner, 1984; Benner, 2001; Benner, 2005).

Novice

Beginner, typically but not always students, are uncertain and unsure of their decision-making skills when confronted by situations never before encountered (Benner, 1984; Benner, 2001; Benner, 2005). This requires constant verbal and physical support from instructors or colleagues. Mistakes, even minor ones, may elicit feelings of profound disappointment and failure (ten Hoeve, 2018). If ample support and guidance are provided to novices early in this stage, they begin transitioning to the advanced beginner stage sooner than expected and with more confidence in their abilities (Brown, 2015)

Advanced Beginner

Advanced beginners, typically new graduate registered nurses, are beginning to develop knowledge, yet most situations are still new and somewhat unfamiliar (Benner, 2005). Many students have functioned close to advanced beginner level while in nursing school (Benner, 2005), especially those who participated in heavily supervised externships during their last year of school. Continual support, on top of what was given previously, enables advanced beginners to achieve minimally acceptable independent performance, but mentors, preceptors, and colleagues continue to guide advanced beginners' level of practice (Benner, 2005).

Competent

Competent nurses have two or three years of experience, are efficient, coordinated, and recognize subtle changes in patients' trends because of past experiences (Benner, 2005). These nurses have mastered the ability to plan based on patient goals, issues, and needs (Benner, 2005). Analytical thinking is developing and although these nurses may request advice from colleagues, they do not need help with routine tasks related to patient care (Benner, 2005).

Proficient

Proficient nurses have three to five years of experience. Analytical thinking is deeper now, which results in quicker decision-making (Dreyfus, 2004). Proficient nurses see patients' care pictures holistically and they effortlessly modify the plan of care when events do not go as expected (Benner, 2005).

Expert

Expert nurses see and understand total patient care pictures. Deep analytical thinking and unconscious decision-making are hallmarks of expert nurses (Dreyfus, 2004). Expert nurses act

intuitively, recognize abnormal situations quickly while discarding interventions not necessary for patient care (Benner, 2005).

From Expert to Novice

Ample qualitative evidence exists in the nursing literature regarding role transition of expert nurse clinicians to novice nurse educators (Cooley & De Gagne, 2016; Poindexter, 2013; Schoening, 2013; Spencer, 2013; Weidman, 2013). Expert nurse clinicians repeat Benner's (1984) novice to expert process when assuming the role of nurse educators, once again becoming novices. At this point the dichotomy between practice and teaching becomes evident (Spencer, 2013).

The second journey through the novice to expert continuum is perhaps more fluid and less linear than the first due to the wealth of prior experiences brought forward into the role. Expert clinicians can conceivably skip Benner's novice stage altogether and perhaps even the advanced beginner stage by virtue of their clinical knowledge. However, if these highly experienced clinicians lack knowledge of educational pedagogical theory, the transition to academia and testing competence may prove challenging, to say the least (Weidman, 2013).

Transitions

Transition to practice is a key learning period for new graduate registered nurses. The transition to academia is much the same. Transitions involve a multifaceted process of change over time at the end of which new goals, skills, or behaviors are realized (Meleis, 2015). Still, even highly anticipated transitions bring challenges and some degree of disorder and chaos.

Transition to Nursing Practice

Novice nurses must be able to transition smoothly and quickly from safe academic settings to clinical environments, including community and public health settings (Benner et al.,

2010). Employers expect novice nurses to be work-ready even though novice nurses are educated as minimally competent (Woods et al., 2015). The intersection of realized and unrealized expectations is an identified theory-practice gap (Gardiner & Sheen, 2016; Woods et al., 2015). Nurse residency programs were implemented nationwide in response to a 2002 Joint Commission recommendation in an attempt to narrow the gap and alleviate negative aspects of novice nurse transition (Fitzpatrick, 2003).

Smooth transitions from students to bedside nurses are vital to the success of the new graduates, specifically, and the nursing profession in general (Benner et al., 2010). Unfortunately, many novice nurses find transitions from the relative safety of academia to highly fluid patient care environments as events fraught with discouragement, disillusionment, disappointment, disorientation, and dissatisfaction (Duchscher, 2008; Ebrahimi et al., 2016; Gardiner & Sheen, 2016; Jewell, 2013; Pasila et al., 2017). So great is the shock that many novice nurses exit the nursing profession within the first eighteen months (Duchscher, 2008) to three years (Pasila et al., 2017) without ever having obtained the status of expert nurse clinicians.

Novice nurses often note a significant disconnect between academia and reality (Duchscher, 2008; Gardiner & Sheen, 2016). The realization that hours upon hours of intense theory and clinical has not prepared them for independent practice is a shock (Duchscher, 2008; Gardiner & Sheen, 2016; Jewell, 2013) and this leads to feelings of anxiety, lack of self-confidence, and mental and emotional exhaustion (Ebrahimi et al., 2016; Jewell, 2013; Pasila et al., 2017). Finally, the loss of the familiar safety net provided by clinical faculty (Jewell, 2013; Walton et al., 2018) and the lack of support from experienced staff members create a sense of isolation and neglect (Ebrahimi et al., 2016; Gardiner & Sheen, 2016; Spiva et al., 2013).

Successful transitions to practice may be linked more to post-employment circumstances and less so to pre-employment educational influences (Phillips et al., 2014). Novice nurses in residencies programs experience increased job satisfaction and reduced job stress if they feel accepted as part of the nursing team (Kelly & McAllister, 2013; Kumaran & Carney, 2014). Many novice nurses describe their preceptors as supportive and nurturing, knowledgeable and experienced, communicative, and informative (Gardiner & Sheen, 2016).

Transition to Nursing Academia

Transitions are multifaceted (Meleis, 2015) and are influenced by individuals' perceptions, expectations, knowledge, skills, and attitudes (Paul, 2015). Only recently has academia recognized that novice nurse educators are similar to novice nurses with regard to role transitions (Bristol et al., 2018; Chicca, 2019). Like novice nurses, expert nurse clinicians often have unrealistic expectations of faculty roles (Grassley & Lambe, 2015; Schoening, 2013), and they face a new set of expectations, skills, and practices (Laurencelle et al., 2016; Owens, 2017).

The uncertainties related to role expectations manifest as lack of confidence (McDermid et al., 2013; McDermid et al., 2016). Anxiety, high stress, role strain, and job dissatisfaction (Cranford, 2013; Schoening, 2013; Weidman, 2013) impact faculty retention in turn (Poindexter, 2013). Lack of preparation creates a dissonance and a disconnect between clinical practice and academic practice (Grassley & Lambe, 2015; Ignatavicius & Chung, 2016; Owens, 2017) just as it did for novice nurses transitioning from the safety net of academia to the reality of clinical practice. Such dissonance often leaves nurse educators in unfamiliar territory, as well as overwhelmed (Paul, 2015), thus teaching by trial and error (Mann & De Gagne, 2017) without any guidance or structured intent.

Clinical expertise does not confer teaching expertise (Spencer, 2013; Weidman, 2013). Like novice nurses, novice nurse educators need a supportive, nurturing environment to soften the bumps they often experience during this profound role change (Spencer, 2013). The lack of pedagogical preparation forces novice nurse educators to seek information without direction or support (Schoening, 2013). The lack of support is disorienting initially and may hinder the transition into the academic role (Schoening, 2013; Summers, 2017). However, proper orientation with prolonged mentoring sets a positive tone for the transition (Cooley & De Gagne, 2016; Gardner, 2014; Phoenix, 2013; Weidman, 2013) and also provides a safe, supportive environment that lets novice nurse educators develop expertise and self-confidence in their teaching practice (Poindexter, 2013; Weidman, 2013).

Novice educators who bring a beginning knowledge of pedagogical concepts experience a smoother transition from clinical practice into an academic role, which increases job satisfaction (Poindexter, 2013). Expert clinicians could conceivably start at advanced beginner stages or beyond. However, most nurse faculty learned the art of nursing via highly structured content laden curricula and too few have formal pedagogical training in teaching and learning, curriculum development, or assessment (Benner et al., 2010). If these highly experienced expert nurse clinicians lack knowledge of educational theory, then transitions to academia and testing competence may prove challenging.

Teacher Educators: Déjà Vu

Nursing and education are two distinct disciplines and yet they have numerous characteristics in common. Teacher educators experience challenges when returning to novice roles (as compared to their previous expert status) and may take three to five years to settle into their professional identity as teacher educators (Shagrir, 2017). As with nursing education, the

assumption in teacher education is that experienced classroom teachers will make effective teacher educators (Knight et al., 2014; Loughran, 2014). Content knowledge and teaching experience are often considered adequate preparation for this new role of teacher educator (Goodwin et al., 2014), and practical experiences are seen as more valuable than pedagogical knowledge and preparation (Conklin, 2015; Loughran, 2014).

Also similar to nursing education is the disconnect between university education courses and field (clinical) experiences (Anderson & Stillman, 2013). Novice teacher educators often describe dysfunctional years of trial and error, isolation, and overwhelming loneliness (Goodwin et al., 2014). Teacher educators often find that what they practiced as classroom teachers does not readily transfer to becoming teacher educators (Goodwin et al., 2014). They note that their practice did not necessarily come from their master's or doctoral education but rather "by osmosis" (Goodwin et al., 2014, p. 291), diligent observation, and a touch of desperation.

Academic Standards in Nursing Education

The NLN, WHO, and AACN Nurse Educator Competencies and Essentials of Master's Education in Nursing

Like the nursing profession itself, there are multiple paths into nursing academia (Delgado & Mitchell, 2016). Multiple agencies have published nurse educator competencies and expectation (Table1). The *NLN Core Competencies for Academic Nurse Educators* (Appendix B) promote the advanced specialty role of nurse educators and establishes nursing education as a specialty area of practice (NLN, 2005). The WHO identified detailed international standards of competencies (Appendix B) in both content and pedagogy that closely align with the NLN competencies (WHO, 2016). The AACN advocates that nurses who teach or plan to teach should have a doctoral degree (AACN, 2017). The *Essentials of Master's Education in Nursing* (AACN, 2011) are clinically focused, emphasizing clinical roles of advanced practice nurses, clinical

nurse leaders, or clinical nurse specialists (Appendix B). Nurse educators function in a direct care role, therefore they must be able to function as advanced practice nurses when supervising student nurse/patient care experiences (AACN, 2011). Thus, clinically focused or research-focused doctoral education is the preferred terminal preparation for nurse educators (AACN, 2017).

Table 1

National and International Nurse Educator Guidelines

<i>NLN Nurse Educator Core Competencies</i>	<i>AACN Essentials of Master's Education in Nursing</i>	<i>WHO International Nurse Educator Core Competencies</i>
Engage in scholarship	Clinical prevention and population health	Communication, collaboration, partnership
Facilitate learner development and socialization	Health policy and advocacy	Curriculum design and implementation
Facilitate learning	Informatics and healthcare technologies	Ethical/legal principles and professionalism
Function as a change agent and leader	Inter-professional collaboration	Management and leadership
Function within the educational environment	Master's level clinical nursing practice	Monitoring and evaluation
Participate in curriculum design and evaluation	Organizational and systems leadership	Nursing practice
Pursue continuous quality improvements in the role	Quality improvement and safety	Research and evidence
Use assessment and evaluation strategies	Sciences and humanities background	Theories and principles of adult learning
	Translation and integration of scholarship into practice	

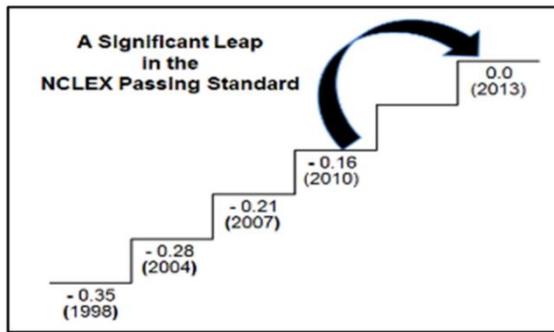
Adapted from the NLN (2005) *Nurse Educator Core Competencies*, the WHO (2016) *Nurse Educator Core Competencies*, and the AACN (2011) *Essentials of Master's Education in Nursing*.

The NCLEX Passing Standard

The NCSBN (2017c) raised the NCLEX passing standard by two full logits (- 0.16 to 0.0) in April 2013 (Figure 6). A logit is a psychometric unit of measurement in which odds of an examinee's ability to answer a question are compared to the difficulty of questions (NCSBN, 2012; O'Neill, 2005). Statistically, the probability of a correct response decreases as the difficulty of the question increases (Goldhammer, 2015). One may envision the NCLEX logit as

Figure 6

Leaping Logits



National Council of State Boards of Nursing. (2017b).

a rather tall, rather wide stair step (B. Bontempo, personal communication, February 15, 2017).

Simply put, the increased difficulty required examinees to jump not one but two tall, wide stairs *upwards*. In the years since the logit increase, 2013-2018 inclusive, examinees in 20 states and the District of Columbia have succeeded in

surpassing their original 2012 NCLEX pass rate benchmark (Appendix C) at least once (NCSBN, 2014, 2015, 2016, 2017a, 2018a, 2019a).

State Boards of Nursing Standards

Nursing programs' pass rates represent the proportion of examinees who pass the NCLEX on the first attempt (Serembus, 2016). Decreased pass rates reflect poorly on the quality and credibility of programs. Continued poor pass rates may result in corrective measures enforced by state boards of nursing and accrediting agencies (Hunsicker & Chitwood, 2018). The outcome of the increased exam difficulty was a not unexpected nationwide increase in failure rates of first-time RN examinees (NCSBN, 2014). However, one must realize that this increased difficulty reflects a higher passing standard, and *not* a decline in examinee ability (B. Bontempo, personal communication, February 15, 2017). In the years since the 2013 change, first-time NCLEX failures in Texas (Table 2) have consistently decreased for ADN and BSN programs (Texas Board of Nursing, 2014, 2015, 2016, 2017, 2018, 2019). The same trajectory is true (Appendix C) for professional registered nurse programs nationwide (NCSBN, 2014, 2015, 2016, 2017a, 2018a).

Texas is one of 36 states in which the state board of nursing require a specific percent of first-time pass rates and one of 23 that require an 80% pass rate (NSCBN, 2019b). In comparison, the benchmark for Illinois and Hawaii RN programs is 75% and 90%, respectively (NCSBN, 2017b). In 2017, Illinois had one RN program on probation due to decreased pass rates, with four other programs on a warning status (Illinois Department of Financial and Professional Regulation, 2020). In 2016, Hawaii had only one program (out of nine) that met the benchmark once after the higher NCLEX standard went into effect (Department of Commerce and Consumer Affairs, 2013, 2014, 2015, 2016).

Table 2

Texas Professional Registered Nurse Program First-Time NCLEX Pass Rates

Year	2014			2015			2016		
	ADN	BSN	ALL	ADN	BSN	ALL	ADN	BSN	ALL
Total # of programs*	63	39	102	65	42	108	66	44	110
Below benchmark (< 80 %)	22	12	33	18	11	29	19	7	36
Above benchmark (> 80 %)	41	27	69	47	31	79	47	37	74
Percent failure	34.9	30.8	32.3	27.6	26.1	26.8	28.7	15.9	32.7

Year	2017			2018			2019		
	ADN	BSN	ALL	ADN	BSN	ALL	ADN	BSN	ALL
Total # of programs	70	45	115	69	45	114	70	51	121
Below benchmark (< 80 %)	11	4	15	5	1	6	13	1	14
Above benchmark (> 80 %)	59	41	100	64	44	108	57	50	107
Percent failure	15.7	8.8	13.0	7.2	2.2	5.3	18.6	2.0	11.6

Adapted from Texas Board of Nursing National Council Licensure Examination Registered Nurse 5 Year Pass Rates * Excludes new programs or programs with no NCLEX candidates

The Texas Board of Nursing, like many other state boards of nursing, uses first-time test-taker pass rates for continuing program approval (NCBSN, 2017c). Programs failing to meet the 80% first-time pass rate standard must initiate a self-study, identify areas of weakness, identify corrective measures, and submit a report to the board of nursing (Hooper & Ayars, 2017). The Texas Board of Nursing reviewed board-mandated self-studies of 61 professional

nursing programs following the 2013 logit increase. Insufficient faculty development, inadequate orientation and mentoring, and a lack of item writing and analysis skills among faculty were consistently identified as areas that needed improvement (Hooper & Ayars).

The Cognitive Domain and Effective Assessment in Nursing Education

The practice of nursing functions in the realm of application and analysis. We *do for* in addition to *knowing of*. Caring and empathizing, assessing, analyzing, evaluating, and intervening are but a few manifestations of our practice. Bloom and colleagues seminal work, *The Classification of Educational Goals: Handbook I* (1956) established a taxonomy of educational objectives and defined three domains of learning: cognitive, psychomotor, and affective. Nursing education makes use of all three domains in various capacities.

Bloom's Taxonomy of Educational Objectives

Affective learning establishes attitudes and professional values such as caring, empathy, and ethics (Bloom et al., 1956). Psychomotor learning encompasses complex skills such as establishing intravenous access and foley catheter insertion, among others. Cognitive learning embodies knowledge at various levels of thinking. Each step along the cognitive learning continuum requires a higher level of abstract thinking, from simple to complex, from concrete to abstract (Bloom et al.).

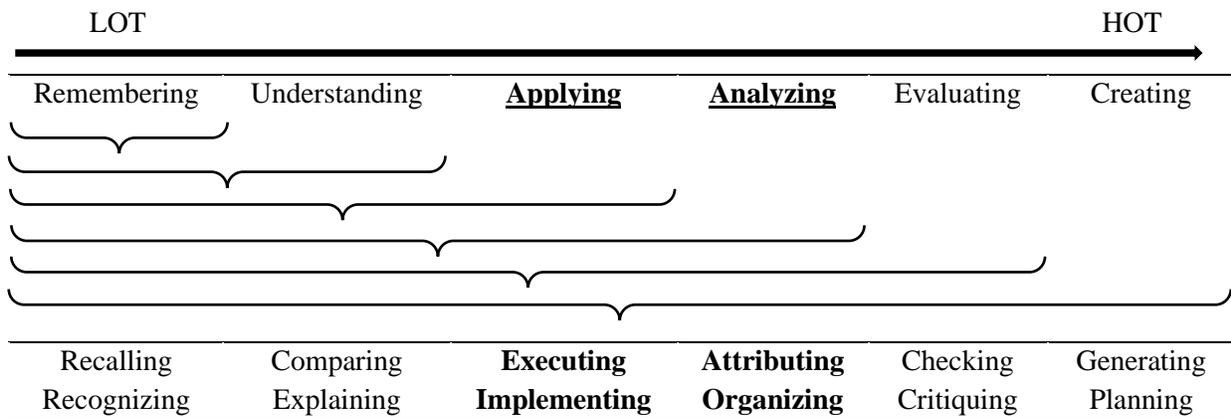
The cognitive domain includes six categories: knowledge, comprehension, application, analysis, synthesis, and evaluation (Bloom et al.). Higher order thinking (HOT) processes, such as application and analysis, incorporate lower-order knowledge and comprehension processes, suggesting beginners' level of expertise in content areas being tested (Table 3). For example, students must first have knowledge and comprehension related to needle lengths and gauges,

appropriately sized syringes, and physical landmarks related to injection sites before application of such in the performance of an intramuscular injection.

Anderson and Krathwohl (2001) revised the original taxonomy to reflect active verb associations rather than passive noun aspects. The revised categories are remembering, understanding, applying, analyzing, evaluating, and creating (Anderson & Krathwohl). In addition, evaluating and creating switched places to reflect the progression from simple to complex thought. The NCSBN has embraced the revised taxonomy (NCSBN, 2016). Novice and seasoned nurse educators admit that they lacked the pedagogical knowledge that prepared them for this aspect of test development, administration, and analysis (Bristol et al., 2018).

Table 3

The Cognitive Continuum – Lower Order Thinking (LOT) to Higher Order Thinking (HOT)



Adapted from Anderson, L. W. & Krathwohl, D. R. (Eds.). (2001). *A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives, Abridged edition*. Pearson.

Item Writing Revisited

Clinical nursing judgment is an essential professional skill but is difficult to assess with MCQs written at lower order cognitive levels (Dickison et al., 2016). It is possible to test at higher cognitive levels such as applying, analyzing, or even creating. These higher order levels test abstract concepts consisting of multiple integrated and chained cognitive processes (i.e.,

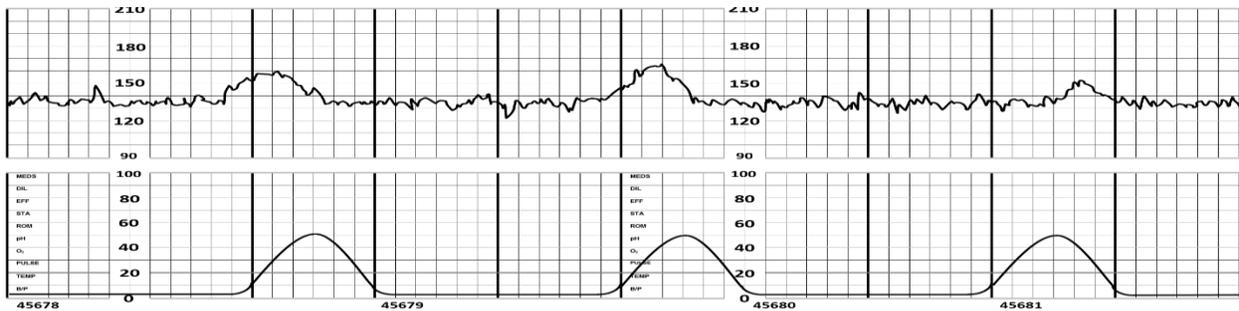
multilogical thinking), the dynamics of which are difficult to create with multiple-choice questions (Dickison et al., 2016). These questions are difficult to construct and require a skillset that few novice nurse educators, at least initially, possess (Bristol & Brett, 2015; Su et al., 2009).

Questions written at these levels require the ability to discriminate between all plausible answers in a given clinical scenario (Scully, 2017). Multi-logical thinking requires students to systematically apply multiple items of factual knowledge and clinical judgment to questions. To correctly answer the question in Figure 7, students must have a functional understanding of electronic fetal monitoring concepts such as (a) normal fetal heart rate (FHR) baseline parameters, (b) characteristics of FHR variability, (c) FHR acceleration parameters for preterm and term gestations, (d) characteristics of a FHR deceleration, (e) contraction frequency, (f) contraction duration, and (g) characteristics of the fetal monitor paper.

Figure 7

Analyzing Level Question

Analyze the electronic fetal monitor strip and select the correct documentation.



Fetal Assessment	A	B*	C	D
FHR Baseline	125	135	145	155
Variability	Moderate	Moderate	Moderate	Moderate
Accelerations	Present	Present	Present	Present
Decelerations	None	None	Variable	None
Uterine Contractions				
Frequency	Q 2 1/2 min	Q 3 min	Q 3 1/2 min	4 min
Duration	50 secs	60 secs	70 secs	80 secs
Intensity (w palpation)	Moderate	Moderate	Moderate	Moderate
Resting Tone (w palpation)	Relaxed	Relaxed	Relaxed	Relaxed

*Correct answer

Alternate question formats currently in favor on the NCLEX also require multi-logical thinking and clinical judgment. In addition to the typical MCQ, formats such as multiple response questions, fill-in-the-blank (dosage calculations), hotspots, exhibits, prioritization (also known as drag and drop), audios, videos, tables, and patient charts are frequently used (NCSBN, 2020). An alternative format for the question above would also be appropriate wherein students must select (drag) the appropriate component and place (drop) it in the desired location, continuing until the strip is created according to narrative documentation.

Computer-based adaptive testing, such as that used by the NCLEX, allows more creative question formats, each of which must be rigorously evaluated for validity. In high-stakes exams such as the NCLEX the consequences of failure may be dire and invalidity of items, even in small amounts, is intolerable (S. Downing, personal communication, March 22, 2017). This is especially true in healthcare professions such as medicine, nursing, and pharmacy where measurement error on high stakes exams may have profound consequences related to patient safety (S. Downing, personal communication, March 22, 2017). This type of measurement error may have far fewer consequences in unit exams but should still be avoided.

Item Writing Flaws Revisited

Faculty are morally and ethically obligated to ensure that tests used in classroom assessment and subsequent decisions based on results are valid, evidence-based and fair NLN (2012), yet few nurse educators receive formal instruction regarding creation of exam items (Brown & Abdulnabi, 2017; Su et al., 2009). Tarrant et al. (2006) evaluated 2,770 instructor written questions, 46% of which were flawed with 91% written at knowledge or comprehension levels. Subsequent studies from nursing and medical undergraduate and graduate education,

nursing and medical professional development, and pharmacy graduate education show a continued pattern of using flawed items when testing.

Item writing flaws are not limited to instructor-written exams. Errors in print (i.e. textbook test banks) initiate violation of validated item-writing guidelines especially among novice faculty, which leads to errors in testing (Table 4). Two substantive studies analyzed MCQs within nursing textbook test banks (Masters et al., 2001). Both studies found a significant number of item writing errors in test bank questions despite the availability of published, validated item writing guidelines. Masters et al. (2001) examined 2,913 MCQs in 18 textbooks and found that 2,233 (76%) questions contained item writing flaws. Also, 47% of questions were written at the knowledge level or comprehension level (Masters et al) as determined by Bloom’s taxonomy (Bloom et al., 1956). Ellsworth et al., (1990) conducted a study of 18 educational psychology textbook test banks and found that of 648 (60%) of 1,080 items that were flawed.

Table 4

Item Writing Flaws (IWF) in Medical, Nursing, and Pharmacy Education

Author(s)	Discipline	Reviewed	IWF	Percent
Khan et al. (2013)	Medicine	4,550	1,572	34.5
Nedeau-Cayo et al. (2013)	Nursing E ⁺	2,491	2,118	85.0
Pate and Caldwell (2014)	Pharmacy	187	97	51.8
Webb et al. (2015)	Medicine	200	99	49.5
DiSantis et al. (2015)	Medicine ⁺⁺	181	78	43.1
Hijji (2017)	Nursing	98	90	91.8
Total		7,707	4,054	52.6

+ CNE – Continuing Nursing Education

++ CME – Continuing Medical Education

Basic Exam Item Analysis Concepts

Reliability coefficient

The reliability coefficient (Figure 8) is a measure of overall internal exam consistency and reliability (McGahee & Ball, 2009). Also known as the Kuder-Richardson Scale (KR-20),

the reliability coefficient measures whether or not individual items work in conjunction with all the other items in the assessment to test student knowledge of specific topics (McGahee & Ball, 2009), for example, normal intrapartum topics. A KR-20 of greater than 0.50 is the acceptable minimum in nursing education and indicates an increased likelihood of obtaining a similar score if the same test is administered to a similar group of nursing students (McGahee & Ball, 2009).

Figure 8

Item Analysis Example

Item	Correct Group Responses		Point Biserial	Correct Answer	Response Frequencies				Non-Distractor	
	Upper 27%	Lower 27%			A	B	C	D		
1	100.00	100.00	0.00	D	0	0	0	38	ABC	
2	71.05	100.00	60.00	0.27	A	27	7	2	2	
3	60.53	80.00	30.00	0.45	D	5	3	23	7	
4	92.11	100.00	70.00	0.35	A	35	0	0	3	BC
Total Possible Points		100.00	Median Score		79.75		High Score	94.00		
Standard Deviation		7.35	Mean Score		78.89		Low Score	68.00		
Students in the group		38	Reliability Coefficient KR20		0.52					

Crider (2017). RNSG1251 Exam 1.

Item analysis

Item analysis uses statistical analysis to examine quality of individual items, and student responses (Bristol et al., 2018; McGahee & Ball, 2009; Oermann & Gaberson, 2017). Item analysis is usually performed immediately after an exam and includes all faculty responsible for teaching subject matter covered by that exam (Paniagua & Swygert, 2016). The item analysis determines whether or not individual questions contribute to the overall reliability of the test (Bristol et al., 2018; McGahee & Ball, 2009; Oermann & Gaberson, 2017).

Item difficulty

Item difficulty (Figure 8), also known as the *p-value*, represents the proportion of students who answered the item correctly (Bristol et al., 2018; NCME, 2017). Increased *p-values*

(percent correct) equate to easier items (or mastery items), while decreased p-values equate to more difficult items (McGahee & Ball, 2009). In general, item difficulty should range between 30% and 70% (D'Sa & Visbal-Dionaldo, 2017; Oermann & Gaberson, 2017). Values outside the acceptable range do not adequately discriminate between high performing and low performing students (Brown & Abdulnabi, 2017; McGahee & Ball, 2009; Oermann & Gaberson, 2017).

Item discrimination

Item discrimination (Figure 8), also known as the point biserial index, is an indicator of individual item quality (Oermann & Gaberson, 2017). In general, a point bi-serial index below 0.20 indicates a poor-quality item in need of revision, 0.20 – 0.29 a fair quality item, 0.30 – 0.39 a good item, and greater than 0.40 an excellent item (Bristol et al., 2018; McGahee & Ball, 2009). Increased item discrimination indicates that students who answered the item correctly also performed well on the exam overall (Bristol et al., 2018; McGahee & Ball, 2009). A decreased value indicates that students who did poorly on the test were able to answer an individual item correctly (Oermann & Gaberson, 2017). A value of 0.0 suggests that an equal number of students who did poorly and students who did well answered the individual item correctly (Bristol et al., 2018; Oermann & Gaberson, 2017) and thus provides no discrimination between the two groups. A negative value indicates that students who did poorly on the overall exam answered the individual item correctly, while students who did well on the overall exam answered the item incorrectly (Bristol et al., 2018; Oermann & Gaberson, 2017). An item with a negative point biserial index should not be reused until review and revision of the item is performed by a content expert (Paniagua & Swygert, 2016).

Item distractors

Typical nursing exams use four or five distractors in each item, more for alternate format questions. All distractors should be plausible enough to entice a minimum of 5% of students, typically those students in the lower performing group, to select such as the answer (Oermann & Gaberson, 2017). Distractors that entice students in the higher performing group are most likely ambiguous or poorly constructed (Oermann & Gaberson, 2017). Non-functioning distractors, that is, distractors that are not selected by either group, are most likely so flawed or so improbable as to be obviously incorrect (Gierl et al., 2017).

Creation and Administration of Exams

Essential components of learning to be educators are learning how to teach effectively and how to prepare useful student assessments. Nurse educators design assessments, develop tools, and employ methods to evaluate student learning using evidence-based techniques in the classroom, the lab, and the clinical setting (NLN, 2005; WHO, 2016). Education literature is replete regarding the subject of how exams should be constructed and how items in exams should be analyzed (Bristol & Brett, 2015; Haladyna & Downing, 1989). Novice nurse educators experience significant stress when writing exam questions and analyzing exam results (Bristol et al., 2018; Weidman, 2013). However, few studies have examined nurse educator constructed exams (Tarrant et al., 2006). None thus far have examined the experience of novice nurse educators when creating, administering, or analyzing exams during their first year of teaching.

Nursing programs do not consider typical instructor-written unit exams as high-stakes exams. High-stakes exams are defined as all-or-nothing gatekeeper exams that have the potential to block students' progression through nursing programs (Hunsicker & Chitwood, 2018).

Examples include medication dosage calculation exams, skills mastery performances, and nationally normed standardized exams (Hunsicker & Chitwood, 2018).

Students are typically dismissed from nursing programs after a second course failure, which is often a direct result of failing unit exams. As a result, unit exams, while not high-stakes in and of themselves, often influence high-stakes decisions regarding students' ability to continue in nursing programs (Hunsicker & Chitwood, 2018; Oermann, 2018). It is, therefore, imperative that exams are valid, reliable, and grounded in sound evidence-based practice (Dhamani & Kanji, 2017). However, relatively few nurse educators receive the formal pedagogical training needed to successfully transition to the nurse educator role, especially as it relates to the evaluation and testing of student learning (Cooley & De Gagne, 2016; Gardner, 2014).

Instructors are often of the opinion that an increased student failure rate on individual unit exams equates to a difficult exam. In reality, increased student failure rates often equate to poorly written exam items. Students, rightfully so, are fearful of the “trick” question, the unfair question, or the trivial question (Bristol et al., 2018). Students are frequently vocal when challenging individual test questions (the fairness of the question, the correctness of the answers) and are not afraid to express displeasure if they feel wronged (Aul, 2017; Clark et al., 2014). Novice educators are, at times, unprepared for these intense opinions voiced by adult learners (Ziefle, 2018). Without substantial supporting evidence and understanding of how questions are constructed and how cognitive levels are applied, novice nurse educators are forced into a corner with a weak response to student challenges (Bristol et al., 2018).

Application and analysis questions closely mirror clinical settings, yet many novice nurse instructors have difficulty writing questions at these higher cognitive levels. Inadequate preparation tends, in practice, to manifest in test questions lifted from textbook test banks or

questions written from scratch (Bristol et al., 2018). Items in test banks used in classroom testing, for the most part, are often written carelessly and are designed to test knowledge and comprehension only. The correct answers are often guessed or easily gamed by test-wise students using obvious clues in the language of items (S. Downing, personal communication, March 22, 2017). Many seasoned nurse educators, much less the novice educators, struggle to identify these liabilities imposed by heavy usage of published test banks.

Bristol et al. (2018) reported that novice nurse educators experienced frustration when writing and analyzing exam questions. Weidman (2013, p 105) noted that one study participant described the administration of the first exam as “absolutely horrifying”. Indeed, test item writing is often cited as being one of the more difficult areas of being nurse educators (T. Bristol, personal communication, August 1, 2016). Other studies discussed feelings of inadequacy and confusion (McDermid et al., 2016; Murray et al., 2014). It is possible to take student challenges to exam items and turn such into insightful learning opportunities. However, the exam review process is seldom taught to nurse educators, novice or otherwise, leaving novice nurse educators with few, if any, qualified role models.

Faculty Shortage Equals Nursing Shortage

The current nursing shortage is intimately related to a shortage of qualified nursing faculty (Cranford, 2013; Ignatavicius & Chung, 2016; Kowalski & Kelly, 2013; Shapiro, 2018) and is expected to persist for at least two decades (Spiva et al., 2013). The United States (US) will need approximately 34,200 additional nurse educators by the year 2022 in order to educate 1.13 million additional nursing students (McMenamin, 2014). Retirement is looming large in the not too distant future for 50%, if not more, of our masters and doctorally-prepared nurse educators (AACN, 2015).

The shortage of qualified faculty affects the quality of both didactic and clinical instruction (Ignatavicius & Chung, 2016; Shapiro, 2018; Zakari et al., 2014). Clinical experts, who often replace retiring faculty, frequently lack the knowledge, skills, and attitudes needed to effectively teach and accurately evaluate students (Ignatavicius & Chung, 2016). Novice nurse educators often find themselves unprepared for the differences between the practice of nursing and the teaching of nursing (Schoening, 2013).

Fang et al. (2016) noted that 11.8% of full-time nurse educators in the US leave academia for various reasons within a year of hire. This lack of qualified educators corresponds to decreased student capacity for programs of nursing (AACN, 2020; Cranford, 2013; Oermann et al., 2015; Poindexter, 2013; Spencer, 2013). In the NLN *Biennial Survey of Schools of Nursing* (NLN, 2016), 26% of program administrators cited the lack of qualified faculty as a major obstacle to expanding student capacity, a trend which has seen no significant change since the previous surveys of 2012 (30%) and 2014 (29%). Nor is the educator shortage limited to undergraduate study. According to the AACN (2020) a large number of qualified applicants were declined admission to master's programs (N = 9,757) and doctoral (N = 2,102) programs.

The primary reasons for declining qualified graduate students were a shortage of qualified graduate faculty and a dearth of appropriate clinical education sites in the US (AACN, 2020). So critical is the shortage that lawmakers in some states called for the lowering of faculty educational standards so that more nursing students could be granted admission to nursing programs (Spector, 2009). Also, some states are limiting degree requirements. Texas is one of several states that passed legislation capping ADN programs at 60 credit hours (Fain, 2013).

Summary

The NLN *Nurse Educator Competencies*, the WHO *International Nurse Educator Core Competencies*, and the AACN *Essentials for Master's Education* are proverbial bars over which novice nurse educators must leap. Novice nurse educators who lack pedagogical preparation may experience frustration and failure when attempting to clear those bars and therein lays a problem. Studies emphasize the fact that master's prepared nurse educators are inadequately prepared to educate undergraduate nursing students, not due to a lack of clinical expertise but rather a lack of formal general pedagogical education (Poindexter, 2013; Schoening, 2013). Faculty are content experts (Ball et al., 2008) but not yet experts of teaching (Gardner, 2014), excelling only in providing or directing client care and providing clinical supervision to students (Spencer, 2013).

Regardless of degree, faculty should be pedagogically prepared for their teaching roles and have the appropriate competencies to teach nursing (Agger et al., 2014; Schoening, 2013). Clinical expertise must be enhanced, at the very least, by pedagogical preparation in adult teaching-learning strategies and measurement-evaluation methods (Booth et al., 2016; Gardner, 2014; Poindexter, 2013). To do less, to rely upon on-the-job-sink-or-swim experience, is not fair to students or novice nurse educators (Oermann, 2017).

CHAPTER III

METHODOLOGY

He who knows and knows not he knows, he is asleep — wake him. ~ I. A. Burton

All nurses have stories to tell. We collect them from day one of our careers. These stories bear witness to the practice of our profession and our calling, our victories, and our failures. Hilarious stories we tell over, and over, and over again. Other stories we tell once or twice in a lifetime because the memories are so intensely painful. The stories become a part of nurse educators' pedagogical content knowledge. The telling of these stories in educational settings provides a tableau upon which to base lectures, conduct simulations, and teach the intricacy of the nurse-patient dyad (Billings, 2016; Fitzpatrick, 2018; Phillips et al., 2017; Timbrell, 2017).

The experiences that novice nurse educators endure while developing, administering, and analyzing NCLEX type exams have not been studied to any meaningful degree. The basic premise of this research was that novice nurse educators must quickly develop their pedagogical content knowledge and yet are not equipped with the skills to do so. The two central research questions were informed by the relevant literature and two conceptual frameworks. How did novice nurse educators describe those experiences of constructing and administering exams during their first year of academic practice? Upon reflection, how or what did novice nurse educators change regarding preparation and administration processes? Open-ended interview questions allowed the novice's to provide lengthy answers but, at the same time, allowed for the use of prompts and probes by me when clarification was needed.

Narrative Methodology

This chapter explains the qualitative methodology used to research experiences of six novice nurse educators. Narrative research is twofold: It is a research methodology, and a way to analyze and create meaning from stories we are told and experiences we live (Bamberg, 2012; Clandinin, 2015; Merriam & Tisdell, 2016).

A central concept of narrative research is that meaning is a relational act brought to life by the storyteller¹ and the listener (Merriam & Tisdell, 2016). Bamberg (2012) made a distinction between types of narrative research, those being research *on* narratives, where narratives are the object of study, and research *with* narratives, where narratives are the means by which to explore something else, typically aspects of human experience. This study incorporated research *with* narratives. “Narrative research eschews methodological orthodoxy in favor of doing what is necessary to capture the lived experience in terms of their own meaning making” (Josselson, 2011, p. 225). Narratives most often rely upon one or more interviews but may also include analysis of documents (Josselson, 2011) such as journals, surveys, or in this case, exam results.

Story Theory

I am an educator, an obstetrical nurse, and a storyteller. I use stories throughout the course of lecture and clinical to enhance students’ understanding of concepts being discussed. I personally tell students a story of an unremembered perinatal loss, of how this loss shaped my practice as an obstetrics nurse and a bereavement counselor, of how it guided my nursing

¹ In keeping with the concept of story theory and interactional analysis, the terms storyteller (participant) and listener (researcher) are used throughout Chapters Three, Four, and Five.

interventions when caring for patients experiencing a fetal demise, and of how I instruct and test students regarding grief and loss in general.

The application of storytelling in nursing education is consistent with story theory (Ironsides, 2015). Narrative analysis, used in conjunction with story theory, has the capacity to systematically organize and make meaning of unique experiences (Bamberg, 2012). Wang and Geale (2015) argued for increased use of narrative methodology in nursing as nurse researchers uncover and expand upon the elements of nurse-patient interactions. Narrative approaches hold promise for nursing education, practice, and research.

Storytelling-as-research offers insight into storytellers' views of the world in which we live and move and have our being (Lewis & Hildebrandt, 2019). Storytellers give narrative form to experiences as they attempt to explain or normalize those experiences (Bamberg, 2012). "Stories organize and shape our experience and also tell others about our lives, relationships, journeys, decisions, successes, and failures" (Patton, 2014, p. 128).

Originally used to describe the nurse-patient dyad story theory describes a narrative that occurs through intentional dialogue (Smith & Liehr, 2014). The phases of inquiry in story theory are (a) gather a story regarding a challenge, (b) connect existing literature to the challenge, (c) reconstruct the story, (d) identify the challenge or complication within the story, (e) describe the story plot in detail, (f) identify movement toward a resolution, if possible, and (g) collect additional stories from like-minded storytellers. All questions used in this narrowly focused, descriptive study were designed to explore personal stories of expert-clinician-turned-novice-nurse-educators as they created, administered, and analyzed exams during the first year or years of full-time teaching in an associate nursing program.

Storytellers and Setting

Qualitative research is “social research that is aimed at investigating the way in which people make sense of their experiences” (Savin-Baden & Major, 2013, p. 11). When using narrative methodology researchers tends to concentrate more on whom to select rather than how many to select (Creswell, 2013). A purposive sample is the deliberate selection of a study population based on desired characteristics of storytellers (Maxwell, 2013). This study used purposive selection to recruit six storytellers who could provide the desired information.

Storytellers

A novice is a person who has less than one year of experience, typically job-related, in a current position (Benner, 2005; Dreyfus, 2004). Weidman (2013), and Kumi-Yeboah and James (2012) extended novice status to anyone with less than two and three years of experience, respectively. Nursing instructors must have a minimum of a master’s of science degree in nursing (MSN) and at least one year of clinical nursing experience. Storytellers for this study were full-time novice nurse educators from ACEN accredited (n = 4) or Texas Board of Nursing approved (n = 2) ADN programs. All storytellers were master’s prepared nurse educators with little or no formal educational pedagogy and minimal (less than three years) teaching experience.

Sample Size

A key feature of qualitative research is that research questions are typically limited to studying a specific phenomenon in a narrow context (Creswell, 2013). The listener’s intent is the in-depth explanation, description, and interpretation of a phenomenon rather than the ability to develop a generalization from the sample to a larger, more inclusive population (Maxwell, 2013). Therefore, sampling, in this case, was less a function of representative opinions but more a need for information richness (Guetterman, 2015).

Six storytellers agreed to participate in this study and provided contact information (Appendix D). Two other storytellers who were interested in joining the study were unable to meet the required timeline. The six storytellers were contacted by email and then by phone to arrange a date and location for individual face to face interviews.

Sample Characteristics

The sample consisted of novice nurse educators who were teaching full-time at ACEN accredited or Texas Board of Nursing approved institutions. The required characteristics of the storyteller sample were that they were full-time associate degree program nurse educators at accredited or Board of Nursing approved institutions in Texas, with at least seven years of experience as a registered nurse, and less than three years of experience as a nurse educator (Table 5). The average age of storytellers was 50 years of age and ranged in age from 32 to 61 years old. Five storytellers described their ethnicity as Non-Hispanic Caucasian, and one storyteller, Araceli, described herself as “All the way Hispanic!” despite having a common English surname. All storytellers described their gender as female. Their average years of nursing experience was 25.5, ranging from 7 to 40 years of practice with a combined total of 150 years of clinical expertise. The average years of experience as a nurse educator was 1.5 years, and this ranged from 8 weeks to 3 years. All storytellers held MSN degrees.

Table 5

Storyteller Demographics

Name	Sex	Age	Ethnicity/Race	Years of Registered Nurse Experience	Years of Nurse Educator Experience
Abbie	F	59	Non-Hispanic/White	35	1
Judie	F	61	Non-Hispanic/White	40	1
Jessie	F	34	Non-Hispanic/White	7	3
Megan	F	59	Non-Hispanic/White	34	2
Araceli	F	32	Hispanic/White	7	1
Melissa	F	55	Non-Hispanic/White	27	1

Storytellers had a range of nursing specialties (Table 6), which included critical care, emergency department, nursing administration, orthopedics, outpatient surgery, pediatrics, and family nurse practitioner. Storytellers held various professional certifications, which included certified pediatric nurse practitioner - primary care, critical care registered nurse, department of transportation medical examiner, family nurse practitioner, neonatal nurse practitioner, nurse executive, and progressive care certified nurse. All storytellers taught in multiple nursing courses

Table 6

Narrative Description of Storytellers

Storyteller	Narrative Description
Abbie	<ul style="list-style-type: none"> • 59-year-old Caucasian, Non-Hispanic female; 35 years nursing experience • Less than one year of experience as an ADN instructor • Taught concepts including gas exchange, nutrition for freshman level students, and professionalism for senior level students in a concept-based curriculum • Nursing specialty: critical care nursing • Was a hospital system nurse executive for 20 years before entering academia
Judie	<ul style="list-style-type: none"> • 61-year-old Caucasian, Non-Hispanic female; 40 years nursing experience • 1 year of experience as an ADN instructor • Was the only ADN instructor on her campus • Taught all courses in a concept-based curriculum • Was a family nurse practitioner
Jessie	<ul style="list-style-type: none"> • 34-year-old Caucasian, Non-Hispanic female; 7 years nursing experience • 3 years of experience as an ADN instructor • Taught mental health and foundations of nursing practice content in a traditional blocked curriculum • Nursing specialty: mental health and geriatrics
Megan	<ul style="list-style-type: none"> • 59-year-old Caucasian, Non-Hispanic female; 34 years nursing experience • 2 years of experience as an ADN instructor • Taught both levels of program • Nursing specialty: critical care nursing • One of only two instructors at the same institution
Araceli	<ul style="list-style-type: none"> • 32-year-old Caucasian, Hispanic female; 8 years nursing experience • 1 year of experience as an ADN instructor • Taught med/surge content; preparing to teach maternal/child content • Nursing specialty: medical/surgical nursing • Family nurse practitioner
Melissa	<ul style="list-style-type: none"> • 55-year-old Caucasian, Non-Hispanic female; 27 years nursing experience • 1 year of experience as an ADN instructor • Taught both levels of program • Nursing specialty: critical care nursing • The second of two instructors at the same institution

which included assessment, fundamental of nursing practice, medical/surgical, mental health, obstetrics, pediatrics, and pharmacology.

Setting

The six storytellers were novice nurse educators teaching in associate degree programs around Texas. Two storytellers lived and taught in metropolitan areas, one city had a greater mix of ethnicities and the other being predominantly Hispanic. The other four storytellers lived and taught in rural settings but were relatively close to metropolitan areas. In any case, the research was not dependent upon the interviews being physically conducted on location (Table 7).

The interviews were scheduled at a time and place of storytellers’ choosing. I met three storytellers at their campuses and two others at restaurants. The sixth interview was conducted online using a popular video conferencing platform due to weather-related logistical issues (both of our rural dirt roads washed away in severe spring storms). This option was less desirable as the ability to assess some non-verbal behaviors was lost (Deakin & Wakefield, 2014). However, the utilization of the video conferencing option decreased our logistical concerns and offered the flexibility not available with a standard face-to-face interview.

Table 7

Approximate Mileage from Lipan, Tx to Anywhere, Tx

Storyteller	Mileage
Abbie	125
Judie	320
Araceli	250
Jessie	60
Megan	90
Melissa	60
	One Way Total
	905
	Round Trip Total
	1810

Data Collection

Qualitative researchers draw upon and collect multiple sources of data (Creswell, 2014; Merriam & Tisdell, 2016). Bowen (2009) suggested researchers use at least two sources, if not more. The primary source for this study consisted of face-to-face interviews. Additional data were obtained from instructors' written exams including exam keys and item analyses. Finally, I kept additional notes in a reflective journal any time I thought of information I believed would be of importance.

Surveys

I contacted, via email, program administrators representing all 68 ADN programs in Texas. The goal was to get an estimate of the total number of novice nurse educators currently working full time. I hosted an unofficial survey on SurveyMonkey which opened on 7/18/2018 and closed on 7/31/2018. The survey asked one question: "*When starting the 2018 fall semester, how many nurse faculty will you have in your department with less than three years of teaching experience?*" I received responses from 19 program administrators (28.7 %), resulting in an estimated sample population of 77 novice nurse educators.

Official data collection started with the initial Qualtrics survey inviting storyteller participation. I disseminated the invitation to participate in the research to the same 68 ADN program administrators on February 23, 2019 for distribution to their novice nurse educator faculty (Appendix E). A web-link included in the email connected interested faculty to the Qualtrics survey. Out of the estimated pool of 77 potential storytellers there were 29 (37.6%) respondents. Storytellers were requested to provide data which included (a) years of experience as a registered nurse, (b) years of experience as a nurse educator, (c) highest degree earned, (d) nursing specialty, (e) nursing courses taught, and (f) professional certifications. The information

collected regarding years of experience in both the clinical nursing arena and the academic arena, and information about the highest degree earned was used to include or exclude storytellers.

Potential storytellers were excluded from the study via pre-set parameters if they had less than seven years of experience as a RN, more than three years full-time experience as ADN faculty member, any degree other than an MSN, or if they held the Certified Nurse Educator (CNE) credential. Of 29 respondents, almost half (48.2%) did not meet inclusion criteria and were prevented via pre-set parameters from completing the remainder of the Qualtrics survey.

Interviews

When one desires to “gain deeper insight into something, it is people’s everyday stories - their storytelling about work, practice, or experiences - that form a treasure trove of data that can augment under-standings of complex human actions and interactions” (Lewis & Hildebrandt, 2019, pg. 3). The primary data collection method used for this study was face-to-face interview using a non-traditional interview method called Interactional Analysis (IA). A subset of narrative research design, IA is a collaborative interview method that uses individual stories to gain insight and construct meaning regarding a phenomenon (Riessman, 2005). According to Riessman, the terms *storyteller* and *listener* convey the conversational nature of IA (Riessman, 2005; Riessman, 2008). I used these terms throughout Chapters Four and Five to refer to the storytellers and to myself.

This non-traditional interview process drew on three distinct attributes of qualitative research: (a) an emic perspective, (b) a holistic approach, and (c) an inductive and interactive aspect (Prion & Adamson, 2014). From an emic (insider) perspective stories and their meanings belonged to storytellers rather than to me (Holloway & Galvin, 2016). Next, the method was a holistic approach to storytellers (Prion & Adamson, 2014), that is, I assumed that storytellers’

values, beliefs, experiences, and perspectives were essential components of the phenomena being studied (Prion & Adamson, 2014). Finally, the study employed both interactive and inductive methods. The study was interactive in that I included parts of my story when suitable, and inductive because I adapted the inquiry process several times during the study as storytellers elaborated on unanticipated topics. In doing so, I gained a better understanding of topics.

A semi-structured interview with open-ended questions was used for the bulk of data collection (Appendix F). These questions guided the interview process but did not dictate the terms of any aspect of the interview such as a time limit or limitation of topics. According to Riessman (2005, 2008), IA also allows the listener to take prompts and further interject personal experience into conversations. This conversational nature of interviews and the resulting stories is the core of IA. Storytellers' narratives elicited immediate follow-up questions based on the course of the conversation.

Interviews were conducted on dates and at times and locations of storytellers' choosing. These interviews were lengthy, in-depth, and ran substantially longer than typical qualitative interviews. This was due to the conversational give and take nature of IA. I spent from three to six hours with each storyteller. Direct observation (with the one exception) allowed me to create field notes documenting non-verbal behaviors which added to the story, particularly during data analysis.

Recording of interview sessions is standard procedure in qualitative research (Merriam & Tisdell, 2016). With permission of storytellers, each interview was digitally audio recorded. Each audio recording was uploaded to Temi.com (hereafter referred to as Temi), an online advanced speech recognition platform, immediately after the interview was completed. Online files were protected by industry standard encryption protocol that prevented tampering with and

forgery of audio files (Turner, 2014). Local recordings were deleted from my digital recorder as soon as successful transcription was confirmed.

Digital recordings and transcripts were maintained on the Temi website until the first transcription pass was completed. I listened to each recording to verify the accuracy of the transcription making corrections as needed. The online recordings were deleted from the Temi website once all interviews were transcribed and downloaded to my personal computer.

Field Notes

I took notes during interviews only when absolutely necessary. I created field notes (Figure 9) as soon as possible, in privacy, after the conclusion of interviews. I attempted to capture the essence of non-verbal behaviors, to note any observations regarding tone of voice, to record questions storytellers asked me, or to reflect upon unplanned incidents. Field notes also included my thoughts unrelated to the current storyteller, but that occurred to me during the course of the interview. The notes were added to the transcripts during the second transcription pass to remember a particular point, thought, or observation.

Figure 9

Field Notes in the Transcript

Storyteller: I had a learning curve there. I didn't know Blackboard.

Listener: Blackboard's not that bad. (*Exasperated look given to me; No TPCK; I need to hush*)

Documents and Artifacts

It is common to augment qualitative interviews with documents and artifacts (Merriam & Tisdell, 2016). Although the terms are used interchangeably by researchers, printed materials are considered documents whereas artifacts are objects. Exams are an example of private documents

not available to the general public. Newspapers are popular culture documents (Bogdan and Biklen, 2011) produced to inform the public and are widely available.

Exams

I requested exams, including exam keys and item analyses, to use as additional background data. The provision of exams was entirely voluntary and not all storytellers were able or willing to provide them. The item analyses and exam characteristics (KR-20, PBI, DI) were discussed only if storytellers indicated a desire to do so but were otherwise not included in stories or data analyses. I analyzed exams according to currently accepted standards (Appendix G). Exam characteristics (KR-20, PBI, DI) were aggregated and reported in a table (Appendix H). I also reviewed individual questions (n=370) for item writing flaws and reported those results the same table (Appendix H).

Newspaper Articles

Newspaper articles function as primary or secondary sources of data depending on the perspective of the journalist. One storyteller offered to me, unsolicited, two articles from the local newspaper to provide context and background information as to why her institution had a problem with faculty retention. My field note regarding the conversation related to whether or not grant money could be used for student needs said: *No words; A look; Handed me the newspaper – Scandal.*

Reflexive Journal

A reflexive journal (Figure 10) was a personal diary in which I described the entire research process including methodological and logistical decisions, the reasons for them, and personal reflections in general regarding what was happening during the research (Cohen & Crabtree, 2006). My story was, unintentionally, the first story in this endeavor. Additional entries

Figure 10

Reflexive Journal

The first story -- Excerpts from Wild Tears and Worship -- September 13, 2017 –

It has been two weeks of wild tears and worship. This dissertation journey is not going well, and I haven't even written an official prospectus yet. John and Shae (names changed) can attest to my state of mind. In three years, no one in our cohort has ever seen me so completely beside myself, so insanely angry. Then again, there's never been anything to be mad about at the U of A. The journey has been an awesome experience thus far. I can tell you that this particular episode wasn't pretty. The lack of communication has been appalling, the major source of my anger. At one point, I called the Office of the Graduate Registrar planning to quit the program entirely and possibly transfer to another university. I was throwing a Nice Southern Lady hissy fit the way my Nice Southern Lady mama taught me. Basically, I refrained from using profanity. The pleasant voice on the phone suggested that I come to campus and make an appointment to talk with someone ... oh no ... Oh No ... No more Nice Southern Lady, the Native Texan just slipped her leash ... "Ma'am . I'm . in . Texas! There's no one here to talk with!" and I burst into tears. With my husband away on a business trip, it was just me and two dogs. I felt so very alone, abandoned by the U of A. Last night, I decided that I could no longer hold on to the anger and I was tired of crying. I printed all materials related to the comprehensive exam and my now officially defunct unofficial prospectus along with items from work, former and current. I selected worship music from my playlist and cranked up the volume on the Bose. With a deep breath and more tears, I threw everything in the fireplace and submitted it all as a burnt offering to God.

Crider (2017).

in the journal included (a) the change from a methodological study to a qualitative study, (b) the decision to add Shulman's PCK (1986) as the major framework in combination with Benner (1984), (c) the decision to remove Duchscher's (2008) transition shock theory from the framework, (d) the creation of a mind map to organize the various permutations of PCK and the relation of PCK to nursing education, and (e) concern about recruiting storytellers, as well as many additional conversations with myself. Diaries of this nature are often cathartic (Cohen & Crabtree, 2006), as are burnt offerings.

Data Analysis

The focus of this study was narrow as were criteria for selecting storytellers. Those narrow criteria resulted in a homogenous sample that, according to Maxwell (2013), was typical of purposive sampling. Data were collected through extended interviews using semi-structured

open-ended questions. True to the intent embodied in IA each interview was a collaborative experience between nurse educator colleagues and yet kept storytellers' perspectives as the focal point of the experience.

First Transcription Pass: Error Mitigation

The advantage of using Temi was that transcripts were computer generated verbatim in minutes. I performed the first transcription pass by listening to the online audio file while simultaneously correcting transcription errors in the online editor. Once all interviews were similarly edited, transcripts were downloaded to my personal computer, removed from the Temi website, and the account was closed.

Second Transcription Pass: Addition of Field Notes

During the second transcription pass, I removed all personal identifying information such as names and workplaces from transcripts. I proceeded to edit dysfluencies and “messy” speech and documented non-verbal behaviors within the transcript.² The result of this second transcription pass was the beginning of the verbal portrait that told the story of each storyteller's experience.

Third Transcription Pass: Thematic Analysis

As the interview technique for this study, IA provided for dialog between peers rather than mere one-way discussions. The results are rich, sometimes dramatic, stories that go beyond the mere retelling of events. I kept stories “intact” as suggested by Riessman (2008) and proceeded to analyze data by reviewing individual stories according to their own merits. The goal was to preserve the sequence and the wealth of detail (Riessman, 2008).

² Narrative analysis emphasizes the content of speech (Reissman, 2008). One is allowed to edit “messy” spoken language to make the story more readable.

The experiences of storytellers, plus the literature and conceptual frameworks shaped the thematic analysis of data. I did not do conventional coding of data. In conventional coding, data chunks (meaningful words or phrases) basically break up a whole story into words and phrases to bundle those with other words and phrases that are shared across all storytellers' stories (B. Atkinson, personal communication, September 15, 2020). The conventional approach disfigures the portrait of each story and discounts its holistic meaning to focus only on those bits that are similar or different from other storytellers', even if meaningful in some way. Thematic analysis allowed me to probe stories for meaning about creating and administering exams. Looking through the lens of Shulman's PCK (1986) and Benner's novice to expert (1984) I examined each story for (a) told events, (b) implied events, (c) main idea or theme as directly stated, and (d) idea or theme as indirectly stated (Riessman, 2008).

Consider Judie's story: Judie was an expert nurse clinician and was the first APRN in her small town. However, she was a novice nurse educator despite her 40 years of clinical experience. It was through this lens that I analyzed her story. For example, when confronted with imminent failure, did Judie's 40 years of clinical experience help due to the fact that she had faced many challenges and unknowns successfully, or increase her dismay and sense of outrage that she was failing after being so successful for so long in an area where she was an expert?

Cross Case Comparison

Although each story was analyzed separately many themes were shared across narratives. Cross-case comparison of individual stories highlighted similarities and differences between stories. For example, every story had at least one failure and every story had a success. Every story shared a storyteller's response to perceived failure. In keeping with the IA interview method, I shared my failures as well as my successes when appropriate.

In thinking about each story, I took one statement from each interview that seemed to define that storyteller's experience. Abbie was 8 weeks into to her nurse educator career after having been a hospital administrator for 20 years. She had stepped into the educator role when the previous occupant resigned over the Christmas holidays. She was literally racing to catch up to seasoned faculty and even students, especially in terms of testing, hence the title "Racing to Keep Up."

Judie proudly proclaimed several times that she was old school, as if old school were a badge of honor. Nevertheless, she was in profoundly deep trouble. I had been in her shoes as a novice music educator (1982-83) hence the title "Old School and Empathy."

Jessie had planned to transform the presentation of the content in the foundations of nursing course. However, many of her plans were thwarted. What came to my mind when thinking about her story was the line from "To a Mouse" by Scottish poet Robert Burns (1787) in which he wrote, "The best laid schemes o' mice an' men gang aft a-gley." Simply put, no matter how much preparation is done, something may still go wrong during the implementation of the plan. The "Best Laid Plans" accurately characterized Jessie's tenure. My second title choice involved a road paved with good intentions.

Megan's institution was using the Assessment Technologies Institute (ATI) Custom Assessment Builder to create exams (Appendix I). The drop-down menu items leave little to be discussed regarding the creation of exams. The tool will even create an exam blueprint. I remember exclaiming in amazement, "You don't need any prior experience in exam creation to create an exam!" No prior experience was needed hence the title of the same name. Melissa, who was at the same institution (but a different campus) as Megan, seemed almost as distraught as Judie at times. She emphatically proclaimed, "This isn't what I signed up for!" when speaking of

the psychological trauma associated with being the novice educator and revisited the concept several times during the interview. I even refrained from discussing certain topics out of concern to Melissa's psychological well-being. "This Isn't What I Signed Up For" seemed a natural title for her story.

Of all the storytellers, Araceli reported the best experience during her first year of teaching. Araceli told me of her mentor, Jean, who had a horrible first year as an educator. Jean was therefore determined that Araceli receive a positive mentoring experience. The title "Teamwork Make the Dream Work" was a fitting title.

Ethical Considerations

Risk

The population for this study was novice nurse educators at ADN programs in Texas. This was not a vulnerable population. There was little risk of physical harm resulting from study participation. The primary risk, however minimal, was psychological distress due to the potential for inducing anxiety, stress, and embarrassment related to interview topics. All storytellers were informed verbally and in writing that they could stop interviews at any time without penalty.

IRB Approval

The University of Alabama (UA) provided Institutional Review Board (IRB) approval before beginning the research (Appendix J). IRB approval was later renewed for a second year (Appendix K). Collaborative Institutional Training Initiative (CITI) program training related to human subject research was completed before research began as required by the IRB.

Informed Consent

Informed consent was presented at the beginning of the Qualtrics survey during initial contact with respondents (Appendix L). Consent was required before proceeding further in the

survey. The informed consent was then reviewed at the beginning of the face to face interviews. Storytellers were informed verbally and in writing of their rights as human subjects. Storytellers were aware that they could quit the interview at any time without repercussions, and were then asked to date, time, and initial a printed copy of the previously agreed upon electronic consent.

Confidentiality

Interviews took place at mutually agreeable venues such as offices or restaurants. Storytellers were informed that all information gathered would remain confidential. They were also informed how data would be digitally or physically secured and maintained. Storytellers data were reported using pseudonyms. No institutions were named at any time. Transcripts were transcribed by online advanced speech recognition software and were read only by the me. Transcripts were deleted from the online site upon completion of data analysis. All digital data collected were maintained on a password-protected laptop computer owned by me. Printed material was maintained in a locked file cabinet in a locked detached office located at my residence. After completion of data analysis, printed material was scanned and saved digitally to a flash drive. Printed material was then shredded, and the flash drive was placed in a bank safe deposit box. I have sole access to this safe deposit box and will be retained for seven years as required by the University of Alabama. After seven years, the flash drive will be destroyed.

Participation Incentives

Upon completion of the interviews, storytellers were given a set of nurse educator pedagogical tools from Nurse Tim Incorporated as a token of appreciation for the extended period of time required of each storyteller.

Trustworthiness

Reflexivity, Reactivity, and Researcher Bias

Reflexivity

Reflexivity is the process by which researchers engage in self-appraisal (Berger, 2015). Reflexive researchers recognize and take responsibility for their own position within the research (Berger, 2015). Reflexive researchers acknowledge the effect that position may have on setting, people being studied, questions being asked, data being collected, and interpretation of data (Berger, 2015).

Qualitative researchers are “positioned” (Berger, 2015; Creswell, 2013; Munhall, 2012). The researcher may have an emic (insider) position, an etic (outsider) position, or move from etic to emic during the course of the research (Berger, 2015; Prion & Adamson, 2014). Positioning includes characteristics in common to both researchers and storytellers (Berger, 2015), in this case, nurse educators and ADN program settings.

One might assume a certain familiarity between myself and the storytellers simply because we were all nurse educators. However, research involves power (Marshall & Rossman, 2016) and therefore positioning, at times, reflected differences between storytellers and me. The fact that I was an experienced nurse educator and doctoral candidate while storytellers were novice nurse educators held potential to influence the course of discussions, hence the need for reflexivity on my part. Indeed, storytellers responded several times to questions by stating “You’re getting your doctorate” or “You’re teaching me something new here.”

Reactivity

Reactivity is the influence researchers knowingly or unknowingly have upon the research process and storytellers (Maxwell, 2013). In quantitative research researchers set in place strict

controls to minimize reactivity. In qualitative research one expects a certain degree of reactivity (Prion & Adamson, 2014). Rather than control for the possibility of reactivity, researchers must seek to understand and use reactivity to the benefit of both researchers and storytellers (Maxwell, 2013; Prion & Adamson, 2014). The emphasis in IA is on dialog between storytellers and listeners. Reactivity was an expected and even desirable feature. Both the storytellers and I participated in conversations and we created meaning because of these conversations.

Researcher Bias

Bias, experiential knowledge that researchers bring to research settings, is typically seen as undesirable. Munhall (2012) described such as a state of “unknowing” (p. 364), which is essential to understanding the meaning of storytellers’ experiences. However, Maxwell (2013) notes that eliminating bias would “discount a major source of insights, hypotheses, and validity checks” (p. 45). Using the IA method, I recounted personal stories numerous times during conversations; for example, a less than pleasant experience when implementing a concept-based curriculum. Bias was all but impossible to avoid in such cases and therefore was acknowledged and dealt with by including the bias, when present, in each story.

Strategies to Maintain Trustworthiness

Strategies used to maintain trustworthiness included instant member checking, audit trails, and reflexive journaling (Berger, 2015; Cohen & Crabtree, 2006; Marshall & Rossman, 2016). Member checking, also called member validation, invites feedback by storytellers (Holloway & Galvin, 2016; Maxwell, 2013). The use of IA lent itself to *instant* member checking because of the conversational aspect of interviews. By providing member checking storytellers immediately validated my understanding and interpretation of data (Holloway & Galvin, 2016).

Audit trails provided a way of demonstrating how data were managed (Holloway & Galvin, 2016; Marshall & Rossman, 2016) during the research starting with data collection and continuing through the report of findings (Cohen & Crabtree, 2006). The audit trail for this research started with the initial contact (7/18/18) of ADN program administrators and continued with data collected by the inclusion criteria survey.

Summary

This chapter described the method by which novice nurse educators and their experiences of creating, administering, and analyzing exams was explored. Interactive analysis, a non-traditional qualitative interview method, guided the interview process as well as analysis of data. The recording of stories provided a foundation upon which to conduct rich, meaningful research in nursing education by asking novice nurse educators to tell stories of their experiences during this transitional time in their academic careers and from these stories identify significant and informative narratives.

CHAPTER IV

TELL ME A STORY

He who knows and knows he knows, he is wise — follow him! ~ I. A. Burton

Stories are a fundamental dimension of nursing practice (Smith & Liehr, 2014) and, by extension, nursing education. Nursing academia has embraced the power of storytelling in recent years (Fitzpatrick, 2018; McDermid et al., 2013, 2016; Phillips et al., 2017; Sabio & Petges, 2019; Timbrell, 2017). Nurse educators use stories of personal and professional experiences in both lecture and clinical to keep students engaged (Billings, 2016; Sabio & Petges, 2019). Nurse educators also use their personal and professional stories to create meaningful simulation scenarios by which they teach the complexities of client care and clinical judgment (Sabio & Petges, 2019; Timbrell, 2017).

The application of storytelling in nursing education is consistent with story theory. Storytelling is unique in its ability to lend meaning to shared experiences (Lawrence & Paige, 2016). The purpose of this study was to examine the experience of novice nurse educators as they prepared, administered, and analyzed exams during their first year of teaching. Using a non-traditional interview technique known as IA, I conducted in-depth face-to-face interviews with six expert-nurse-clinicians-turned-novice-nurse-educator. Interactional analysis was also used to analyze data.

I asked storytellers to tell me about their experience regarding preparation of the first exam and then to reflect upon the most recent semester/year and tell me what they wished they had known at the beginning of the transition to nurse educator process. Abbie, Judie, Jessie,

Megan, Araceli, and Melissa shared their experiences related to the testing process during their first years of teaching. In keeping with the chosen interview method, I also contributed to narratives by telling parts of my story when applicable. In so doing, storytellers and I reflected upon personal circumstances and professional situations in which nurse educators live and move.

In this chapter I offer six narratives, one for each storyteller's experience, based on the interview transcripts and organized by the chronology of events composing exam experiences. These narratives include my responses to problems that surfaced during interviews, in keeping with IA technique, so that I took on the role of consultant, mentor, or instructor in addition to that of researcher. Personal conversations reported here were essential to establish a relationship of trust. These storytellers were recounting incidents that led to despair, anger, and shaky self-confidence, whereas before their entry into academia they had been the resource that other nurses trusted to handle any patient care conundrum that arose in the course of clinical practice. Following those narratives, I present the themes emerging from further analysis of data.

Six Stories

Throughout the spring and early summer of 2019, I met in person with all the storytellers except one. Severe spring thunderstorms and the unpredictable nature of localized flooding forced Melissa and me to meet online via the Zoom video conference platform. The stories took multiple twists and turns during the extended interviews. So compelling were the personal narratives that, at times, it was difficult at times to keep the storytellers focused on the task at hand. Eventually, all stories returned to the topic of exam construction, exam administration, and occasionally exam analysis.³

³ Again, according to (Reissman, 2008), one is allowed to edit "messy" spoken language to make the story more readable. The conversations contained within this chapter are edited accordingly.

Abbie: Racing to Keep Up

Abbie and I met at her campus and proceeded to eat a late lunch at a little tearoom in town, my treat. Our initial conversation was very general and relaxed: horses, marriages, children, church, careers. “Once I heard you say horses, I knew we’d be friends,” she said. A nurse of 35 years, most spent as a rural hospital nurse executive administrator, Abbie had been faculty for only eight weeks at the time of our interview. She described the transition to academia in terms of racing stating:

It’s been 20 years since I’ve been at the bedside. I’m scrambling for traction. Can I still factor ABG’s? Can I teach dosage calculation? Can I teach dimensional analysis? I don’t know. I can recruit another doctor; I can find another \$180,000 in the budget. The way teaching is delivered, the methodology. So much has changed! I’ve been running like a little race car to catch up.

The First Exam

Creation

I asked Abbie to tell me about the experience of preparing the first unit exam. Abbie’s program had a robust test bank explicitly written for the state’s concept-based ADN curriculum. One simply selected appropriate, previously validated items from the test bank. She explained:

We team teach, so it’s a team exam. I’m responsible for portions of it rather than the entire exam. In terms of preparing, it was a quick ‘show-me-the-test-bank.’ My assigned concepts were nutrition, gas exchange, and perfusion and oxygenation. So, I sorted by my concept, selected the questions, then threw them on the exam. I just made sure I covered content. So, I was kind of coming at it backward.⁴

Many an educator, novice and experienced, “come at it backward” when creating exams. Abbie was quick to point out that the backward approach did not mean that she was teaching to the test.

⁴ What Abbie did not know, nor did I tell her, is that I was briefly involved with writing exam items for the state Concept Based Curriculum. I did not tell her because I did not want to introduce my bias into the conversation.

Administration

New testing technology was a significant concern for Abbie. Colleagues were available whenever needed to troubleshoot technology issues saying, “We’ll just get you up and running.” Abbie, however, preferred her own learning approach saying, “I need to understand the literal mechanics of the process. Adult learners learn by doing, so let me do it because ‘let me show you’ doesn’t work for me.”

Abbie described the process by which students tested. The program used a sophisticated software package to mimic an NCLEX testing environment. Exams were administered on the same day, at the same time, in multiple rooms with multiple proctors. Students were allowed to review incorrect answers immediately upon completion of the exam, albeit with no discussion or feedback.

The Exam Review

Which is not to say that there were no complaints. I recalled and told Abbie about my first exam review experience as a novice nurse educator. Students were argumentative when presented with answers and rationales that they thought incorrect or unfair. It was a memorable experience and sent me on an unanticipated headfirst dive into adult learning theory. In general, I learned that students do not make the distinction between high-stakes exams and typical unit exams. My subsequent exam reviews started with a promise to be fair, perhaps even merciful if appropriate, and a gentle admonition to students regarding their behavior during exam reviews. Abbie responded, “Nursing students are goal driven. All tests are high stakes in their world. So, they can be a contentious lot. We get a lot of arm wrestling, which is to be expected.”

Having been in leadership roles for most of her nursing career, Abbie put a priority on mentoring her students and modeling professional relationships. She allowed students to question

the rationales of the exam items. To their declaration of “The questions, the way they’re written, there’s more than one right answer. We just know there is!” Abbie responded, “That’s called a distractor. It distracted you from the one right answer. It means that you either know or you didn’t know it well enough.”

To me, Abbie explained, “So, the students don’t like hearing that. It falls back to them in terms of their preparation and study.” Additionally, Abbie allowed students to voice their concerns over perceived inconsistencies between faculty. Inconsistency, according to Abbie’s students, equaled different teaching styles employed by individual instructors. She continued:

I’m really trying to invite them to be something they can’t really conceive themselves to be yet because they can’t see the whole tapestry and us instructors can. One of the things I’ve laid out with my students from the beginning was that this is a very uncomfortable process. It’s a transformation, and it requires a methodical approach by a program to effect change. We are un-structuring you as a human being and re-structuring you as a registered nurse, and that’s a role assault. It’s a lot of stress.

I had never considered the idea of such a change to be an assault. I shared my concept of student transition as being one from a consumer of health care to a provider of health care. Abbie had never considered the distinction between consumer and provider. I decided to add the concept of “un-structuring and restructuring” to discussions with future storytellers should the opportunity present itself.

The Next Exam

By the fourth exam, Abbie was somewhat confident, “fair to middling,” about the exam construction process. She self-identified a priority need of how to construct exam items at a higher cognitive level. “It doesn’t trouble me to ask someone for help. You go to somebody, you know Benner’s theory, you need the person just one level up from you” in terms of expertise.

The lead instructor, also known as the “Test Commander,” is a role that alternated among the faculty. Abbie was scheduled to be the Test Commander for the sixth unit exam. She

proceeded to describe the planning process for exam construction saying:

Two to three weeks before the test, Sally (the co-commander) and I will send an email saying, ‘Okay team, I need eight questions on this and six questions on that.’ Then, I post (a draft), and they put their questions on it. Then, I’ll tell everybody to give me some extra questions. Afterward, Sally and I will balance the exam.

I had additional questions regarding what I perceived as a backward-looking process.

Balancing the exam and creating the test blueprint seemed to be an afterthought and I said as much to Abbie. She responded, “The test commander has a blueprint in mind. That’s what comes to me in the email. So, there is a blueprint, and it goes out to students and faculty.” I had my doubts as to the usefulness of this blueprint as described by Abbie, so I pressed the issue a little. “How does Bloom’s taxonomy come into play when balancing your exams?” I asked to which she replied:

I’ve not had any training with Bloom’s taxonomy. I know we can’t load it (the exam) up with 90% elimination content when we’ve got five other topics to cover. That one is simple, but then to assess the test for the other ways, those pieces of clinical judgment versus just a plain knowledge question. I have yet to learn that.

I was still not convinced about whether Abbie realized the significance of having a blueprint to guide test construction. This was not surprising since Abbie was only 8 weeks into this novice year. Further discussion revealed that, contrary to previous statements, students did *not* receive the blueprint, nor were they given a study guide. “We talk about that intermittently in our freshman team meeting. They know the exam is going to cover these concepts and those concepts. So, no blueprint, no study guide, they should be making their own.”

Speaking of Bloom and Benner

Bloom

Abbie engaged the use of exam item writing cards to assist with creating items at the application and analysis levels. She explained:

It (the cards) helped me not having any tutorial guidance for item writing. I print the stems and get started. The cards cue you to parts of the nursing process. Then I look to see if those questions are more than just basic remembering questions and tweak accordingly. I ask myself, ‘Is this a question that can be revised because it's easier to revise them.’ So, at least it was better than starting from scratch.

I discussed the concepts of knowledge, comprehension, and application (the original taxonomy terms) using my cell phone as an exemplar and related it to likely student thinking during an exam (Figure 11). “That’s language I can use,” Abbie said. We discussed ways to advance the cognitive level of exam items by changing the verbiage. For example, “The nurse understands ...” (usually comprehension) versus “The priority action is ...?” (usually application or analysis).

Figure 11

A Conversation About Cognitive Levels

Me	Abbie	Cognitive Level	and the student should be thinking
What is this device?	That’s a cell phone.	That’s Knowledge	I know what “it” is.
What do you do with it?	You communicate with other people.	That’s Comprehension	I know what “it” is, and I know what “it” does.
How do you use it?	You dial or text or email or ...	Still Comprehension	May I show you how to do “it?”
Demonstrate the process, please.	She called my phone.	That’s Application	I know what “it” is, I know what “it” does, and I know how to do “it.”

Program-specific “housekeeping” issues (actually, best practice and recommendations from NCSBN) were also factors for Abbie to consider when item-writing. For example, patients were to be referred to as clients, each distractor had to start with a capital letter and have a period at the end of it, and a single distractor could not combine correct content with incorrect content.

Benner

I asked Abbie to place herself on Benner’s novice to expert timeline. She responded, “Well, there are different roles.” Abbie, a former chief nursing officer, had just introduced a second new concept into the blend of interview questions. IN this dissertation I addressed the

expert nurse clinician versus novice nurse educator in the literature review. I did not, however, anticipate the need to delineate expertise by clinical roles. I decided to observe whether future storytellers delineated their expertise according to role and interject the concept if they did not.

Abbie continued:

As a clinician, I would say I'm competent because I haven't been at the bedside in 20 years. I'm safe, but there are knowledge gaps that I'm having to rebuild. As a manager, I would say that I'm an expert in terms of controlling, planning, and directing for outcomes of a facility, interviewing, budgeting. As a researcher, I'm an advanced beginner. I can read and consume it. I don't know enough to evaluate it. As a teacher, I would hesitate to say that I'm competent. I'm an advanced beginner there too.

What I Wish I Knew When

I asked Abbie to reflect upon the last few weeks, upon what she knew currently versus what she wished she had known at the beginning of her journey. She described the orientation process as too much, too fast, with no consistent organization. "I've felt warmly welcomed. Fortunately, I'm pretty self-directed. Still, it took me three weeks to get organized."

Our Collective Story: The NASCAR Driver and the Coach

Abbie and I parted after almost three hours. I was able to impart words of wisdom regarding teaching strategy, research techniques, and clinical assignments. I was able to deliver instruction related to Bloom's taxonomy and item analysis of exams. Abbie interjected two new concepts into the conversation, (a) the un-structuring and re-structuring of students from lay person to professional registered nurse, and (b) different clinical roles and the expertise within those roles.

I received several emails from Abbie in the weeks after our interview, in which she updated me on her progress. She was attempting to track improvement in item writing statistics but was thwarted by the structured, almost regimented process. The test commander role rotated among faculty. The test commander made final edits to items before posting the exam. "The item

bears the test commander's name. The edits are minor, so I can still see how each item fared and how each distractor performed. But I have to develop a better system to keep up with the changes." Several weeks later, I received an email in which she expressed excitement regarding a professional development opportunity: "The dean is paying for me to take an item writing course from the NCSBN this summer!" She later reported that she completed two of the courses and, in doing so, had gained a solid foundation for item writing and revision.

Judie: Old School and Empathy

Judie was the sole faculty for the ADN program on her campus. The institution had been faulted for financial mismanagement of state nursing shortage grant funds. As a result, the institution had to return a significant amount of money to a state educational agency. College administrators blamed the ADN faculty in public and in print. Consequently, the ADN nursing faculty resigned. "The program lost everyone. All the ADN instructors left." Judie, with minimal teaching experience, was tasked with rebuilding the program in this challenging environment.

An APRN with over 40 years' experience, Judie was no stranger to challenging situations. As the only RN instructor on her campus, she was expected to be with the cohort for two years, after which she would admit a new cohort. She described the obstacles she faced in her teaching environment which were lack of support, "on top of the normal teaching things, I don't have the support of colleagues or administrators"; lack of supplies, "I don't even have a key to the supply closet"; and many other indicators of a hostile work environment.

I empathized with Judie by recalling my one and only year as a choral director in a small, rural east Texas town. I was 21 years old, teaching students only three to five years younger than me, had little administrative support in the form of mentoring, and insufficient resources. I was too inexperienced to realize that I was in serious trouble and I was too stubborn to quit. That one

year of teaching destroyed my self-confidence. I never wanted to teach again, *ever*. Aside from age, Judie's current situation closely mirrored my own experience. Judie agreed, saying:

I've had people tell me, 'They set you up for failure' and 'You're not going to make it' and 'They don't intend for you to make it.' I'm just like, 'What the hell?' Something is wrong here. I'm in a toxic environment but I'm stupid because I always rise to the challenge. If I was smart like the other nurses, I'd probably just leave.

Judie worked throughout the summer of 2018 to create all first semester courses of a concept-based curriculum. Her cohort of ten students was admitted in fall 2018. "I was putting little pieces of the puzzle together. Someone put pharmacology in the last semester. They (students) have to give medications in the first semester. So, I taught pharmacology as part of the skills class." Judie was a "one-man show" as it were, so she altered the curriculum. The second-semester courses were written while she taught the first semester courses, and she was in the process of writing the third-semester courses when we interviewed.

Judie was selecting the curriculum from a state approved inventory of courses used by public colleges and universities with healthcare related technical programs. She was unaware of the state board of nursing approved concept-based curriculum in which pharmacology was integrated throughout the curriculum. "I don't know what that is," she said, "I'm just putting the pieces of the puzzle together." I informed her, "You don't have to build the curriculum.⁵ You don't have to write the exams. It's already there in a package. The puzzle is already completed."

The First Exam

Creation

Judie discussed events surrounding the first exam. She was informed by the licensed vocational nursing faculty that she could not use the same book adopted by the other ADN

⁵ As with Abbie, I did not intend to tell Judie about my involvement in the state concept-based curriculum. I let it slip inadvertently. I decided such was meant to be. Judie needed help, and I was in position to assist her.

programs at sister campuses because “the test banks had been used up.” She chose the book anyhow and used a test bank from a different textbook. “I picked and make sure I taught it (content) or make sure that it’s something they need to know.” Like Abbie, Judie had no knowledge of Bloom’s taxonomy. “Dr. Jones said, ‘An RN exam should be written at the application level.’ I didn’t know what that was.” I repeated the conversation I had with Abbie regarding cognitive levels (see Figure 11) to familiarize Judie with the taxonomy concepts. Nor did Judie realize the importance of a test blueprint. When I questioned her about the use of test blueprints, Judie referred to the ADN program policy stating, “I know that there is a policy here about test blueprints, but I don’t use it ... I don’t have a written test blueprint.”

Administration

Judie experienced a series of technology-related misadventures associated with the administration of the first exam. Some people are opioid naïve; one takes a potent muscle relaxer on Friday evening and sleeps until Monday morning. Judie, by her own admission, was technologically naïve. “I don’t know computers!” she stated and more than once. Before her arrival, students tested at one of four remote campuses, a common practice in the current online, technology-driven teaching environment. However, Judie was unfamiliar with proctored testing and disagreed vehemently with the practice exclaiming, “They’re being tested with proctors. Proctors! ... When our students test, we (instructors) are with them! We don’t use proctors!”

Judie implemented a traditional computer testing experience wherein all students tested at the same time at the same campus utilizing the testing center and the Blackboard learning management system (LMS). The plan went awry though. “I couldn’t get Blackboard to work. We went up to the testing center, and I couldn’t make the exam open.” Judie went “old school” saying, “Now you guys get to take it on paper and I printed it and gave it.”

The testing conundrum was not Judie's first mishap involving LMS and related technology. She inadvertently posted a student's disability related accommodation request to the LMS, not once, but twice. Add privacy violation to test administration difficulties and a knowledge deficit regarding technology, and I could understand Judie's frustration. "Blackboard isn't bad once you learn its intricacies," I said, which earned me an exasperated look. "It's getting better," she said, "The computers threw me and made me question my ability to teach."

The Exam Review

A paper test is, as Judie said, old school. "They hated it. Mostly, they complained because they *wanted* it on the computer." I told Judie that best practice was to expose students to a simulated testing environment that mimics the NCLEX as closely as possible. "Well, they should know the content, whether it's on a computer or on paper!" she said.

The Next Exam

Judie incorporated many changes in the next exam. "I changed the questions from memorization to understanding and putting things into place." For someone who confessed to not being familiar with Bloom's taxonomy, her descriptions sounded similar to the revised taxonomy (Anderson & Krathwohl, 2001) in which action verbs (remembering, understanding, applying) are used in place of passive descriptors (knowledge, comprehension, application). "The other thing I started using was the select-all-that-apply (SATA) questions, and they (the students) didn't like that."

Judie described another misadventure common to all nurse educators. She included an item on the exam that addressed content that was not included in the assigned reading. I cautioned Judie about holding students accountable for material to which they had not been

exposed. “It was in the previously tested chapter,” she told her students, “If you learned it for the first test, why can’t you answer it on this test?””

We reviewed the syllabus and reading assignments. Students had a valid argument since there was no mention of cumulative exams other than the final exam. I suggested including a statement in the syllabus that would allow for the use of previously tested content, perhaps one or two items, on subsequent exams. “Well, I didn’t know. I thought if you learned it once, you learned it.” She was right, of course, from an old school point of view.

What I Wish I Knew When

The circumstances in which Judie was mired were distressing. It was a challenge to keep her on task during the interview. In the end, her story was less about the first-year exam experience and more about the first-year experience as a whole. I asked Judie to reflect upon the last few months of her journey, upon what she knew currently versus what she wished she had known at the beginning. “My clinical background is really solid. The problem is I don’t have the polished words to use for some of the things that I’m doing.” She described herself as an expert nurse clinician and vacillated between advanced beginner and competent in academia:

Advanced beginner? No. Competent. No, not competent. Well, competent in teaching. I can teach, I can do tests, I can do handouts. I can walk in, and I have my lesson plan outlined, and I can teach. The computers threw me.

Our Collective Story: Old School and Mentor

I empathized with Judie regarding everything she was experiencing. Her current dilemma reminded me of my failure almost four decades ago. Therefore, I tried to respond to her concerns by providing reassurance and even volunteered to be a mentor, to which she tearfully agreed. A tech-savvy student in the cohort was re-creating the in-class quizzes using Kahoot, an interactive game-based quizzing platform (Kahoot!, n.d.). So, I taught Judie how to use Kahoot and Poll

Everywhere, a real-time, interactive audience response system (Poll Everywhere, n.d.). I left teaching tips, tricks, and tools, some of my own making, designed to engage students in active learning. Finally, I left textbooks for the students along with a bevy of supplies, surplus (taken with permission) from my own institution.

I did not hear from Judie for several months despite multiple emails inquiring about her mentorship needs. I thought she might have followed through with retirement. Such would have been surprising though, so committed was she to successfully graduating this group of students. However, I was not surprised when I noticed not one, not two, but three nurse faculty positions listed for faculty at her campus on a popular higher education website.

When Judie and I finally reconnected, almost seven months after our initial interview, the situation had not changed. However, her remaining students had all done well in their studies. Judie admitted the temptation to quit was always in the background of her thoughts. “But I’m not a quitter; I hate to quit. I want these students to be successful. How do I measure success? Well, the bottom line is my students pass their boards and are working.” Judie retired from teaching only after her students passed NCLEX and transitioned into an RN-BSN program.

Jessie: The Best Laid Plans

Jessie was the foundations of nursing course coordinator for a large ADN school. The program admitted 160 new students per semester. Essentially the nurse manager for both didactic and clinical courses, Jessie was ultimately responsible for the outcomes of 320 students, *plus* the returning students (those who were unsuccessful in their first attempt at the course).

Jessie’s previous adjunct position at another institution had exposed her to testing and evaluation concepts. However, at that time she was not responsible for writing exam items. “It was the full-time faculty, and they were using the test bank,” she said. In her current role, the

creation of each unit exam was a collaborative effort among five full-time foundations of nursing faculty. Nevertheless, Jessie was responsible for the final product. Since she alluded to a passing knowledge of test construction principles, I started the interview by asking for her impression of a well-written exam. Jessie replied:

So, a well-written exam starts with the unit objectives, which then becomes the blueprint. The blueprint is based on the content that's most important and what weighs the heaviest percentagewise on NCLEX and in clinical practice. The questions then flow from the blueprint. They are without bias and without regional verbiage, which everybody sucks at because we all have some pieces of that (bias). The questions have to be worded so that they can't be read multiple ways. Then, in the end, it has a KR-20 of about 0.70, and point bi-serials look good, 0.35 or 0.45; that would be good.

The Second Exam, Not the First

Creation

In her capacity as the coordinator, Jessie was in a position to effect needed change in the course, specifically in the realm of testing and evaluation. The intent was that each team member would be the lead for one of four exams with Jessie supervising the overall process. Jessie had planned for Sue, a tenured instructor, to prepare the second exam. "In all fairness, Sue was on leave for the first part of the semester."

Sue returned to work, one week before exam two. With less than a week before the first section of students was to test, Jessie reworked exam two herself. "I'm not going dump a massive project on somebody on such short notice." She created several new items and removed outdated verbiage from old, but usable, items. She edited items with unused distractors. Finally, she examined the congruence between the test blueprint and the unit objectives.

Administration

Unfortunately, the test blueprint and the objectives were significantly *incongruent*. Jessie explained, "I spent many, many, hours making sure exam two lined up with the blueprint,

making sure it lined up with the objectives, making sure the questions were as effective as possible in the wording. I was really pretty confident.”

Nevertheless, significant issues arose when Jessie, like Judie, experienced two technological glitches related to the setup of the exam. “I didn’t click the box; I didn’t know I had to click a box. Nor did I know there was a checklist that would’ve told me to click the damn box.” The result was that items were not sequentially numbered. Students had no idea whether they were on item 35 or 55 and were at risk of running out of time. “Speaking of time,” Jessie continued, “when I put the test in, I set a 90-minute limit. I have no idea what happened, but it ended up being 180 minutes.” Given the potential impact on student outcomes, the irregularities presented ample evidence for grade appeals.

The Fallout

Jessie’s students were the first section of students tested. They were not particularly upset by the irregularities. Only one of Jessie’s students mentioned the fact that items were not numbered. “It was a little bit difficult to pace myself,” the student said. Jessie continued, saying:

I didn’t discuss it until later because I thought it was an issue with just that one student. Nobody said anything except her. As the week went on, people seemed to get more and more panicky. By the time we got to Thursday, people were panicked and pissed.

The impact on grades was potentially significant, especially for “repeaters,” students who were previously unsuccessful in the course. In fact, a student who had already failed the course ran over the officially allotted 90 minutes, at which point the instructor closed the exam. The student failed the exam because of the timer issue and was at risk of failing the course for a second time. A second failure would result in dismissal from the nursing program. “Well, there’s no way to rationalize it; it was an unfair situation.” Jessie began to receive emails from students and faculty regarding the exam irregularities. “I received an email from a student to another

faculty member that the faculty member then forwarded to me.” Jessie then forwarded that email to the administration with a warning of the troubles encountered during the exam and a request to have a conversation about those issues.

The situation was complicated. Whereas the exam statistics fell within acceptable parameters, the irregularities were potentially responsible for 32 (16.9%) student failures of exam two (Table 8). Jessie exchanged several emails and phone calls and followed up with face-to-face conversations with the instructor whose student ran out of time. The discussions revolved around the mistaken belief that NCLEX questions are not numbered. “There’s no number, there’s no timing on the NCLEX,” the faculty member was quoted as saying. NCLEX items are, in fact, numbered, and students are aware of the time that has elapsed (NCSBN, 2019a). “Okay, but I still think it’s going to be an issue,” Jessie commented to her faculty.

Table 8

Spring 2019 Exam II

Item Analysis							
Students	KR-20	SD	Mean	Median	Min	Max	Total Points
189	0.59	16.32	181.36	184	124	220	220

The Solution

Program administrators directed Jessie to offer a retake to all 189 students and insisted that the exam be administered in old school paper-pencil format. “I was told to do it on paper because we wouldn’t have to reserve time in the testing center, because scantrons would give us the required statistical data, and because this format would ensure that we didn’t run into computer issues.” All students, even those who declined the retake offer, were required to sign a waiver acknowledging the fact that the retake would (a) be administered in paper-pencil format, (b) allowed backtracking, and (c) *be the grade of record* regardless of the outcome. Jessie reflected on the change in exam procedures stating,

Part of it was that we could make sure that there wasn't an issue with the computers or the testing center. But the second was to give the students additional benefits. Really, it's a benefit to them for it (an exam) to be on paper because then they can backtrack.

Approximately 15% of students elected to retake the exam. Jessie believed that some students weighed the risk of lowering their original grade, however improbable in their mind, versus the benefit of improving an already passing grade and decided to capitalize on the opportunity presented to them. Other students preferred the paper exam modality over computerized exams and would have preferred that all exams be paper-pencil exams. In fact, Jessie had several students who expressed concern regarding their improved performance specifically due to the ability to skip and then return to previous questions.

Of students who retook the exam (Appendix M), thirteen who failed the first exam also failed the retake. Ten students initially failed then passed the retake. Five students passed originally and proceeded to improve their grades with the retake. Two students who passed the initial exam made a lower grade but still passed the retake. Unfortunately, two students who passed the original exam failed the retake. "It hurt my heart to put those failing grades in the grade book for them."

The Next Exam

Historically, exam three was the exam that would doom a low performing student to failure. This exam contained the most challenging content of the semester: perfusion, fluid and electrolytes, acid-base, and oxygenation. "I'm never confident for the students and test three," said Jessie.

Jessie provided background information regarding past versions of exam three so that I could understand more recent events in context. In the fall of 2018, Jessie reviewed exam three before it was administered to students. Several items on the exam were incongruent with unit

objectives. “Using the course objectives to guide test construction is one of my soapboxes.” She showed one such item to me (Figure 12). “Deciding what is appropriate for a patient with a broken nose? That’s not a nursing decision,” Jessie said, “That’s not nursing judgment.”

As a side note (Figure 13), jejunostomy tube placement was not covered in lectures, nor was it included in the unit objectives. The topic was parenteral nutrition. I agreed with Jessie that the item could have been better worded (Figure 13). “So, I deleted questions, including this one, and replaced them in the fall. *In. The. Fall.*” Jessie emphasized, “Deleted questions. Replaced them.”

Figure 12

Exam 3 Actual Item

The patient is admitted with facial trauma, including a broken nose, and has a history of esophageal reflux and aspiration pneumonia. Given this information, which of the following tubes is appropriate for this patient?

- a) Jejunostomy tube*
- b) Nasogastric tube
- c) Nasointestinal tube
- d) Percutaneous endoscopic gastrostomy tube (PEG)

*Correct answer

Figure 13

Exam 3 Alternative Item

An elderly client was admitted with severe facial trauma after a fall. Past medical history includes dysphagia secondary to a cerebral vascular accident (CVA) and aspiration pneumonia. The nurse anticipates an order for which intervention?

- a) A jejunostomy tube.
- b) A nasogastric (NG) feeding tube.
- c) A peripherally inserted central catheter (PICC). *
- d) An orogastric (OG) feeding tube.

*Correct answer

Our conversation moved to the events of the spring 2019 semester. Jessie emailed exam three to team members for content review, at which point the faculty lead for that exam was to take over. The faculty lead would gather feedback and perform any needed edits. Unfortunately, the faculty lead copied *a prior exam* but not *the prior exam* and posted the exam for administration. Jessie had been confident about the exam she *thought* was to be posted. “I knew it would be hard,” she said. “I don’t mind hard,” I responded. Jessie rephrased, “I knew students

would struggle because, historically, they always struggle with exam three. I didn't expect it to be a bloodbath. I did not. I expected it to be hard.”

Jessie's section tested first. She noticed that high achieving students were scoring significantly lower than one would expect. She began trending the missed questions. “It was awful,” she said, “I saw questions on the exam that I had replaced. I saw questions I had never seen before. That's when I knew. I knew as soon as I pulled the missed questions that this was fixing to be a rough week.” Spring 2019 Exam III statistics (Table 9) fell within acceptable parameters, this *after nullifying six* items and accepting multiple answers on two other items. Nevertheless, 82 students (43.4%) failed the exam.

Table 9

Comparison of Exam 3 by Semester

Item Analysis								
Semester	Students	KR-20	SD	Mean	Median	Min	Max	Total Pts
Fall 2018	152	0.70	21.58	162.95	164	84	212	220
Spring 2019	182	0.61	18.04	166.88	168	116	208	220

What I Wish I Knew When

Like Judie, Jessie's story was less about exam construction and more about consequences of poorly constructed and poorly administered exams, a dysfunctional team, and a lack of communication. I asked her to reflect on events over the past year. “How long do you have?” she joked, but only slightly so. “I wish that I had known each of the team members' strengths and weaknesses. Each person has their forte and skill and passion.”

Jessie noted faculty who were as passionate and as well-versed as she regarding testing and evaluation. Another faculty member felt strongly about having well-edited material to present to students. “I know if I want it to look pretty, then give it to her,” Jessie said, “She usually counters with, ‘Not pretty. Professional. We're raising professional nurses. Therefore,

our presentation to the students must be professional.” I agreed with her faculty. I recalled a graduate statistics exam with 17 typographical errors. When syllabi have omissions or ambiguous directions, when exams have spelling and grammatical errors, when simulation charts are not even close to clinical reality, our credibility as educators is questioned.

Jessie obviously possessed more than a novice understanding of testing and evaluation concepts. I asked her to place herself on Benner’s novice to expert continuum. “I’m not a novice and not an expert as an educator.” Without prompting, Jessie defined her expertise according to roles. “There are aspects of education where I would define myself as proficient, but if I try to analyze them, I think those areas play to my mental health background.” Jessie admitted that she relied on rules and guidelines in some areas. In other areas, she had no problem “going rogue” to effect change in the course. “Stepping side-ways into the coordinator role in only my second year of full-time teaching, especially in light of the testing issues, I feel very novice.”

Our Collective Story: The Colleague and the Consultant

Jessie and I kept in touch throughout the summer and fall. Of 189 students in the Spring 2019 cohort, 40 students failed the course (Table 10). Nine students were dismissed from the program. In consultation with faculty Jessie and I made significant course revisions. We reworked the lecture schedule to evenly distribute the most challenging content (Appendix M). We revised and rewrote exam items to correlate with the new lecture schedule. We aligned theory content with clinical content to reinforce concepts. We added active learning content and weekly content-based quizzes as “tickets to class” for both lecture and clinical. We added exam review quizzes covering the most missed content to enhance knowledge retention. Finally, we added mandatory individualized remediation for any student failing an exam.

I reworked the lecture and clinical syllabi and created a master schedule. The schedule included all assignments on one page so that anyone could see assignments and due dates during any given week. Finally, I created a mock course shell (affectionately known as a “sandbox”) on the LMS, dividing the content into bite-sized pieces to help students (and faculty) with time management. Jessie was then able to copy the sandbox to live courses, thereby maintaining consistency between sections.

It was interesting, but not unexpected, to hear from Jessie that upperclassmen were telling scary stories to the then-current (Fall 2019) students. “Exam three is a killer!” Of course, upperclassmen had no idea that the course had been extensively restructured. Jessie reassured the cohort that exam three was no longer to be feared, that the course changes were thoughtfully prepared and consistently implemented for their benefit.

In the Fall 2019 cohort, 27 students failed (Table 10). Four students were dismissed from the program. The faculty kept the changes and added collaborative testing related to pharmacology content. Jessie resigned from the coordinator position in December 2019.

Table 10

A Tale of Two Cohorts

Semester	Total Students	Failed	Dismissed
Spring 2019	189	40 (21.2%)	9 (4.8%)
Fall 2019	180	27 (15.0%)	4 (2.2%)

Megan: No Experience Needed

I met Megan on her campus. It was a college at which I had interviewed for a teaching position. I declined their offer because it would have meant long drives on two-lane rural roads. Megan, who participated in the interview remotely, remembered me. I, however, did not remember Megan. Megan had not completed the screening survey before our meeting. So, we

started from the beginning. We spent the first hour discussing life in general. She needed a total knee replacement; I recommended my favorite orthopedist. We both live in rural counties but relatively close to large metropolitan cities. The discussion turned to rural healthcare issues, and horses, and snakes.

Our study related discussion started with the final topic. Megan was curious about a number of things: the dissertation process in general, the difference between quantitative versus qualitative research, how I chose my research topic, and the difference between research questions and interview questions. I showed her both versions of my questions. “I love to learn,” she said. She was most interested in questions related to Benner, specifically the question regarding her self-identified placement on Benner’s continuum. I stated that, ideally, those questions should have waited until the end of the interview. “It works for me. It’s called learning to walk. Beginner? Advanced Beginner, I think.”

Megan introduced her students to NCLEX style questions early in foundations for nursing practice semester via the use of a popular NCLEX review book. Before Megan’s arrival at the institution the NCLEX review book and the associated test-taking skills were introduced in the second year of the program. “I wanted them to have it from the very beginning,” she said, “The second year is too late.” I agreed and told her that this action established an evidence-based practice change in how she and students prepared for exams in general.

Megan tutored her students for one hour each week. She presented Maslow’s hierarchy of needs and taught students how to use assessment data when considering answers. “You could read their faces and tell that they’re not taking this seriously.” In my experience, students do not take our admonitions regarding exams seriously until after the first exam imposes a reality check upon their souls.

The First Exam

Creation . . . and Administration

Megan described a process by which exams were “built” from existing content rather than written. Like Abbie and Judie, she chose exam items from a publisher supplied test bank. Megan was able to select from among thousands of questions for her exam by setting various filters in the software such as acute or chronic disease, body function, or nursing process, to name a few. I asked, “You can do this without ever knowing how to construct a question or an exam?” Megan replied,

Yes. I view the whole question first. Is this (topic) something that I know we actually talked about in class? Was it in the assigned reading? Was it part of an assignment? Was it in their study guide? I also look at the NCSBN (NCLEX) test plan. I’ve spent one whole day, eight hours or so, doing maybe 30 some odd questions.

Not only did Megan create the exams in the publisher software but she also used the publisher’s embedded test platform to administer exams. I had long been aware of publisher test banks. However, I had never heard of using a publisher’s supplemental online platform to both create *and* administer non-high stakes exams. Megan incorporated Publisher B with the first-year cohort while the second-year cohort finished with Publisher A. “We tested through Publisher A, and now we also test through Publisher B.” I was somewhat confused as to why testing exclusively via the publisher’s platform was such a priority.

The Exam Review

Megan described students’ demeanor after the first exam as one of total defeat, saying, “The exam blew them out of the water. Doomsday! And God forbid the select-all-that-apply (SATA) questions!” Students questioned the content on the exam. I knew from previous comments that Megan had her validated content. I shared my first exam review experience with Megan from what I thought was students’ perspectives: their concern with incorrect or unfair

content, and the potential for incivility during the review. “We told them ... showed them ... warned them,” she said, “They didn’t think we were serious. Then they had the nerve to argue.”

The primary point of contention was the 16 SATA items on an 80-item exam. “Megan!” I exclaimed, “That many SATA items would blow ME out of the water, *especially* on my first nursing exam! No wonder they felt defeated!” I suggested that she and her teammate limit the inclusion of SATA items or alternate format items (on a foundations of nursing practice level exam) to no more than 5% of the total number of exam items⁶ and gradually increase the percentage as difficulty increases. “It wasn’t our decision, the coordinator put 16 SATA questions on their first exam.” The coordinator nullified the 16 SATA items. Megan then invited her dean to join the interview to discuss item analysis in the absence of statistical measures such as the KR-20. Like Judie’s program, Megan’s class had so few students that the KR-20 statistic would have been worthless had it been calculated.

The Next Few Exams

Megan described her preparations for the next exam. She and her teammate wrote the next exam themselves and put those questions into the test bank. Megan felt that she had not prepared her lectures well which, in turn, affected the quality of exam items. The exam ended up with a few items that met item analysis standards, and others that had to be nullified. “Okay, that means I need to step up my game, and I need to start really challenging them.” On exam four, Megan validated all content to be tested. She matched items to the objectives, the textbook, and to the NCSBN test plan.

I inquired as to what level of Bloom’s taxonomy she was attempting to attain. “I don’t know. Knowledge? I’m not great at Blooms yet,” Megan said. I caught her off guard, she said; I

⁶ Informal guidelines suggest alternate format items (SATA is just one of several types) comprise no more than 10% of the items on an exam which means that no more than 8 alternate formats items should be on an 80-item exam.

made her feel dumb, she said. Megan was joking, of course. In the short amount of time we had been talking, we were already acting like old friends. “Let me see your cell phone...”

What I Wish I Knew When

Megan and I had such a lively and entertaining day that I left some questions for another discussion. Several days later, I emailed Megan and asked her to reflect upon what she knew now versus what she wished she had known when starting the year. Megan felt that she was struggling with a steep learning curve while she attempted to implement a flipped-classroom approach to instruction. Megan also struggled with work/life balance. She remarked that she spent many hours beyond her officially allotted office hours to prepare for lecture and clinical. Finally, Megan was surprised and dismayed at the lack of effort put forth by some students. “I learned that keeping an anecdotal record is vital,” she said. I agreed, but I had no words of wisdom to offer.

Our Collective Story: The Learner and the Teacher Colleague

Megan and I, coincidentally, took students to the same clinical site. My first semester students went to the site on Mondays and my colleague, Amy, had second-semester students at the site on Tuesday. Megan’s second-semester students went on Wednesday and Friday. We decided to use the setting to our advantage. The plan was to have my Monday students prepare the shift report in SBAR format for Amy’s Tuesday students. Amy’s Tuesday students would prepare the report for Megan’s Wednesday group, and so on. In doing so students could meet multiple clinical objectives, such as the implementation of beginning written communication.

To maintain compliance with privacy requirements, students were to furnish report to their instructors. SBARs were to be left at the facility in a locker accessible only to instructors and were to be picked up by the next instructor before pre-conference. Finally, Megan and I

planned to meet via Zoom over the weekend to discuss assignments for the next week. Unfortunately, we were never able to follow through with the plan.

Araceli: Teamwork Makes the Dream Work

At my request, Araceli and I met midway between our two locations. Unlike the other storytellers Araceli had a mentor, Jean, who was genuinely interested in her professional development as a nurse educator and who guided her practice during her first year of teaching. Jean had seven years of experience as an educator. Jean's orientation to academia was, according to Araceli, nonexistent. For that reason, Jean was determined to give Araceli a better experience.

We discussed item writing and exam creation over appetizers and dinner, my treat. Araceli and Jean created original exam items without using a publisher test bank. I asked Araceli to describe a well-written item and a well-written exam. The most novice among storytellers in terms of both clinical and teaching experience, Araceli had a better understanding of item writing and exam construction than many experienced nurse educators. She elaborated saying:

The exams must be sensitive, they must be specific; they must measure the desired content, and they must measure it correctly. Each question must be assigned according to Bloom's taxonomy. Each question must have a rationale. A good question will have distracters but not tricks. Twenty-five percent of our questions are alternate style questions. Our SATA questions have 6 choices. I cannot make it just a case between (answer) a and b. It's like fishing. Someone must bite at each choice.

I was sufficiently impressed and said such. Araceli credited Jean with excellent instruction, and I agreed.

The First Exam

As one would expect, Araceli and Jean created exams together. As previously noted, they created each exam question without use of a published test bank. "Jean let go little by little. I wrote six questions on two chapters for the first exam."

The Exam Review

We turned our discussion to exam reviews. Again, I shared my experience regarding my first ever exam review (see Abbie's story). I told Araceli, "In my experience, students do not understand the time and effort faculty spend on item writing or item analysis. They get upset, uptight, and irritated." Araceli agreed stating, "Because they're right and you're wrong."

Araceli recognized that the exam review process tended to make one a target for criticism. According to Araceli, Jean had made it clear at the beginning of the semester that there would be no arguing about exam items. "She set that expectation from the very beginning. We are all professionals. We are all to be respected." I agreed. Setting behavioral expectations, whether in clinical or the classroom, at the beginning of the faculty-student relationship does prevent most serious confrontations in the long run.

The Next Exam

Eventually, Araceli was able to teach enough content to write a full exam. She wrote 50 items and Jean wrote the other 25 items. Again, she credited Jean's mentorship. "That exam was exciting for me. It wasn't scary or overwhelming because I knew that Jean wasn't going to allow me to fail. When we did the test analysis, it was something I was proud of."

I was somewhat surprised at the number of items Araceli and Jean included on each exam. Araceli was equally surprised that I put only 55 items on each exam, five of which were pilot questions and did not count in the calculation of grades. "What is the evidence-based practice for the number of questions?" she asked, "Can you measure enough with only 50 questions? Are we doing a disservice to the students by giving only 50 questions?" Those were good questions. I countered that a 75-item exam written to test knowledge and comprehension was significantly different than a 50-item exam written to test application.

I suggested we look at an item analysis and discuss statistics. Araceli was unable to provide an exam for artifact. So, we looked at a de-identified exam from several years past that I had written. It appeared that Jean and Araceli only looked at what percentage of students chose which distractor. She described their process, saying, “We look at this: 60% of the students chose ‘B,’ which is good, that’s a majority. At least two students chose ‘C,’ which is good. I would look at ‘D’ because this percentage is high, why did the students choose that answer?” What followed was an extensive discussion regarding components of the item analysis. Araceli had been exposed to item analysis concepts at both our state ADN conference and the national ADN conference.

I don’t think we look at that (the statistics) too deeply. I don’t ever see Jean look at this (difficulty level) or this (point biserial). I think we should. I’ve gone to conferences, and they’ve talked about ‘if your high scoring students chose the wrong answer, then that means that your wording of the distractor could be misleading, or it could be incorrect.

What I Wish I Knew When

I asked Araceli to reflect upon the last year and tell me what she currently knew versus what she wished she had known at the beginning. “I feel like I stumbled upon education because it wasn’t in my plan. I don’t have a master’s in education. It’s all been new to me.” I told her that I, too, had stumbled into nursing education and, in doing so, had found my calling.

Unlike previous storytellers, Araceli had not established expertise in multiple clinically oriented nursing roles. Like me, she was a bedside expert nurse clinician before transitioning into the educator role. Given her novice status, she admitted to feeling uncomfortable approaching Jean to point out ways to improve their practice. “It’s hard when you’re the mentee to teach the mentor something new. I understand item analysis, but I haven’t mastered it. I’m definitely not comfortable enough to look at it, analyze it and tell Jean we’re doing it wrong.” I described my mentor as my best friend and my personal educational consultant. I recalled a time when I sent

my work to her for editing. The only comment I received was, “The student has become the master.” Araceli’s relationship with Jean had not yet attained that level of familiarity.

Our Collective Story: A Well-Mentored Novice Educator and a Novice Researcher

Unfortunately, our story did not extend beyond our interview. Araceli was the youngest storyteller and one of only two not approaching retirement age. She taught for one year (2018 - 2019) then moved into professional practice as a family nurse practitioner which was her original goal all along.

Melissa: This Isn’t What I Signed Up For

Melissa and I postponed our interview several times due to various issues: life (she forgot about our interview), work (she worked PRN [as needed] on the night shift at a local rural hospital), and localized flooding. We decided to meet via a popular online platform. Interviewing via video conference was less desirable because the ability to assess non-verbal behaviors was lost. However, this option decreased our logistical concerns. The advantage was that we could conduct the interview from the comfort of our recliners. Even so, the meeting was almost derailed once again by weather-related rural internet connectivity issues.

Melissa was the newest faculty for Megan’s program, albeit at a different campus. She first spoke about her transition to academia. An intensive care unit nurse of 27 years, Melissa had no doubt of her expertise at the bedside. “I knew everything at the bedside, but I didn’t have a clue about teaching.” She was learning how to transform what I remember as being a colorful vocabulary to more professionally appropriate language. “I’m a brand spanking new educator. I’m still learning what you should and shouldn’t say. There’s not a handbook that tells you ‘You really shouldn’t say this or that in front of students.’ It’s a challenge.” I had to laugh because as a labor and delivery nurse very few topics are off-limits in my lectures. After all we talk about sex

and the consequences thereof. “Students appreciate the spontaneity and seeing the genuine you,” I said, “but you do have to model professional behavior.”

Melissa considered the establishment of professional boundaries as one of her priority problems. Colleagues chastised Melissa for being too nice and too friendly to students. “I don’t socialize with the students, I don’t meet them after clinical to have drinks, I don’t friend them on Facebook or get into their social lives.” She maintained a practice of calling her students by their surname. “Because I think that helps me keep that professional boundary. But I’m a nice instructor, I want to be kind to them and support them.” My observation, which I shared with Melissa, was that students and faculty all too often mistake patience, kindness, and gentleness for weakness. I encouraged Melissa to always nurture students despite criticism.

We continued our discussion regarding Melissa’s transition to academia. I asked her to place herself on Benner’s novice to expert timeline. “I had to look up why I knew what I knew. I had to start reading. I did more preparation for my classes than my students.” Melissa was describing the hallmark of an expert nurse clinician, the intuitive knowledge one possesses that enables one to act rather than think about a needed action. “I see myself as a graduate nurse. I felt like I didn’t know anything. It’s so intimidating.”

My first thought was of Abbie’s description of un-structuring and re-structuring: “We are un-structuring you as a human being and re-structuring you as a registered nurse, and that’s a role assault.” Melissa continued, saying:

I was very respected at (my institution), the one everybody came to for everything. So, your ego is built up to here (she swiped her hand above her head) then you move into the nurse educator world, and you’re the rookie, and you come to the harsh realization that you’re not as great as you thought you were. That’s really hard emotionally for those of us that have been in it (the nursing profession) forever. It’s a professional shock. It’s been a huge, psychologically damaging blow to my ego.

I had planned to discuss the concept of role assault from the educator's perspective. Such would have been a valuable conversation, but I resisted the temptation at the time.

The First Exam

Creation . . . and Administration

I asked Melissa to describe her experiences when creating and administering exams. Keep in mind, I already knew the process by which her institution tested. Melissa explained, saying:

We have one book. We start in the beginning of that book. The next level advances to more in-depth topics. By the third, semester we're doing advanced med-surge. But it's all out of the same book. We just go back and get a bit more involved each semester.

Megan had commented during our interview that they were transitioning from testing with Publisher A and were moving to Publisher B. I did not understand the significance of their choices at the time. Megan's comments now made sense. Melissa's explanation provided a clearer picture; one book by one publisher equaled one testing solution for the entire program.

Both campuses administered identical exams on the same schedule. "We thought our test banks were compromised. So, me and my partner rebuilt all of our tests. I reviewed questions in the test banks and pulled out specific questions based on the level (of the students)."

Melissa also attempted to write questions of her own. "I had written up some renal questions and turned them in to my partner." Later, Melissa and her colleagues attended the state ADN convention (the same one Araceli attended) which included an item-writing workshop. "I realized what an idiot I must have looked like in the beginning here," she stated.

The Exam Review

Students at both campuses performed poorly on the first exam, perhaps due to the 16 SATA questions, and students on both campuses complained. Students advanced their argument

as high as the college president complaining that they did not have access to the material. “It was horrible. They (the students) threw a fit, a huge fit.” It was Melissa’s opinion that students were using the publisher’s test bank as a study guide.

It is a well-known fact that test banks are readily accessible on Quizlet, eBay, and many other student-friendly cheat worthy sites. “What the students were complaining about was they didn’t have access to the answers,” said Melissa. I recalled a student who once aggressively demanded to know where my exam questions came from. I said to him gently, a concept one of my mentors beat into me, “One, you are not positioned to demand anything of me. Two, the questions come from my 15 years of nursing experience and my two degrees in education.”

What I Wish I Knew When

I asked Melissa to reflect upon her experiences over the previous 18 months. “It’s been a good learning experience. I never realized that so much went into test questions. I didn’t even know test banks existed.” Melissa then revisited the idea of psychological preparation for novice nurse educators. “I feel like you have these delusions of grandeur about how great it’s going to be. I wish I’d had a ‘heads up,’ that would’ve prepared me for the change in culture.”

I still wanted to explore the concept of role assault without using the specific term, so I rephrased my question. Instead I asked whether or not the transition into academia was as difficult as the transition from nursing student to new graduate nurse. She replied, “It’s different because when you’re a new grad going into nursing, you don’t know anything, but you’re excited about knowing nothing ... You’re anxious to be there.”

Our Collective Story: The Novice and The Professional Acquaintance

Melissa and I quickly discovered that we were professionally acquainted with each other. We did not recognize or remember our connection until we discussed her PRN position. Years

ago, when I was faculty at a different ADN program, I paired students with Melissa in her intensive care unit. We had not seen each other in several years, so I was unaware that she had taken a position in academia. Like Araceli, our story did not extend beyond the interview. We have not maintained contact even though she is but 60 miles away. However, I do see her dean at professional events and ask about her well-being.

The Rest of the Story: The Making of a Professional Nurse Educator

The assumption in nursing education, as in many professions, is that if one *can do* then one *can teach* that content knowledge and that clinical expertise will automatically transfer to the academic setting. However, the stories told by Abbie, Araceli, Judie, Jessie, Megan, and Melissa made it abundantly clear that content knowledge and clinical expertise were insufficient and did not automatically confer the ability to teach or test effectively.

In each case, storytellers left established roles in which they were confident of their clinical expertise. In each case, stories included descriptions of expert nurse clinicians who discovered, often to their shock and dismay, some unexpected challenges associated with the role of the nurse educator. Three major themes and eight subthemes emerged from the analysis of these extensive interviews (Table 11). Those major themes were: (a) expectations versus reality, (b) un-structuring and restructuring, and (c) the influence of program culture.

Table 11

Major Themes and Subthemes

Major Themes	Subthemes
Expectations vs. Reality	<ul style="list-style-type: none"> • Professional Expectations • Personal Expectations • Student Expectations
Un-structuring and Restructuring	<ul style="list-style-type: none"> • The Un-structuring of an Expert Nurse Clinician • The Restructuring of a Novice Nurse Educator
The Influence of Program Culture	<ul style="list-style-type: none"> • Constraints • Contemplation • Creativity

Finally, most storytellers, content experts all, were missing at least one component of pedagogical knowledge. An unanticipated finding of this study was the dearth of technological pedagogical content knowledge (TPCK). TPCK is the extension of pedagogical content knowledge or PCK (Shulman, 1987) to the phenomenon of integrating technology into one's pedagogical practice (Koehler et al., 2014).

Theme One: Expectations versus Reality

Expert nurse clinicians frequently enter academia with the expectation that their professional experience will be sufficient for teaching (Bristol & Brett, 2015; Bristol et al., 2018; Cooley & De Gagne, 2016; Pate & Caldwell, 2014; Poindexter, 2013). They also may believe that respect is conferred by virtue of the professorial appointment and that the advanced degree leaves them with nothing to prove to anyone.

Professional Expectations

Melissa was initially excited about entering academia. She assumed that her advanced degree and experience automatically conferred respect, and perhaps it did from a lay person's point of view. Melissa quickly realized that her expectations were at odds with her reality. She shared, "When you graduate from the master's level, going into nursing education, you're excited about a new career ... I'm going to be well respected ... then you get out there, and you're really not (respected). You're just the beginner." Melissa admitted to being unprepared for the reality of academic culture and described her expectations as "delusions of grandeur". This made her feel the need to prove herself to her peers.

Likewise, Judie had moments where she fought to integrate her professional expectations with her academic reality. For example, she had difficulty reconciling the practice of remote, online testing with her expectation of how an instructor should conduct an exam. Judie's students

had previously tested from home. “They’re being tested with proctors. Proctors! There’re no proctors. When our students take a test, we are with them ... there’s no need for it!”

While in private practice, Judie kept current on best practices and standards of care for primary care providers. Such is a professional expectation and seemed a point of personal pride to Judie. She stated, “You have to know what you need to know, and then you have to know what you don’t know, and then you have to be smart and go find it.” The technical term for the cognitive thinking process Judie described is ‘metacognition’ (Flavell, 1979). She elaborated further, “I’m always looking at stuff like that ... five websites ... Medicaid and Medicare standards of care or the AHRQ (Agency for Healthcare Research and Quality).”

The NCLEX exam is proctored, not remotely, of course, but proctored, nonetheless. Judie, operating in survival mode, did not have the luxury of time. Consequently, she was unable to employ the same diligent search process to evaluate best practice related testing and evaluation.

Personal Expectations

Abbie was methodical in her approach to management and she expected to transition seamlessly into the academic routine. Instead, she found herself behind the teaching and learning curve racing “like a little race car” to catch up and then keep up with the more educationally seasoned faculty. She spent time going “back to nursing school” herself to refresh old knowledge stating, “I’m scrambling for traction and reviewing YouTube videos about acid-base balance. Fortunately, I’m pretty self-directed. Even so, it took me three weeks to get organized.”

Conversely, Judie proudly and pointedly declared herself to be “old school.” She initially expected to teach the same way she was taught some 40 years prior but quickly realized that “it’s no longer just lectures and handouts.” At the same time, she erroneously assumed that there were

no curricular alternatives, stating, “So, there’s not another resource for old school. It’s all concept based now?” She noted, more than once, that her colleagues perceived her as “not knowing what the heck I was doing.”

Megan struggled with the fact that work requirements permeated her home life in excess. She did not expect to spend many hours of personal and family time preparing lecture and clinical content. “I go to sleep with students on my brain,” she stated, “If I would’ve known how much time I’d invest in work, I probably would have reconsidered entering this profession.”

Judie also spent many hours of personal time troubleshooting problems and often worked past midnight. She noted, “I’m staying up till three or four in the morning doing all this crap,” and she questioned whether or not her struggles on behalf of her students were worth the price she was paying in anxiety and depression.

Expectations for Relationship with Students

Once admitted to nursing programs, faculty expect students to commit a significant amount of time to gaining knowledge and refining skills. Faculty expect to act as mentors to students and assist in the development of professional attitudes such as civility, work ethic, integrity, i.e., as well as soft skills, and that they will do this while also developing critical thinking, problem-solving, and clinical judgment skills.

Abbie and Araceli had the most uncompromising yet positive perspective regarding student expectations. Mentorship was important to Abbie as both a nurse manager and nurse educator. Her teaching philosophy revolved around carefully crafted professional relationships. She expected student behavior to rise to the level of *her* expectations, stating, “I will listen to them. I will be fair with them. I will not argue with them.” She elaborated, saying, “I’m actually

pleased that I hear of student complaints because if I didn't, it would mean that I might not have a relationship where they would feel comfortable telling me things."

Likewise, Araceli held her students to a high standard of behavior primarily due to her mentor's influence. She also emphasized relationships based on respect between faculty and students, saying, "Respect has a lot to do with the student-faculty relationship ... Jean made it clear that we are not there to argue. We are all professionals. We are all to be respected." Araceli elaborated further regarding their response to student complaints saying, "We will be open-minded. Your concerns will be heard, and they will be addressed. You will be respectful."

Megan and Judie were frequently surprised at the behaviors exhibited by students. Judie described student-to-faculty and student-to-student incidents of incivility. Of the student-to-faculty incident, she explained that after mistakenly including previously tested content on a subsequent exam, the students "stood up in the middle of the test and had a temper tantrum ... If they knew it for that exam, why couldn't they answer the question on this exam ... These are adults! I don't get it." Of the student-to-student incivility, rather than deal with the issue directly Judie responded passively, as would a kindergarten teacher, by rearranging tables and assigning seats.

Megan also witnessed incidents of student-to-student incivility (bullying), albeit with a better outcome. She described a group of students, two who acted as ringleaders with others who followed in their wake. This group intimidated other students into silence during lectures. All but one of the bullies eventually left the program. The remaining students (the ones who were bullied) were gracious and forgiving. They warmly embraced the lone survivor and former bully. Megan recognized the professional value of her students' actions stating, "She (the former bully)

has been humbled beyond belief. She will carry that humbleness into practice, and when some of the seasoned nurses try to bully new grads, she will be the one that says it isn't right."

Theme Two: Un-structuring and Restructuring

Nurse educators are cognizant of ethical and moral responsibilities placed upon us to educate the next generation of nurses. We take our charges seriously, and we tend to take failure and criticism personally. These stories gave credence to the uncomfortable, often painful, process of un-structuring and restructuring reality as each storyteller knew it. Abbie and Araceli spoke of being supported and mentored by helpful, knowledgeable faculty, whereas Judie and Jessie described the opposite, relating stories of incivility and dysfunctional behavior at best and, at worst, stories of fearful and toxic work environments.

The Un-structuring of the Expert Nurse Clinician

All storytellers self-identified as expert nurse clinicians except Abbie and Araceli. It was Abbie who introduced the concept regarding expertise according to the nursing role, an idea which was echoed by all storytellers. It was also Abbie who described the transformation process from a generic student to a professional RN as an uncomfortable process, the un-structuring of a human being and the methodical step-by-step restructuring into a novice nurse clinician. Judie and Melissa echoed the un-structuring concept, albeit from the expert nurse clinician to novice nurse educator perspective.

Judie further clarified what it meant to be an experientially qualified expert nurse clinician stating, "I don't know that I'm qualified as an educator, but I'm qualified as a nurse." Megan expanded on the idea of being experientially qualified by noting that, as a clinician, she had set a professional goal to work in every critical care area because she wanted "to experience it all." Melissa drew upon her extensive experience, recalling that she was "the highest

knowledge nurse, the one everybody comes to for everything.” Araceli drew a distinct line between the disciplines of nursing and education, stating, “I’m a clinician, but I’m not an educator.” To her, being an expert meant retaining clinician status by obtaining her first position as a nurse practitioner.

Unrealistic Expectations. Unrealistic expectations were a significant element in the unstructuring process. Storytellers’ realization that their treasured knowledge and battle-tested experience did not automatically enable them to teach effectively was demoralizing to varying degrees. Judie, an APRN, and Melissa, an expert intensive care nurse, recalled feelings of isolation, intimidation, and psychological harm.

Isolation. Judie was especially isolated due to the rural nature of her campus and the fact that she was the sole faculty for a program that had been significantly damaged by previous faculty. The realization that her expertise, her “been there, done that, made it up, figured it out” attitude, was insufficient for the task. This created extreme anxiety and caused her to constantly question her ability to perform her duties. Judie described several times when she was silenced, which subjected her to mental and emotional isolation as well. “I was told to quit asking questions ... If I were a new nurse, I would just walk off,” she said more than once.

Intimidation. Melissa, teaching from a small extension campus, did not experience the physical and emotional isolation to Judie’s extent but still had concerns. She sought reassurance from her dean, who said, “Melissa, you’re new at this, but you’re not a new nurse. So, stay focused on that.” Melissa continued, saying, “I think that advice helped me more than anything.”

Araceli may have placed herself firmly in the clinician camp by her own choice, but she was far less intimidated than most novice nurse educators due to Jean’s all-encompassing mentorship. Recalling her feelings during exam review she stated, “Having the students question

you is intimidating ... it makes you vulnerable ... Especially if you're like me who's coming in with zero education background ... I learned quickly that you cannot take criticism personally."

Psychological Harm. Judie labored to find the intestinal fortitude to overcome a pervasive sense of inadequacy. She spoke of how several novice-mediated faux pas had induced significant mental stress. Her emotions ran the grief gamut from anger to depression to resolve. She began with, "I'm mad as hell, and then I'm really mad." After time had passed, she would sink into a depression: "I've had times where I've been very depressed . . . very anxious." Next was apathy: "There were a couple of days like, 'You know what? Screw it.'" Inevitably she would always arrive at feelings of resolve: "I'm not a quitter. I hate to quit." In the end, Judie's resolve enabled her to resist the temptation to abandon her students. Her vast past experiences provided just barely enough strength to help her endure the struggles she faced. She worked with the cohort until they graduated and then retired from the teaching profession.

Melissa saw herself on the same emotional and psychological level as a graduate nurse. She described going from the expert to the novice as a professional shock. She stated, "It's been psychologically damaging to my ego ... you're the rookie ... that's really hard emotionally for those of us that have been in it (the nursing profession) forever. I felt like there was a huge blow to my ego."

The Restructuring of a Novice Nurse Educator

The novice educator's experience was, for better or worse, closely related to the structure and culture of the program in which they taught. Having been a senior hospital administrator for most of her nursing career, Abbie was aware of the need for fundamental changes in the education of clinical bedside nurses. She pulled *Educating Nurses* (Benner et al., 2010) from a pile of books, *shook it at me for emphasis*, and stated, "This would be the best written book in the last ten years. I think she's (Benner) dead on about changing the (nursing education) culture."

Abbie embraced current paradigm changes in the nursing education environment stating, “So much has changed. The whole world of what we’re teaching ... The way we deliver teaching, the methodologies have changed.” On the other hand, Judie, with her many years as an advanced practice nurse, seemed to have the most difficulty of all storytellers with the transition to academia. She acknowledged the changing face of nursing education but resisted the shifting paradigms stating, “So much has changed. It’s all changed. I’m old school.” Judie’s clinical instruction tended to be “old school” and even included complete hair, nail, and uniform inspections at the start of the clinical shift.

Mentoring Faculty: Intentional. Mentoring contributed to a positive transition into the professional role as demonstrated by Araceli and Jean. Jean, Araceli’s mentor, brought her protege into the profession slowly and deliberately with intentional mentoring. Araceli described herself as Jean’s shadow in the beginning of their relationship. She noted that Jean was not the type of mentor who would throw a mentee “into the deep end of the pool.” Jean, acting as lifeguard, allowed Araceli to slowly learn to swim in the shallows before taking on the depths. Araceli likened herself to a new nurse stating, “You don’t just take them out there on their own, and that’s it. There was an orientation. There’s a reason why we do this.”

Jessie, while not formally mentored in her previous adjunct position, nevertheless felt included in all aspects of the department. She explained, “I was at every faculty meeting for the whole meeting, every BSN meeting, I sat on committees, I sat on sub committees.” She also observed exam reviews and, in doing so, soaked up the wisdom of her peers.

Mentorship was important to Abbie as well in both the nurse and the educator role. She wished for a slightly more formal mentorship process similar to how she mentored her former nurse administrator colleagues. She described her orientation as “spend a day with the dean”

which consisted of too much information over too short a period of time and which left her “running like a little race car to keep up.”

Mentoring Faculty: After the Fact. After the fact mentoring, a term inspired by Abbie, is defined as bringing a mistake to one’s attention *after the fact*, usually publicly. Abbie, Judie, and Melissa all experienced after the fact mentoring. For example, Abbie was somewhat insulted when the test commander chastised her for including incorrectly written items on an exam. Abbie was informed that the item writing guidelines at her institution were such that items had to be entirely right or entirely wrong. She explained, “I’ve been verbally corrected since I’ve started ... usually *after the fact*.” She further rationalized, “I always thought one wrong and one right component in an answer made it wrong. Right? The test commander said, ‘Change this, change that,’ ... no explanation, no rationale, and we changed it and moved on.”

Judie felt demeaned when instructed to perform a task without having corresponding instruction regarding how to accomplish the task. Similar to Abbie’s experience the lack of direction usually resulted in Judie performing the task and then being told to correct her mistake *after the fact*. However, whereas Abbie received feedback from her colleagues on how to fix the problem, Judie was usually just told to “fix it” without being given information about what was wrong in the first place. Likewise, Melissa felt “like an idiot” when the dean corrected her, saying, “We don’t write test questions like this anymore.” This only *after* the items were included on an exam.

Megan and Melissa both expressed thoughts of leaving academia, not because of any one negative experience per se but due to the lack of direction. Megan described feeling completely unprepared when she tried to adapt to various learning styles that individual students utilized for

their own comprehension. She stated, “I’ve had to learn the hard way (*after the fact*) and unfortunately, I’m still finding it a struggle to keep methods fresh for students to learn.”

Mentoring Students: Intentional. Abbie’s teaching philosophy was closely related to her management philosophy and included intentional mentorship. “I’m constantly praying for ways to inspire my students,” she said, “I want them to have an epiphany. *I want that*. I want to appeal to their heart.” She described how she wanted students to experience a significant emotional event. She elaborated on the concept stating:

You have to get them to S-E-E. When they S-E-E, sometimes it’s a near miss in clinical or a heart experience where they connect with a patient, then they have a memorable experience. They never forget that event. That’s when learning takes off and gets fun.

Judie’s mentorship style had more of a we’re-all-in-this-together approach. She told her students, “You guys stick with me. We’ll do whatever we’ve got to do to get you where you’re going.”

Mentoring Students: After the Act. Exam reviews, and all occasions in which feedback is provided, provide faculty an opportunity to model professional behavior. If one does not recognize these behaviors as a teachable moment, the moment may be lost forever. However, it is never an easy task.

Judy, Megan, and Melissa spoke about student attitudes, most often related to testing, that they found worrisome. Judie was perturbed upon seeing how upset students were after the paper-pencil exam and felt they were questioning her ability as an educator. “You (students) don’t get to choose the testing modality,” she stated.

Megan and Melissa expressed their shock at the vehemence of student complaints after the exam that included 16 SATA questions. Melissa was frustrated with students stating, “It was horrible ... it was a mess.” She felt that students were *really* complaining because tests had been

rebuilt thus rendering any previous illicitly obtained answers obsolete. Megan was dismayed at the lack of effort on the part of some students. She noted that she spent more time preparing for lecture than they did for testing. Megan placed the blame on students, stating, “Whether we speak it out of our mouths or not, it’s still testable material. It is their responsibility. That’s the problem. Responsibility. Accountability.”

On the other hand, both Abbie and Araceli showed their resolve to listen to, but not argue with, students. Abbie was more than willing to stand her ground when defending her practice as a nurse educator novice or otherwise. “Why are we arguing with a neophyte?” she asked, and continued, “I want to be warm and have a welcoming relationship ... but at the end of the day they have to decide if they want to be a nurse or not.” Araceli felt vulnerable due to her inexperience and took her lead from her mentor. She felt the weight of responsibility for student success stating, “It’s a vulnerable time when you’re writing a test because a lot of responsibility is on you for that exam.”

Theme Three: The Influence of Program Culture

As stated previously, the novice nurse educator’s experience is ultimately related to the culture of the program. Each storyteller had an academic culture to which they had to adjust. Abbie was in a supportive and collegial environment. However, the concept-based curriculum as well as the exam process was fixed, almost rigid. Judie was a lone wolf of sorts. While she had the flexibility to quickly make alterations (within reason) to the curriculum, the success or failure of her program was resting solely on her shoulders. Jessie experienced an entrenched attitude on the part of faculty which was coupled with an intense student-success focus on the part of administration. Araceli had, without a doubt, the best experience of all with an experienced colleague who both shielded and pushed her at the same time.

Exam creation is also mediated by programmatic culture. Storytellers described processes by which exams were created. Abbie, Araceli, and Jessie described processes that included deliberate intention. Megan and Melissa learned to be deliberate only after observing missteps made by other faculty.

Constraints

Clinicians, especially APRNs, are accustomed to some degree of autonomy. Nurses perform their duties within a well-defined scope of practice and so too do nurse educators. Storytellers were accountable to someone, if not a direct supervisor then colleagues or mentors. Even Judie, as alone and isolated as she was, was compelled to follow the NCLEX test plan, and accepted test writing guidelines and other parameters as agreed upon by program policy. These constraints, both unstructured, offered restructured handholds for each storyteller on how to proceed, as did learning about Bloom's Taxonomy, test blueprints, and item analysis.

Contemplation

Abbie reflected on her own deliberate practice of preparing the final exam in conjunction with the administration of the unit exam. Nurses begin patient discharge planning at admission. Abbie transferred this concept to her personal exam strategy stating, "If I taught my concept, then I ought to have a reflex (a reflexive action) and put X number of questions on the final exam." In essence, planning for the final exam begins with creation of the first exam.

Araceli, the youngest storyteller, and newest educator had a remarkable grasp of item writing methods courtesy of her mentor, Jean. She equated item construction to fishing and used the concept of luring students with distractors. She elaborated, "A good question will have distractors but not tricks. ... It's like fishing. Someone must bite at each choice."

Megan had no opportunity to proactively address issues with the first exam. Without consulting faculty Megan's coordinator put 16 SATA items on the first unit exam. She elaborated, stating, "I felt bad for the students after the first exam." Megan created the second exam herself with marginally better results. She explained,

The second exam items were so easy, too easy, and that made me feel bad too ... I learned my lesson on exam two. I was not going to make that same mistake again. It took hours. I made sure I double checked everything, and I read. I made up some good questions, and I challenged them."

Judie was in survival mode, just barely hanging on, while in the midst of an ongoing program rebuild. She stated, "I know we're supposed to write our own questions, but I have to survive." She also declined to use a test blueprint, citing the need to survive the chaos.

Creativity

Abbie described perhaps the most interesting exam construction process of all storytellers. Her description brought to my mind a well-conceived battle plan with a structured hierarchy and a rigid process in place. If one considers the tried and true exam creation methodology described by Jessie and Araceli (Appendix A), then the concept is not so drastically different.

- The Scouting Report: "There is a blueprint but it's very broad."
- The Battle Plan: "The test bank questions themselves are sorted into even year and odd year ... I can review and pick and choose as long as they haven't been used in the last two-year cycle. Then I put them on the exam."
- The Arsenal: "We print a draft and put it in a red folder ... It's kept securely in the faculty's possession, but we circulate it for review ... The folder also has the student exam review sheet and other goodies in it."
- The Marching Orders: "The co-commander and I will send an email out to everybody who just taught the content. I'll say, "Okay team, I need eight questions from gas exchange, I need eight questions from coping, and I need six questions from elimination."

- The Contingency Plan: “Then, I post an exam draft in ExamSoft, and they (faculty) put their questions on it. I get to 50 or 55. Then I tell everybody give me some extra questions.”
- BATTLESTATIONS! ALL HAND’S ON DECK! “We give the exam all in one day, all in the same timeframe. We all proctor the exam to make sure no one is cheating ... Some students finish in 20 minutes and others take the whole 75 minutes.”
- INCOMING! BATTEN DOWN THE HATCHES! “All of the questions are tied back to Power Point presentations (lecture content) which was posted for students to see. So, they can’t cry (complain) that they never knew that was going to be on the exam.”
- The Aftermath - Is There Anyone Alive Out There? “When they are done, they all come back in and we give them the next review code so they can see what they missed. Then we have a survey ... ‘How many questions did you miss? Did you sleep the night before? Did you eat breakfast? How many hours have you worked this week? They turn in their scratch paper and they leave the testing center.’”
- The After-Action Review - Who Won the Battle, Who Lost the War: “Then we immediately come up to the faculty workroom ... We discuss who passed the exam, who failed and why, and make adjustments as a team.”

Well done, Abbie, well done. Set course for the NCLEX, full speed ahead.

Pedagogical Content Knowledge: The Missing Pieces

As a classically trained vocalist, I spent the better part of a decade studying vocal pedagogy. My professors endured hours of private voice lessons (Thank you Lupita Martinez and Dr. Janette Kavanaugh). I logged massive amounts of time in practice rooms, and I had a respectable repertoire, some of which are still embedded in my memory. I can still sing in front of hundreds of people with minimum advance notice and a little practice. I remember, though, the abject terror of piano pedagogy competency exams. As a pianist, I can play from memory *parts* of exactly three songs. Playing the piano, I hesitate to call it performing, in front of anyone is intimidating and is my idea of a nightmare because I am sadly lacking major pieces of piano pedagogy.

Storyteller were “experientially qualified” in their respective nursing specialties, that is, they all possessed the *content* knowledge deemed necessary to be nurse educators. Storytellers self-assigned their clinical expertise as expert, except for Araceli and her academic expertise was anywhere from novice to proficient. However, storytellers, except for Jessie, were missing at least one component of pedagogical knowledge, most often the “how to teach” (Table 12). The lack of pedagogical knowledge caused storytellers to feel vulnerable and exposed as not being expert nurse educators regardless of whether they were expert clinicians or not.

Table 12

Missing Pieces of Pedagogical Knowledge

	Abbie	Judie	Jessie	Megan	Araceli	Melissa
Self-identified Stage (Benner)	AB*	Competent	Proficient	AB*	Novice	AB*
Content	✓	✓	✓	✓	✓	✓
Curricular (What)	✓	✗	✓	✓	✓	✓
Pedagogic (How)	✗	✗	✓	✗	✗	✗
Student (Who)	✓	✗	✓	✗	✓	✗
* AB Advanced Beginner	✓ Storyteller possessed the necessary components			✗ Storyteller lacked the necessary components		

Pedagogic (How)

Educators’ pedagogic knowledge (how to teach) is the yin to their content knowledge (what to teach) yang. Abbie self-identified her learning needs stating, “I need to be able to synthesize ... we’ve taught the facts; now how can I bring together the clinical experiences.” Using the race car analogy again, she described herself as being in the middle of the pack when it came to writing exam items according to Bloom’s taxonomy, which she was also learning while in the race. Judie described herself as driven, also a racing term, to figure out Bloom’s taxonomy. At the same time, she minimized the importance of a crucial component of exam construction, the exam blueprint, stating, “I don’t use that, but I know the concept.” Megan exhibited a more nonchalant attitude stating, “I’m not great at Bloom’s yet.”

Araceli felt vulnerable when students questioned her about exam items stating, “It’s a vulnerable time because it’s your work. It takes a lot of effort and I don’t think that the students understand test writing or analysis.” Melissa echoed Araceli and added, “Nothing in my master’s program prepared me for developing test questions.” In addition, Araceli, unaware of available offerings by reputable sources, expressed both a desire and a suggestion for practice improvement. She elaborated,

I wish I could have taken a structured course on test analysis. There should be something for new faculty. You guys (expert nurse educators) should be evidence based structured. Because it’s very hard to break old habits and relearn ... when I learn things, I learn the ‘why’ ... What is the science behind this test analysis? Because it is a science.

Student (Who)

Like nurses who individualize patient care, the best and most effective educators use the knowledge of their students, for example, previous life experience, to individualize their instruction. Megan expressed disappointment in learning that students tried to capitalize on mistakes (characterizing them as loopholes) made by instructors. She stated, “Students are amazing at manipulating the system. They spend hours trying to find the loopholes.”

Araceli had a more pragmatic view of student behavior. She characterized instructor mistakes as moments of weakness stating, “All the students want to do is pass, but at what cost?” and continued, “We’re there to make you a clinician ... You need to act like a nurse now ... You cannot be just a nurse when you’re in scrubs ... you’re a nurse in training and that should be your core.”

The Lack of Technological Pedagogical Content Knowledge: An Unexpected Finding

Educators use TPCK to integrate technology into their pedagogical practice (Koehler et al., 2014). TPCK focuses on an educator’s *actions* in the classroom (Mupita et al., 2018) to deliver instruction face-to-face or in an online learning environment. As with clinical expertise, a

rudimentary knowledge of technology, for example, the ability to navigate electronic mail or attend videoconferencing sessions, does not confer the ability to apply that knowledge to an educational setting (So & Kim, 2009).

Storytellers spoke of technological challenges they encountered. “So much has changed,” said both Abbie and Judie. Abbie embraced new technology needing direction only with the actual working of the technology. Her concern was the lack of structured orientation to the technology in use. Judie, declaring herself “old school,” struggled with technology in addition to new teaching and learning paradigms.

Judie’s unfamiliarity with technology made her question her ability to function in a technologically driven teaching environment. Remote testing via Respondus Lockdown (a form of virtual proctoring) was especially distasteful even though current educational pedagogy supports the practice. Judie declared, “It’s the worst thing I’ve ever seen, unorganized, unprofessional, the stupidest thing I ever saw, and there’s no need for it!” However, her “old school” technological solution fared no better. Her attempt at testing via Blackboard failed, which caused her to resort to truly “old school” pencil and paper testing.

Jessie was comfortable with the use of technology, but still experienced significant technological issues associated with exam administration. Her understanding of exam construction was pedagogically sound; it was the exam software that confounded her not once but twice that spring semester (and a third time in the following fall semester).

Summary

Personal storytelling can be risky, leaving one vulnerable to criticism and ridicule (Tyler, 2009). In this chapter, I shared the stories of six expert nurse clinicians during their initial transition to academia. I intended to research storytellers’ testing experiences only. It quickly

became apparent that each storyteller had much more to say. Throughout discussions, storytellers unflinchingly recounted the good, the bad, and the ugly aspects of their experiences and elaborated on what they had learned along their journeys.

Abbie, Judie, Jessie, Megan, Araceli, and Melissa provided extensive accounts of their novice nurse educator experiences. I, in keeping with Smith and Liehr's (2014) story theory, (a) gathered their stories in extended interviews, (b) reconstructed individual stories, (c) described the story plot in detail, (d) identified challenges (most often related to testing issues, but not always), (e) identified problems and suggested (in some cases assisted with) a resolution, and (f) gathered additional stories one by one.

From my perspective, this research quite unexpectedly became much more than a mere storyteller and listener scenario. Using the IA approach to interviews, I was able to interject my own experiences into these stories. I was, at times, able to offer help beyond which might be considered ordinary for doctoral research. I remained in contact with several of storytellers, serving as mentor, course consultant, teaching/learning strategy analyst, and even impromptu donations coordinator when the opportunity arose. Storytellers taught me as well by introducing new concepts that I had not initially considered which added depth to my research findings. The give and take relational aspect demonstrated the heart and soul of IA methodology implemented in a research setting.

CHAPTER V

FROM NOVICE TO EXPERT TO NOVICE AGAIN

*He who knows not and knows not he knows not, he is a fool — shun him;
He who knows not and knows he knows not, he is simple — teach him;
He who knows and knows not he knows, he is asleep — wake him;
He who knows and knows he knows, he is wise — follow him!*
Lady Isabel Arundell Burton ~ The Life of Captain Sir Richard F. Burton

A smooth transition from expert nurse clinician to novice nurse educator is vital to the success of novice nurse educators. Many novices find the move from the comfort zone of clinical expertise to relatively unfamiliar academic settings is a source of discouragement and disappointment, infused with occasional delusions of grandeur. So great is the shock and disorientation that many novices quickly exit academia and return to the familiar confines and higher pay of clinical practice. In doing so, these former nurse educators unwittingly exacerbate the current nursing shortage by depriving nursing academia of a scarce commodity; that is, their presence and their clinical expertise (Ignatavicius & Chung, 2016).

This descriptive qualitative study explored the experiences of novice nurse educators, teaching in ADN programs in Texas, as they learned to prepare, administer, and analyze unit exams. This population of novices was chosen because of the large number (68) of ADN programs in Texas and because ADN programs are more inclined to hire a novice nurse educator. Moreover, there is a gap in the literature concerning novices and their experiences with exam preparation. The goal of this study was to answer the following research questions:

1. How does the novice nurse educator describe the experience of constructing and administering exams in the first year of academic practice?

2. How or what would the novice nurse educator change regarding the preparation and administration process?

The narrative design allowed storytellers opportunities to offer in-depth descriptions of their experiences. The use of IA (Riessman, 2008), a subset of the narrative approach, offered a non-traditional hybrid interview technique with added dimensions of collaboration between storytellers and me. The interviews were dynamic, flexible, holistic, and *long* (Holloway & Galvin, 2016; Prion & Adamson, 2014).

The framework used for this study was Shulman's pedagogical content knowledge (1986) in combination with Benner's novice to expert (1984). The premise was that expert nurse clinicians must once again navigate the novice to expert continuum, albeit a markedly abbreviated but sometimes painful journey, upon entry to academic practice. Like novice nurses who leave clinical practice, negative experiences make it more likely novice nurse educators will also leave this role.

This chapter highlights study findings and the alignment of those findings to the literature. The chapter continues with the implications of the study. Also included in this chapter is the evaluation of a mind map created to organize and illustrate various components of pedagogical knowledge as applied in this study. The *lack* of TPCK on the part of storytellers, a most unexpected finding, is discussed as it relates to current technological trials brought about by the coronavirus pandemic. The chapter concludes with a discussion of the limitations of this study and recommendations for future research.

Interpretation of the Stories

Analysis of these stories revealed three main themes: (a) expectations vs. reality, (b) unstructuring and restructuring, and (c) the influence of program culture. Professional expectations,

personal expectations, and student expectations appeared as sub-themes under expectations vs. reality. The un-structuring of an expert nurse clinician and the restructuring of a novice nurse educator emerged from the un-structuring and restructuring theme. Finally, constraints, contemplation, and creativity arose from the influence of the program culture theme. This chapter offers an examination of how data answered research questions. The discussion of research question one revolves around two overarching themes that arose from the previously discussed themes and subthemes. The two themes pertain to (a) failure and (b) perseverance. The discussion of research question two examines recommendations put forth by storytellers.

Research Question 1

How does the novice nurse educator describe the experience of constructing and administering exams in the first years of academic practice?

Seriously? I Didn't Expect To Fail

As noted previously, for nursing academia to rely upon on-the-job-sink-or-swim experiences is not fair to nursing students or novice nurse educators (Oermann, 2017). Nevertheless, program administrators expect novices to enter academia equipped with the knowledge base and skills needed to perform their duties, needing only minimal assistance. Novices bring their own expectations to the teaching endeavor as well because they expect their clinical knowledge and experience to have equipped them with all that is necessary to teach fledgling nursing students.

These noble expectations are unrealistic from the program perspective and the novice perspective. The expectations are comparable to throwing a person into rough seas and expecting them to swim ashore. The practice may work for strong swimmers. Others will tread water while

awaiting rescue. Yet others will be devoured by novice-eating sea monsters. Still others will slip under the water, unobserved and in silence.

I submit that the first year, or more, as a novice nurse educator is an act of treading water; not actively drowning, not in imminent danger, but not making significant headway towards shore either. The dichotomy between the preconceived expectations of novices and realities of various academic cultures leave novices to wonder whether or not they need to be rescued from their current situation and, if needed, whether or not help will arrive in a timely manner and by whom.

Just Keep Swimming. Novice nurse educators experience multiple challenges as they transition into academia. One of the many challenges is understanding the expectations of the professional educator role. Melissa was chastised by a colleague for being too casual with students. The perception by the colleague, according to Melissa, was that she had not established professional boundaries between herself and students. Melissa made the establishment of professional boundaries a priority saying she did not engage students socially outside of class or on social media, and that she maintained a practice of calling students by their surname. Melissa maintained that what the colleague saw as a lack of professional boundaries was, in fact, her commitment to provide a supportive and nurturing atmosphere for students.

Keep Swimming. Another challenge encountered by novice nurse educators is a lack of confidence in their teaching ability. Melissa noted that she felt like a new graduate nurse. However, a novice nurse is excited even while knowing that there is a great deal left to learn about the nursing profession, whereas Melissa was intimidated precisely because there was, unexpectedly, a great deal left to learn about nursing academia. “You have a master’s degree and you just don’t know anything,” she stated. Abbie acknowledged her ability to manage multiple

multi-million-dollar health care facilities but questioned her ability to teach after being substituted into the race during the middle of the academic year. Perhaps the most seemingly insecure of all storytellers was Judie. Judie made several comments during our interview, for example, “If I were smart, I would just walk off” or “I must be stupid because I didn’t know.” I evaluated Judie’s comments as her attempt to cope with the constant stress of her teaching environment.

Swim! The expectation of a supportive and collegial environment was often, unfortunately, an unmet expectation. The loss of the familiar in-the-trenches camaraderie exhibited by clinical team members and the lack of support from experienced faculty created a sense of isolation and neglect. Megan and Melissa struggled with work/life balance and noted that they spent many hours of personal time preparing for lecture and clinical. Jessie and Judie were especially surprised at the degree of incivility displayed by students and even by some colleagues.

To have one’s work, for example a less than stellar lecture or a severely flawed exam, critiqued by more experienced colleagues and criticized by students was an intimidating and uncomfortable process. Araceli noted that the questioning left her feeling vulnerable and exposed. Such was especially true if the students fared poorly on an exam due to errors in construction or administration. Errors such as the ones made by storytellers damaged the credibility of the novice nurse educator and made the novice a target for incivility in the form of bullying, scorn, and ridicule by colleagues and students alike.

The unforced errors also exposed the novice to legal issues should students chose to escalate their concerns along the administrative chain of command. Faculty may have felt a sense of betrayal if program or institution administrators consistently sided with students when

arbitrating grades or other issues. The unfortunate reality is that many novice nurse educators leave academia because of a toxic work culture including lack of administrative support, faculty-faculty incivility, and student-faculty incivility.

Seriously! Failure Is Not An Option!

The role transition experience into nursing academia can be the worst of times professionally, and also the best. At worst, the realization that graduate study failed to prepare one to teach was a psychological shock leading to significant mental stress and emotional exhaustion. At best, the novice nurse educator had an epiphany, a significant emotional event as Abbie called it, perhaps an extraordinary cohort of clinical students, that made the struggle worth the effort.

Storytellers in this study took various actions to correct their perceived and actual deficiencies. Often the action consisted of faculty development seminars on exam construction item writing. Araceli and Melissa participated in faculty development sessions offered at state and national ADN nurse educator conventions. Jessie's institution invited a NurseTim consultant to hold a one-day faculty development workshop on exam construction and item writing. Abbie took professional development courses from the NCSBN courtesy of her program dean. She later reported that she completed two courses and had gained a solid foundation for item writing and revision. When we last spoke, Abbie was trending statistical data of questions she had created to track revisions and improve items.

Other storytellers sought out mentors (Judie) and unofficial course consultants (Jessie) to help with course adjustments. In Jessie's case, the mentor and consultant were one and the same, i.e., me. As previously noted, the quick establishment of relationships between colleagues is a fundamental precept of the IA methodology implemented in this research setting. The

relationships established during the interviews enabled me to go beyond and participate in ways that I had not originally envisioned.

As one would hope, storytellers learned more than just how to construct and administer an exam. Storytellers learned that content knowledge, that is, their clinical passion or expertise, was not enough to be successful nurse educators. They learned how to manage relationships with faculty and students, some of whom were warm and welcoming, others of whom were passive-aggressive or even openly uncivil. Pedagogically, the storytellers learned to fine tune various technological tools and they learned the minutia of those tools when technology-related misadventures arose. They learned about Bloom's taxonomy, about teaching strategies other than lecture, and assessment strategies other than testing. Finally, they were learning how to transform the knowledge into bite sized chunks of understandable content for students, which is the essence of pedagogical content knowledge.

Research Question 2

How or what would the novice nurse educator change regarding the preparation and administration process?

Where's a Life Raft When You Need One?

Most, if not all, novice nurse educators come to academia as clinically savvy nurse clinicians. Not yet educationally savvy, novice educators may struggle to make the transition to academia. These novices typically teach the way they were taught simply because the student experience was the only educational frame of reference to which they were exposed. At the same time, the current student population brings together multiple generations, with different needs and abilities, into the same lecture and clinical setting. Add to this scenario unexpected trials encountered by the novice and a perfect storm arises precisely when calm seas are most needed.

The Mentorship Life Raft. The transition of novice nurse educators is somewhat similar to the transition of novice nurses (Bristol et al., 2018; Chicca, 2019). A formal mentoring program, led by expert nurse educators, could provide the tranquil waters needed to facilitate the transition from the clinical role into the academic role. However, most storytellers in this study had no mentor. Melissa, for whom the transition to academia was a psychologically damaging event, wished for a storm warning, stating, “I wish I’d had a ‘heads up,’ that would’ve prepared me for the change in culture.” Abbie, who also had no formal mentor, maintained that her new faculty orientation dinghy contained too much information with no consistent organization and left her too little time to successfully get ashore. “Fortunately, I’m self-directed,” Abbie stated, “Still, it took me three weeks to get organized.”

Regarding mentorship, both formal and informal, I found that the two youngest storytellers, Jessie and Araceli, were the most well versed on exam construction. As noted, Araceli had a formal mentor experience with Jean who was determined that given time her mentee surpass her own abilities. Jessie, while having no formal mentorship per se, was included in all department functions even as an adjunct faculty member. She reported a de facto mentorship in which the only limitation was that she was not allowed to create exam items while in the adjunct role.

The Pedagogical Life Raft. Like the nursing profession itself, there are several pathways one may take to enter nursing academia and only a few include content specific to educational pedagogy. Fewer still include content specific to item writing and exam construction. The result is that most nursing faculty have little understanding of pedagogy in general (Benner, 2015). This is not unique to nursing as most academic positions are based on scholarship rather than the ability to teach (B. Thompson, personal communication, August 31, 2020).

Peaks and Troughs: Identifying the Gaps

At one point during our interview, Judie stated, “You have to know what you don’t know, and then you have to go find it.” All storytellers were able to identify a lack of pedagogical knowledge, most often related to the “how” of teaching. I submit that the gaps identified by storytellers were related more to a dearth of knowledge, a gap in their non-educator specific training regarding available solutions rather than a gap in the education of nurse educators (as a specific course of study). For example, Araceli expressed regret regarding her lack of pedagogical preparation, stating, “I wish I could have taken a structured course on test analysis” and “There should be something for new faculty.”

Pedagogical content is widely and readily available at both the master’s and doctoral level. Additionally, both the NLN and the NCSBN offer professional development courses specific to exam construction and item analysis. Finally, numerous commercial offerings are available, for example, the New Faculty Orientation workshop offered by NurseTim, Inc.

Of the six storytellers in this study only two, Abbie and Araceli, recounted a positive experience regarding their transition into academia. Araceli worked with a dedicated mentor and was never in imminent danger. The remaining storytellers were subjected to the “sink or swim” mentality so prevalent in nursing academia. Abbie was able to reach the shore with little problem. Megan and Melissa were still treading water when last we spoke but were making headway. Jessie, for whom rescue never arrived, was devoured by novice-eating sea monsters, and left her institution in the middle of an academic year. Judie was silenced early and often during her tenure and retired from teaching after graduating one small cohort of students.

Discussion

Storytellers in my study lacked numerous components of pedagogical preparation leading to significant frustration and, at times, failure. Data gathered in this study supports the literature which emphasizes the fact that masters prepared nurse educators are inadequately prepared pedagogically to educate undergraduate nursing students (Poindexter, 2013; Schoening, 2013). New faculty are content experts (Ball et al., 2008) but not yet experts nurse educators (Gardner, 2014).

Generally recognized as content experts there is a divide between novice nurse educators' content knowledge and pedagogical knowledge. Like novice nurses, novice nurse educators experienced a reality shock when transitioning from practice to academia due to gaps in their educational preparation which, in turn, influenced their intention to remain in nursing education (Duchscher, 2008; Mann, & DeGagne, 2017). Melissa spoke of the transition into academia as being a psychologically damaging professional shock. In nursing practice, this phenomenon is known as the theory-practice gap (Benner, 2010). The *clinical practice-pedagogical proficiency gap* such as that experienced by storytellers is almost as frustrating and problematic for novice nurse educators as the theory-practice gap experienced by novice nurses.

Megan and Melissa both considered a return to clinical practice citing unanticipated work-load demands leading to an inequitable work/life balance and felt they worked harder in academia and for less pay than in the clinical setting. McDermid et al. (2013) and Mann and DeGagne (2017) support this finding. In a study of 14 participants, stories were told of feeling ill-prepared to deal with those professional expectations involved when assuming a full-time academic nurse educator role (McDermid et al., 2013). Citing a lack of formal pedagogical preparation, participants reported sagging confidence levels and struggled to meet unanticipated

workload demands; thus, they contemplated a return to clinical practice (Mann & DeGagne, 2017, McDermid et al., 2013).

Chicca (2019) noted that the needs of experienced nurses who transition to new clinical settings were often overlooked. The assumption was that the transition of experienced nurses would be relatively effortless in comparison to that of a new graduate nurse. Chicca's analysis revealed that transitions of nurses to new settings, for example from the labor and delivery unit to the neonatal intensive care unit, were equally if not more challenging than those of new graduate nurses. The transition from clinical practice to academic practice progresses similarly in the case of novice nurse educators as evidenced by Judie's difficulty reconciling her clinical expertise with her lack of pedagogical expertise.

Paul (2015) noted that novice nurse educators verbalized needs for additional support, formal mentoring, and enhanced communication to assist with positive transitional changes. Novice nurse educators frequently verbalized needs for role supplementation (mentorship) and improved communication to assist the novice nurse educator in the academic role. Owens (2017) noted that orientation or mentoring activities should be individualized based on the educator's experience and learning needs.

In a follow-up article to the original 2013 research, McDermid et al. (2016) noted that the 14 novice nurse educator participants frequently sought mentors, both formally and informally, to clarify issues and gain support. Those researchers also noted that sometimes stress and anxiety experienced by novices were best resolved by leaving nurse education altogether. Jessie, in fact, did return to the clinical setting as a professional development educator and Judie retired, rather than take on another cohort of students.

Pedagogical Content Knowledge: An Intersection of Disciplines

“He who can, does. He who cannot, teaches.” So said American playwright George Bernard Shaw (1903), and in so doing, unwittingly introduced into the American consciousness a pithy cliché that has persisted for well over 100 years. Nursing faculty must be experientially qualified, that is one must be a nurse and have nursing experience in order to teach nursing, and rightfully so. However, only one state, North Carolina, *requires* that faculty be pedagogically qualified to teach nursing.

The lack of pedagogical knowledge leaves novices with no other option but to teach the way they were taught. The use of less effective teaching strategies such as exclusive lecture accompanied by a multitude of static slides invites students to engage in surface learning only. Surface learning affects students’ ability to achieve course objectives and program outcomes. This lack of pedagogical knowledge may (a) bring attention to and exacerbate novices’ lack of confidence in teaching ability, or (b) humble over-confident novices in very public and demoralizing ways.

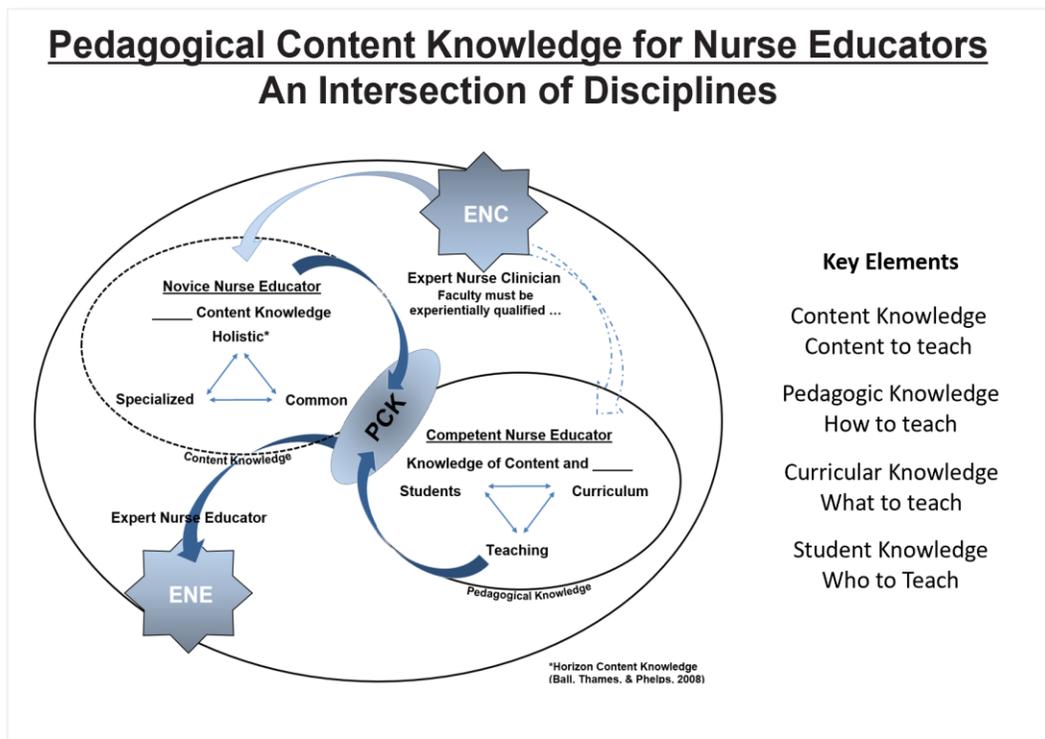
Unless novice nurse educators hold a graduate degree in nursing education, they may not have been exposed to teaching and learning strategies such as scaffolding, retrieval practice, flipped classrooms, or interweaving of multiple concepts and skills. These teaching and learning strategies encourage deep learning of concepts and moves students beyond mere memorization of content for the next exam or competency validation.

The concept of pedagogical content knowledge has been studied extensively in such disciplines as math, science, technology, language arts, and music. Various acronyms (CK, PK, MKT, TPACK, TPACK, CPACK) were cumbersome to track and organize, hence the creation of a mind map (Figure 14). The mind map presents the progression from expert nurse clinicians to

expert nurse educators. Novice nurse educators typically have the requisite content knowledge required of all nurses. Storytellers in this study possessed those necessary components of content knowledge. However, depending on past experience, for example a previous degree in education, and the type of advanced nursing degree novice nurse educators may or may not possess pedagogical knowledge. The combination of content knowledge and pedagogical knowledge results in development of pedagogical content knowledge all of which produce a proficient, if not expert, nurse educator.

Figure 14

Pedagogical Content Knowledge for Nurse Educators: An Intersection of Disciplines



Crider (2020). Adapted from Ball et al., (2008) and the Georgia Department of Education (n.d.).

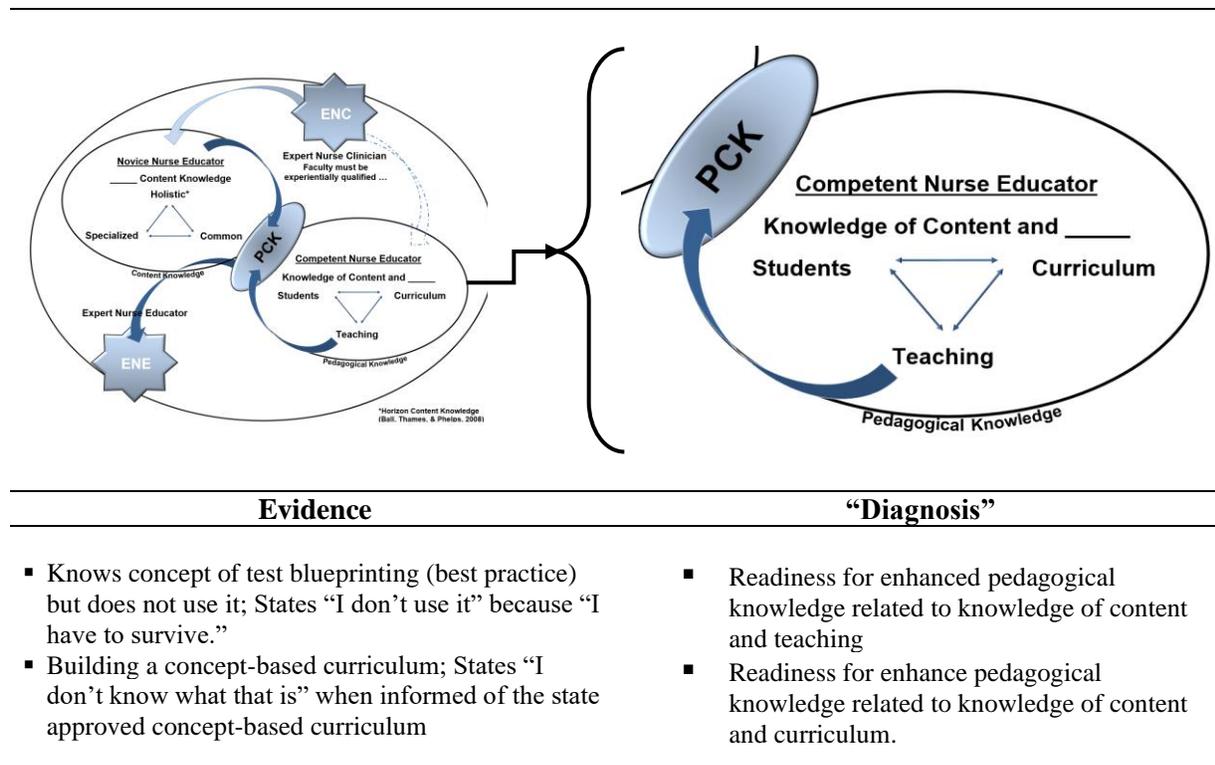
The use of PCK is not just imparting instructor knowledge of didactic content, knowledge of specialized clinical content, or knowledge of nursing students; it is all those entities articulated together (B. Atkinson, personal communication, April 17, 2018). Nor is PCK simply knowledge

acquisition. Knowledge is being acquired to be sure, but it is also being manipulated and transformed before being put into practice (B. Atkinson, personal communication, June 26, 2018). Even so, novice nurse educators are expected to develop their PCK without benefit of formal pedagogical training. I submit that, at a minimum, without a foundation of knowledge of content and teaching novice nurse educators will not be able to teach effectively, and learners will not be able to grasp or understand topics (Rollnick & Mavhunga, 2017).

Judie was especially challenged when attempting to reconcile her extensive professional practice experience, i.e., her content knowledge, with her pedagogical knowledge. A common refrain throughout our interview was “I didn’t know.” or “I have to survive (Figure 15). This included Bloom’s taxonomy, computers, adult learning theory, and item writing to name a few.

Figure 15

A Nursing Diagnosis of Sorts



Crider (2020).

Take for example, the creation and utilization of exam blueprints. An exam blueprint addresses at a minimum (a) topic(s) to be tested, (b) how many items will be tested on each topic, and (c) how many questions are the level of knowledge, comprehension, application, and evaluation. Judie knew of her program's exam blueprint policy stating, "I know that there is a policy ... I know how to do a test blueprint ... So many questions for this and so many questions for that ... I know the concept, but I don't use it." Like novice nurses who fail to follow policy, problems for novice nurse educators typically arise, not from an ignorance of best practice, but from failure to utilize best practice. In this case, Judie chose to omit the use of sound, evidence-based pedagogical practice.

Technological Pedagogical Content Knowledge

Nowhere is the clinical practice-pedagogical proficiency gap among nurse educators more evident than in the lack of technological pedagogical content knowledge (TPCK). TPCK (Mishra & Koehler, 2006) outlines knowledge that educators need to teach a subject effectively and use technology while doing so. The use of technology-assisted tools and techniques includes various activities such as configuring lessons in the LMS, creating and administering computerized exams, conducting simulations with high fidelity equipment, and utilizing multimedia-driven virtual clinical applications such as Shadow Health.

Judie was especially challenged when attempting to reconcile her vast professional experience, i.e., her content knowledge, with her pedagogical knowledge. A common refrain throughout our interview was "I didn't know" when referring to Bloom's taxonomy, computers, adult learning theory, item writing, and many other concepts. A glaring misstep occurred when Judie uploaded a student's private federally protected accommodation information to the college wide LMS system, Blackboard, which indicated a lack of TPCK.

As a topic of research, literature regarding TPCK is well represented in other fields of study, especially science and math, but less so in nursing academia. Unfortunately, the lack of TPCK among nurse educators is not a new phenomenon. The ability to use technology-assisted tools like high fidelity simulation and virtual clinical experiences varies greatly among faculty. The complexity of currently available technology pushes many nurse educators far beyond the limits of their comfort zones. Judie relied on a student in the cohort to generate the class quizzes in Kahoot because, as she often stated, “I don’t know computers.”

As someone employed in the computer industry for almost a decade, I self-deprecatingly joke with my nursing students stating, “I am proudly computer stupid (I’m really not), and I intend to stay that way!” Enter the novel coronavirus, also known as SARS-CoV-2 or Covid-19. The world changed seemingly overnight. As a result, nurse educators (myself included) have spent the last six months running like little race cars to catch up.

The Tech Train is Leaving the Station

The emergence of the novel coronavirus in the early months of 2020 plunged much of academia into semi-controlled chaos, creating new technological challenges, and exacerbating existing deficiencies. Colleges with a robust online presence, for example, Western Governors University (fully online university since 1997), were ahead of the technological learning curve (WGU, n.d.). However, the technological competencies needed to teach in the traditional academic setting changed rapidly and drastically (Crawford et al., 2020). By the end of an extended spring break, we nurse educators moved our nursing programs into disaster management mode. Didactic classes moved online, and on-site clinical opportunities evaporated as facilities restricted access to all but essential workers (Dewart et al., 2020).

In my program alone, we moved over 700 students from face-to-face instruction to remote online instruction in 10 days. Willful or casual ignorance of technology and the application of such in the classroom or clinical setting was no longer an option. Amid the chaos, program administrators expected clinically proficient, but technologically naïve, faculty to navigate online meeting platforms such as Blackboard Collaborate, Microsoft Teams, Webex, and Zoom. Our faculty and students dove head-first into the virtual world with simulated clinical activities using Shadow Health and Swift River.

Each technological package came with a learning curve, some of which were more difficult to navigate than others. Furthermore, internet access became a substantial issue for our students and faculty alike, especially for those who lived in rural settings. Families with only one computer between adults and children also had substantial difficulties when all members of the family had a need for internet access.

It is my opinion that the abrupt shift in the delivery of instruction *was not and is not* online distance education. Distance education has an established research base and an associated pedagogy. What academia experienced in the spring of 2020 was *emergency remote teaching*. Yet not all faculty considered the 2020 spring semester a slow-motion train wreck.

I contacted Abbie at the end of the spring 2020 semester and asked her to describe the changes her program made in relation to the pandemic. Her response, not surprising knowing as I did of her ability to swim, was:

There is much that I actually liked about this semester ... While I had some stress from the fast ramp up learning Zoom and Swift River, I quickly found that most platforms have similar functions and just look different. Two weeks in and I was thinking I could teach 100% online!

Abbie then spoke of a seasoned faculty member who took on the task of adding proctoring

technologies stating, “Mary put our exams through the Honorlock process. She even did a trial run of the system with a short quiz. We almost lost her during that week due to the stress.”

The utilization of technology, formerly tolerated by many nurse educators, is now a critical component to be woven into our teaching and learning milieu. Programs must continue to meet all programmatic and regional accreditation requirements, although the Texas Board of Nursing (TBON) demonstrated some slight flexibility in applying the rules in response to the governor’s disaster declaration (TBON, 2020). The virulence of the pandemic has forced nurse educators to reconsider how to educate nurses. “The pandemic is challenging us to design and deliver creative solutions [brought about by] decreased availability of clinical settings yet still deliver effective education that meets professional standards and desirable learning outcomes” (Nelson, 2020, para 6). The full impact of this pandemic-inspired paradigm shift on end of program student learning outcomes and more importantly, patient health and safety, will not be known until the class of December 2021 graduates and enters professional practice.

Get on Board or Get Left Behind

The proficient use of technology has been an expectation of our profession since the late 20th century (Axley, 2008). In the current crisis, nursing students and some faculty have enthusiastically embraced digitalized clinical experiences, for example Swift River Virtual Clinical, even as “old school” nurse educators give voice to their resistance. According to Yoho (2020), TPCK competencies align with the NLN Nurse Educator Core Competency VI: The pursuit of continuous quality improvement in the academic nurse educator role (NLN, 2005). Moreover, TPCK competencies are an expectation of the Certified Nurse Educator (Yoho, 2020). “Essentially, many of our faculty have not been educated as educators, have not been exposed to TPCK, and are therefore not aware of Shulman’s model. We should educate our fellow faculty in

using this type and level of technology” (M. Yoho, personal communication, August 10, 2020).

To that end as nurse educators, novice and expert alike, we must accelerate our efforts to acquire TPACK to catch up and then keep up with the technologies so suddenly thrust upon us.

Implications

The future of nursing education belongs to those educators who recognize the need to transform how nursing is taught and tested to better prepare students for real-world practice (Keith Rischer, personal communication, September 8, 2020). It is crucial that all nurse educators know about teaching and learning, assessment and evaluation, and curriculum development. Although pedagogical courses are included in some master’s and doctoral nursing programs, for example specific nurse educator programs, they are not required of all programs (Booth et al., 2016; Dreifuerst et al., 2016). This difference in curriculum regarding pedagogical requirements complicates nursing education and creates confusion when there should be none (Booth et al., 2016). More attention must to be given to the pedagogical components of the nurse educator role so that novice nurse educators may quickly bridge the clinical practice-pedagogical proficiency gap.

It is essential that nurse educators be recognized as APRNs which includes the implementation of an academic standard of pedagogical preparation (Booth et al., 2016). Specialized pedagogical knowledge and preparation are essential for practice as nurse educators. As such, advanced practice knowledge and skill sets should be recognized by nursing practice and nursing education communities as (a) advanced practice nursing and (b) the academic standard of care.

The nursing profession must reach a consensus regarding the preparation of nurse educators (Booth et al., 2016). In essence, we must establish an *academic standard of care*. Just

as novice nurses must meet minimal safe competencies to enter nursing practice, so too should nurse educators meet minimal pedagogical competencies to enter academia. Ideally, all graduate nursing programs should include teacher education courses complete with a teaching practicum if the goal is to enter academia (Benner et al., 2010; Schoening, 2013). The AACN, the NLN, and NurseTim Incorporated offer post-master's faculty development opportunities. The curriculum of these programs, designed for new nurse educators, specifically addresses pedagogical needs and includes exam construction.

Limitations

The results of this qualitative study are not generalizable to the larger population of nurse educators teaching in ADN programs. The sample size for this study was appropriate for a qualitative study, but it is considered a small sample size. Even so, the results provide insight into the educational preparation, or lack thereof, of future nurse educators. Such an understanding can inform professional literature and individual graduate nursing programs.

Only five of the 68 Texas ADN programs were represented in this study. Two storytellers were from the same program, albeit at different campuses. A larger sample may have yielded more description and depth of information as well as a more accurate representation of the broader population. The inclusion of additional novice nurse educators may have brought forth similar or different responses that could have supported or altered the study findings.

A second limitation of the study was the homogenous nature of the sample population. Although I attempted to recruit participants from the entire state, all who agreed to participate in the study were women; five of whom were Caucasian and one of whom was Hispanic. Even though this is a limitation the sample demographic profile is consistent with the national demographic composition of nursing faculty who are predominately Caucasian females. The

inclusion of male participants, participants of diverse backgrounds, or those teaching in BSN programs may have provided more or contrasting information.

A third limitation of this study is my positionality as a proficient nurse educator, a doctoral candidate, and a novice researcher. Having been an expert nurse clinician who successfully transitioned to academia, I am familiar with the likely challenges experienced by storytellers in their novice nurse educator role. To that end, I embraced my actual and potential biases and strove to assist storytellers in whatever way possible to help them gain a few pearls of pedagogical knowledge.

Recommendations for Future Research

This study was conducted with six participants from five ADN programs in the state of Texas. A possible opportunity for future research would be a study with novice nurse educators from additional ADN programs in the state or in multiple states, to determine if experiences were the same or similar issues were noted. Additionally, a study with a BSN program sample may yield different results.

From this research, nursing programs could gain insight into how novice nurse faculty develop their pedagogical content knowledge. Such would aid in the creation of a culture that nurtures and supports novice nurse educators as they journey through the continuum from expert nurse clinician to expert nurse educator. The anticipated outcome would be increased faculty satisfaction, enhanced teaching effectiveness, and improved exam construction skills, all of which would benefit both faculty and students.

A Most Reluctant Scholar

I asked of myself the same question I asked storytellers. Upon reflection, what have I learned about myself during this journey? What do I know now that I wish I had known earlier?

What Have I Learned About Myself?

My nurse educator identity (Cain, 2018) has undergone an unexpected but not unpleasant metamorphosis. Prior to and during most of this journey, I considered myself a nurse first and an educator second. I held onto the belief that I would always and forever be a nurse, an obstetrics nurse, first. I treasured my nurse identity. During the final year of course work, I suddenly and unexpectedly realized that I have been transformed into an educator who can also provide nursing care. That I now consider myself to be an educator first, a professor, in the education of soon to be fellow nurses, is a profound shift in my personal and professional identity. One could say that I have experienced the same un-structuring and restructuring as that experienced by storytellers.

I learned that I enjoyed the research process. I can now consume research, evaluate research, and produce research. I especially enjoyed the search for literature to support or refute a concept. I have introduced several terms into this work that may or may not gain traction in nursing academia: (a) academic standard of care, (b) holistic content knowledge, (c) after the fact mentoring, and (d) clinical practice-pedagogical proficiency gap.

I learned that I can, indeed, write in a scholarly style. That said, I resist, rebel, and use non-traditional methodology because I still loathe writing with every fiber of my scholarly being.

What I Wish I Had Known

Master et al., (2001) studied exam items in nursing textbook test banks and highlighted the extent of flawed exam items contained within. At the time, many nurse educators considered questions irredeemably flawed and therefore considered test banks useless. Electronic versions of textbook test banks were available for download but test generation capabilities were minimal, at best. Commercially available online testing alternatives were non-existent even though the

NCLEX RN had been computerized since 1994. Remote proctoring of exams had not been developed.

Item writing options and online testing platforms have improved significantly during the past decade. Nurse educators now have multiple options available for use. Some of these options, for example the Intellistem Writer cards, have only become available in recent years, about the time I started this dissertation journey.

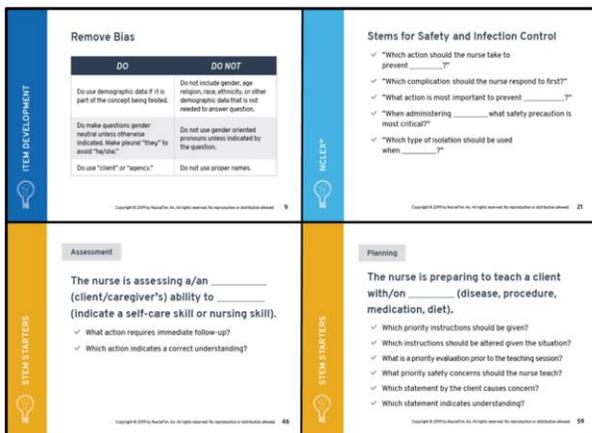
I wish I had known of more technological offerings that make item writing more palatable even to a novice. The Assessment Technologies Institute (ATI) Custom Assessment Builder and many other assessment packages have matured during the past few years. ATI introduced an online testing platform in 2012 (S. Wright, personal communication, September 4, 2020). The sophisticated Custom Assessment Builder (CAB) found in Appendix I has numerous filters that allow faculty to fine tune items to specific needs (ATI, n.d.). The filters have categories including but not limited to (a) the nursing process, (b) acute and chronic disease process, (c) NCLEX RN client needs, and (d) QSEN competencies. The CAB then creates the exam blueprint. In addition, instructors have the capability to administer exams online via the ATI platform or via a third-party exam platform (ATI, n.d.).

I wish I had known that the NCSBN, the organization responsible for creating and administering the NCLEX exam, was going to introduce a new exam (NCLEX NextGen) in which there will be a seismic shift away the time-honored stem-plus-four-distractor multiple choice questions (Caputi, 2018). The new assessment method will involve testing with more clinically realistic rolling case study scenarios in combination with traditional multiple-choice items.

I wish I had known that much of the work pertaining to making item writing easier has already been completed. Today’s demanding educational environment may leave faculty with little time to create exams depending on course load and other academic responsibilities. As Judie so eloquently stated, many nurse educators are just trying to survive and are treading water, now more than ever. Fortunately, significantly improved publisher test banks and other commercially available exam creation tools now exist to help both novice and expert educators alleviate the stress of item writing.

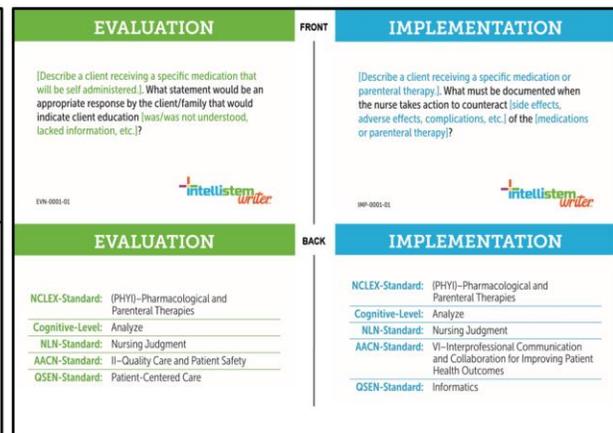
For example, NurseTim, Inc has a set of 65 cards (Figure 16) that include current best practice in exam development, test blueprints, and item analysis (NurseTim, Inc, n.d.). The “stem-starters” address both the NCLEX RN client needs and the nursing process. If faculty lack the knowledge or the time to write exam items, NurseTim consultants will create customized exams matching the curriculum of individual nursing programs. Next, Ruth Eckentein, CEO of Intellistem Writer Corporation created a set of 800 stem starter cards (Figure 17). Each item is a customizable, fill-in-the-blank, NCLEX style item. All items feature the nursing process and are

Figure 16
Lab Coat Notes for Test Item Writing



Copyright 2019 NurseTim, Inc. Used with permission NurseTim Incorporated

Figure 17
Intellistem Writer



Copyright 2019 Intellistem Writer Corporation. Courtesy Ruth Eckenstein, M. Ed., MSN, MSN, RN CEO Intellistem Corporation

mapped to the NCLEX RN categories, Bloom's taxonomy, and NLN, AACN, and QSEN standards. Like ATI and Elsevier, Intellistem Writer also offers online capability for both exam creation and exam administration (Intellistem Writer, n.d.).

The use of sophisticated pedagogical tools, such as those described, does not absolve novice nurse educators of the responsibility to create psychometrically reliable and statistically valid exams. One must still understand the concepts surrounding the creation and administration of NCLEX style exams. However, rather than struggle with the intricacies involved in item writing, perhaps novice nurse educators should use their time more efficiently and learn how to *analyze* and *adapt* published test questions to individual program needs (R. Alfaro, personal communication, August 15, 2020).

Conclusion

Pedagogical Content Knowledge Equals Academic Standard of Care

Shulman (1986) rejected Shaw's acerbic sentiment and other like-minded adages about teachers, and rephrased saying instead, "Those who can, do. Those who *understand*, teach" (p. 11) and I concur. Nurse educators, if properly equipped with both content knowledge and pedagogical knowledge, can make complex content comprehensible to a variety of students (Shulman, 1986). Benner et al. (2010) echoed Shulman regarding the need for pedagogical knowledge among nurse faculty and called for the radical transformation of nursing education.

The process of educating future nurses is truly an intersection of two distinct disciplines. We *can* and we *do* and, given the appropriate pedagogical preparation, we *can also* teach. Novice nurse educators and those responsible for hiring novice faculty must invest in the '*can also*' of teaching. I once again submit that to transform nursing education, we must first transform the

education of our nurse educators by *requiring* formal pedagogical instruction, à la North Carolina, in addition to the critically important clinically focused advanced practice degrees.

We in nursing academia can establish an academic standard of care every bit as rigorous and as sacrosanct as the patient standard of care. Once an academic standard of care is established and validated as best practice in nursing education, once a consensus is reached among accrediting agencies and other organizations, and once accepted by boards of nursing as advanced practice (advanced specialty) nurse educators can finally and rightfully claim as our status that of APRNs.

REFERENCES

- Accreditation Commission for Education in Nursing. (2017). *Accreditation manual standards and criteria*. <http://www.acenursing.net/manuals/SC2017.pdf>
- Adams, R. S., Forin, T., Chua, M., & Radcliffe, D. (2016). Characterizing the work of coaching during design reviews. *Design Studies*, 45, 30-67. <http://doi.org/gftcw5>
- Agger, C. A., Oermann, M. H., & Lynn, M. R. (2014). Hiring and incorporating Doctor of Nursing practice-prepared nurse faculty into academic nursing programs. *Journal of Nursing Education*, 53(8), 439-446. <http://doi.org/dxd3>
- American Association of Colleges of Nursing. (2011). *The essentials of master's education in nursing*. <https://www.aacnnursing.org/Portals/42/Publications/MastersEssentials11.pdf>
- American Association of Colleges of Nursing (2015). *Special survey on vacant faculty position for academic year 2014 – 2015*. <http://www.aacn.nche.edu/leading-initiatives/research-data/vacancy14.pdf>.
- American Association of Colleges of Nursing. (2017). *Position statement on the preferred vision of the professoriate in baccalaureate and graduate nursing programs*. <https://www.aacnnursing.org/Portals/42/News/Position-Statements/Professoriate.pdf>
- American Association of Colleges of Nursing. (2018). *Standards for accreditation of baccalaureate and graduate nursing programs*. <https://www.aacnnursing.org/Portals/42/CCNE/PDF/Standards-Final-2018.pdf>
- American Association of Colleges of Nursing. (2020). *Nurse faculty shortage*. <http://www.aacnnursing.org/News-Information/Fact-Sheets/Nursing-Faculty-Shortage>
- Anderson, L. M., & Stillman, J. A. (2013). Student teaching's contribution to preservice teacher development: a review of research focused on the preparation of teachers for urban and high-needs contexts. *Review of Educational Research*, 83(1), 3-69. <http://doi.org/dxg7>
- Anderson, L. W., & Krathwohl, D. R. (Eds.). (2001). *A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives* (Abridged edition). Pearson.
- Assessment Technology Institute. (n.d.). *Testing made easy: Custom Assessment Builder*. <https://atitesting.com/educator/solutions/custom-assessment-builder>

- Aul, K. (2017). Who's uncivil to who? Perceptions of incivility in pre-licensure nursing programs. *Nurse Education in Practice*, 27, 36-44. <http://doi.org/gcm3cd>
- Axley, L. (2008). The integration of technology into nursing curricula: Supporting faculty via the technology fellowship program. *The Online Journal of Issues in Nursing*, 13(3). doi:10.3912/OJIN.Vol13No03PPT01
- Ball, D. L., Thames, M. H., & Phelps, G. (2008). Content knowledge for teaching: What makes it special? *Journal of Teacher Education*, 59(5), 389-407. <http://doi.org/bwb68s>
- Bamberg, M. (2012). *Narrative analysis*. In H. Cooper, P. M. Camic, D. L. Long, A. T. Panter, D. Rindskopf, & K. J. Sher (Eds.), *APA handbooks in psychology. APA handbook of research methods in psychology, Vol. 2. Research designs: Quantitative, qualitative, neuropsychological, and biological* (85–102). American Psychological Association. <http://doi.org/dxd4>
- Benner, P. (1984). *From novice to expert: Excellence and power in clinical nursing practice*. Addison-Wesley.
- Benner, P. (2001). *From novice to expert: Excellence and power in clinical nursing practice* (Rev.ed.). Prentice Hall Health.
- Benner, P. (2005). Using the Dreyfus Model of Skill Acquisition to describe and interpret skill acquisition and clinical judgment in nursing practice and education. *Bulletin of Science, Technology & Society*, 24(3), 188-199. <http://doi.org/ddxhq9>
- Benner, P. (2015). Curricular and pedagogical implications for the Carnegie study, educating nurses: A call for radical transformation. *Asian Nursing Research*, 9(1), 1-6. <https://doi.org/gf8wtm>
- Benner, P., Sutphen, M., Leonard, V., & Day, L. (2010). *Educating nurses: A call for radical transformation*. Jossey-Bass.
- Berger, R. (2015). Now I see it, now I don't: researcher's position and reflexivity in qualitative research. *Qualitative Research*, 15(2), 219-234. <http://doi.org/gdzznm>
- Billings, D. M. (2016). Storytelling: A strategy for providing context for learning. *The Journal of Continuing Education in Nursing*, 47(3), 109-110. <http://doi.org/dxd6>
- Billings, D. M., & Halstead, J. A. (2016). *Teaching in nursing: A guide for faculty* (5th ed.). Elsevier.
- Bloom, B. S., Engelhart, M. D., Furst, E. J., Hill, W. H., & Krathwohl, D. R. (1956). *The classification of educational goals: Handbook I Cognitive Domain*. Edwards Bros.

- Bogdan, R. C., & Biklen, S. K. (2011). *Qualitative research for education: An introduction to theories and methods* (5th ed.). Pearson.
- 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/f8xrcg>
- Bowen, G. A. (2009). Document analysis as a qualitative research method. *Qualitative Research Journal, 9*(2), 27-40. <http://doi.org/d4ngt9>
- Bristol, T., & Brett, A. L. (2015). Test item writing: 3Cs for successful tests. *Teaching and Learning in Nursing, 10*(2), 100-103. <http://doi.org/dxd7>
- Bristol, T. J., Nelson, J. W., Sherrill, K. J., & Wangerin, V. S. (2018). Current state of test development, administration, and analysis. *Nurse Educator, 43*(2), 68-72. <http://doi.org/gc6jj4>
- Brown, G. T., & Abdulnabi, H. H. (2017). Evaluating the quality of higher education instructor-constructed multiple-choice tests: Impact on student grades. *Frontiers in Education, 2*. <http://doi.org/dxd8>
- Brown, T. (2015). *Challenges of a novice nurse educator's transition from practice to classroom*. [Doctoral dissertation, Walden University]. ProQuest Dissertations Publishing. <https://scholarworks.waldenu.edu/cgi/viewcontent.cgi?referer=https://search.yahoo.com/&httpsredir=1&article=1569&context=dissertations>
- Burns, R. (1787). *Poems, chiefly in the Scottish dialect: By Robert Burns*.
- Burton, I. A. (1893). *The Life of Captain Sir Richard F. Burton*. <http://www.burtoniana.org/biography/1893-Isabel-Life/index.html>
- Cain, L. (2018). *The influence of communities of practice on community college nurse educator identity* (Order No. 10837682). [Doctoral dissertation, University of Alabama]. ProQuest Dissertations Publishing. <https://search-proquest-com.libdata.lib.ua.edu/docview/2120542987/fulltextPDF/BEAC0FBB7CA84F13PQ/1?acountid=14472>
- Campbell, P. F., Nishio, M., Smith, T. M., Clark, L. M., Conant, D. L., Rust, A. H., DePiper, J. N., Frank, T. J., Griffin, M. J., & Youyoung, C. (2014). The relationship between teachers' mathematical content and pedagogical knowledge, teachers' perceptions, and student achievement. *Journal for Research in Mathematics Education, 45*(4), 419-459. <https://doi.org/f6v993>
- Caputi, L. J. (2019). Reflections on the Next Generation NCLEX with implications for nursing programs. *Nursing Education Perspectives, 40*(1), 2-3. <https://doi.org/d8wq>

- Chicca, J. (2019). New-to-setting nurse transitions: a concept analysis. *Journal for Nurses in Professional Development*, 35(2), E15-E16. <https://doi.org/d75x>
- Cho, Y., & Tee, F. (2018). Complementing mathematics teachers' horizon content knowledge with an elementary-on-advanced aspect. *Pedagogical Research*, 3(1). <http://doi.org/dxd9>
- Clandinin, D. J. (2015). Stories to live by on the professional knowledge landscape. *Waikato Journal of Education*, 20(3), 183-193. <http://doi.org/dx.fb>
- Clark, C. M., Nguyen, D. T., & Barbosa-Leiker, C. (2014). Student perceptions of stress, coping, relationships, and academic civility: a longitudinal study. *Nurse Educator*, 39(4), 170-174. <http://doi.org/dx.fc>
- Cohen, D., & Crabtree, B. (2006). *Qualitative research guidelines project: Reflexivity*. <http://www.qualres.org/HomeRefl-3703.html>
- Conklin, H. G. (2015). Preparing novice teacher educators in the pedagogy of teacher education. *Action in Teacher Education*, 37(4), 317-333. <http://doi.org/dx.f.d>
- Cooley, S. S., & De Gagne, J. C. (2016). Transformative experience: Developing competence in novice nursing faculty. *Journal of Nursing Education*, 55(2), 96-100. <http://doi.org/f8q5fm>
- Cranford, J. S. (2013). Bridging the gap: Clinical practice nursing and the effect of role strain on successful role transition and intent to stay in academia. *International Journal of Nursing Education Scholarship*, 10(1), 99-105. <http://doi.org/dx.f.f>
- Crawford, J., Butler-Henderson, K., Rudolph, J., Malkawi, B., Glowatz, M., Burton, R., Magni, P. A., & Lam, S. (2020). COVID-19: 20 countries' higher education intra-period digital pedagogy responses. *Journal of Applied Learning & Teaching*, 3(1), 1-20. <https://doi.org/ggrksc>
- Creswell, J. W. (2013). *Qualitative inquiry & research design: Choosing among five approaches* (3rd ed.). Sage.
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). Sage.
- Deakin, H., & Wakefield, K. (2014). Skype interviewing: Reflections of two PhD researchers. *Qualitative Research*, 14(5), 603-616. <http://doi.org/gfn8vb>
- Delgado, C., & Mitchell, M. M. (2016). A survey of current valued academic leadership qualities in nursing. *Nursing Education Perspectives*. 37(1), 10-15. doi:10.5480/14-1496

- Department of Commerce and Consumer Affairs. (2013). *Annual pass rate for Hawaii nursing programs January 1, 2013 through December 31, 2013*.
http://cca.hawaii.gov/pvl/files/2014/08/PublicAnnualPassRate-HI_NursingPrograms2013.pdf
- Department of Commerce and Consumer Affairs. (2014). *Annual pass rate for Hawaii nursing programs. January 1, 2014 through December 31, 2014*.
http://cca.hawaii.gov/pvl/files/2013/06/PublicAnnualPassRate-HI_NursingPrograms-2014.pdf
- Department of Commerce and Consumer Affairs. (2015). *Annual pass rate for Hawaii nursing programs. January 1, 2015 through December 31, 2015*.
http://cca.hawaii.gov/pvl/files/2013/06/PublicAnnualPassRate-HI_NursingPrograms-2015.pdf
- Department of Commerce and Consumer Affairs. (2016). *Annual pass rate for Hawaii nursing programs. January 1, 2016 through December 31, 2016*.
https://cca.hawaii.gov/pvl/files/2016/03/PublicAnnualPassRate-HI_NursingPrograms-2016.pdf
- Dhamani, K., & Kanji, Z. (2017). Assessing the cognitive domain through MCQs: Critical to quality assurance in higher education. *Journal of Higher Education in Africa*, 15(1), 135-142. https://ecommons.aku.edu/eastafrica_fhs_sonam/174
- Dickison, P., Luo, X., Kim, D., Woo, A., Muntean, W., & Bergstrom, B. (2016). Assessing higher-order cognitive constructs by using an information-processing framework. *Journal of Applied Testing Technology*, 17(1), 1–19.
https://www.ncsbn.org/AssessingHigherorderCognitiveConstructs_2016.pdf
- DiSantis, D. J., Ayoob, A. R., & Williams, L. E. (2015). Prevalence of flawed multiple-choice questions in continuing medical education activities of major radiology journals. *American Journal of Roentgenology*, 204(4), 698-702. <http://doi.org/f66z46>
- Downing, S. M. (2005). The effects of violating standard item writing principles on tests and students: The consequences of using flawed test items on achievement examinations in medical education. *Advances in Health Sciences Education*, 10(2), 133-143.
<http://doi.org/c3dz2f>
- Dreifuerst, K. T., McNelis, A. M., Weaver, M. T., Broome, M. E., Draucker, C. B., & Fedko, A. S. (2016). Exploring the pursuit of doctoral education by nurses seeking or intending to stay in faculty roles. *Journal of Professional Nursing*, 32(3), 202-212.
<http://doi.org/dxfj>
- Dreyfus, S. E. (2004). The five-stage model of adult skill acquisition. *Bulletin of Science, Technology & Society*, 24(3), 177-181. <http://doi.org/dz6j6m>

- Dreyfus, H. L., & Dreyfus, S. E. (2009). The relationship of theory and practice in the acquisition of skill. In Benner, P., Tanner, C., & Chesla, C. (Eds.). *Expertise in Nursing Practice* (2nd ed., pp. 1-23). Springer. <http://doi.org/dxfk>
- D'Sa, J. L., & Visbal-Dionaldo, M. L. (2017). Analysis of multiple choice questions: Item difficulty, discrimination index and distractor efficiency. *International Journal of Nursing Education*, 9(3), 109. doi:10.5958/0974-9357.2017.00079.4
- Duchscher, J. B. (2008). A process of becoming: The stages of new nursing graduate professional role transition. *The Journal of Continuing Education in Nursing*, 39(10), 441-450. <http://doi.org/cjcrw3>
- Ebrahimi, H., Hassankhani, H., Negarandeh, R., Azizi, A., & Gillespie, M. (2016). Barriers to support for new graduated nurses in clinical settings: A qualitative study. *Nurse Education Today*, 37, 184-188. <http://doi.org/f8b47p>
- Eckenstein, R. (2020). *Intellistem writer*. Intellistem Writer Corporation. <https://intellistemwriter.com/>
- Ellsworth, R. A., Dunnell, P., & Duell, O. K. (1990). Multiple-choice test items: What are textbook authors telling teachers? *The Journal of Educational Research*, 83(5), 289-293. <http://doi.org/dxfq>
- Fain, P. (2013, June 17). *Credit creep: Community colleges often require more than 60 credits for associate degrees, which could be a barrier to graduation for some students*. <https://www.insidehighered.com/news/2013/06/17/associate-degree-program-requirements-typically-top-60-credits>
- Fang, D., Bednash, G. D., & Arietti, R. (2016). Identify barriers and facilitators to nurse faculty careers for PhD nursing students. *Journal of Professional Nursing*, 32(3), 193-201. <http://doi.org/ggqjbx>
- Fitzpatrick, J. J. (2003). Joint Commission on Accreditation of Health Care Organizations white paper: Health care at the crossroads: Strategies for addressing the evolving nursing crisis. *Policy, Politics, & Nursing Practice*, 4(1), 71-74. <https://doi.org/b5cjcq>
- Fitzpatrick, J. J. (2018). Teaching through storytelling: Narrative nursing. *Nursing Education Perspectives*, 39(2), 60. <http://doi.org/dxfr>
- Flavell, J. H. (1979). Metacognition and cognitive monitoring: A new area of cognitive-development enquiry. *American Psychologist*, 34, 906-911. <http://doi.org/cg33qs>
- Gardiner, I., & Sheen, J. (2016). Graduate nurse experiences of support: A review. *Nurse Education Today*, 40, 7-12. <http://doi.org/f8msmn>

- Gardner, S. S. (2014). From learning to teach to teaching effectiveness: Nurse educators describe their experiences. *Nursing Education Perspectives*, 35(2), 106-111. <http://doi.org/gf85xm>
- Garner, S. L. (2012). *Critical thinking and test item writing* (Power Point presentation). Academic Consulting Group.
- Georgia Department of Education. (n.d.). *Fact Sheet #1 - Performance standard 1: Professional knowledge*. <https://www.gadoe.org/School-Improvement/Teacher-and-Leader-Effectiveness/Documents/TKES%20LTKES%20Documents/TKES%20Fact%20Sheets/Fact%20Sheet%20TKES%20Performance%20Standard%201.pdf>
- Georgii-Hemming, E., & Lilliedahl, J. (2014). Why “what” matters: On the content dimension of music didactics. *Philosophy of Music Education Review*, 22(2), 132-155. <http://doi.org/f3nv3p>
- Gess-Newsome, J. (2015). Teacher professional knowledge bases including PCK: Results of the thinking from the PCK summit. In A. Berry, P. Friedrichsen, & J. Loughran (Eds.), *Re-examining Pedagogical Content Knowledge in Science Education* (pp. 28–42). Routledge.
- Gierl, M. J., Bulut, O., Guo, Q., & Zhang, X. (2017). Developing, analyzing, and using distractors for multiple-choice tests in education: A comprehensive review. *Review of Educational Research*, 87(6), 1082-1116. <http://doi.org/gdxrhj>
- Goldhammer, F. (2015). Measuring ability, speed, or both? Challenges, psychometric solutions, and what can be gained from experimental control. *Measurement: Interdisciplinary Research and Perspectives*, 13(3-4), 133-164. <http://doi.org/gdth33>
- Goodwin, A. L., Smith, L., Souto-Manning, M., Cheruvu, R., Tan, M. Y., Reed, R., & Taveras, L. (2014). What should teacher educators know and be able to do? Perspectives from practicing teacher educators. *Journal of Teacher Education*, 65(4), 284-302. <http://doi.org/dxfs>
- Gore, A., Leasure, A. R., Carithers, C., & Miller, B. (2015). Integrating hand-off communication into undergraduate nursing clinical courses. *Journal of Nursing Education and Practice*, 5(4), 70-76. <http://doi.org/dxft>
- Grassley, J. S., & Lambe, A. (2015). Easing the transition from clinician to nurse educator: An integrative literature review. *Journal of Nursing Education*, 54(7), 361-366. <http://doi.org/f7nb74>
- Guerriero, S. (n.d.). *Teacher’s pedagogical knowledge and the teaching profession: Background report and project objectives*. http://www.oecd.org/education/cei/Background_document_to_Symposium_ITEL-FINAL.pdf

- Guetterman, T. C. (2015). Descriptions of sampling practices within five approaches to qualitative research in education and the health sciences, *Forum: Qualitative Social Research*, 16(2), Art 25. <http://dx.doi.org/10.17169/fqs-16.2.2290>
- Haladyna, T. M. (2015). *Developing and validating multiple-choice test items* (3rd ed.). Routledge.
- Haladyna, T. M., & Downing, S. M. (1989). A taxonomy of multiple-choice item-writing rules. *Applied Measurement in Education*, 2(1), 37-50. <http://doi.org/cwwmsz>
- Haladyna, T. M., Downing, S. M., & Rodriguez, M. C. (2002). A review of multiple-choice item-writing guidelines for classroom assessment. *Applied Measurement in Education*, 15(3), 309-333. <http://doi.org/b2xhr6>
- Haladyna, T. M., & Rodriguez, M. C. (2013). *Developing and validating test items*. Routledge.
- Hawkes, H. E., Lindquist, E. F., & Mann, C. R. (1937). *The construction and use of achievement examinations: A manual for secondary school teachers*. American Council on Education.
- Hijji, B. M. (2017). Flaws of multiple choice questions in teacher-constructed nursing examinations: A pilot descriptive study. *Journal of Nursing Education*, 56(8), 490-496. <http://doi.org/gbwg92>
- Holloway, I., & Galvin, K. (2016). *Qualitative research in nursing and healthcare* (4th ed.). Wiley-Blackwell.
- Hooper, J. I., & Ayars, V. D. (2017). How Texas nursing education programs increased NCLEX pass rates and improved programming. *Journal of Nursing Regulation*, 8(3), 53-58. <http://doi.org/dxfw>
- Hunsicker, J., & Chitwood, T. (2018). High-stakes testing in nursing education. *Nurse Educator*, 43(4), 183-186. <http://doi.org/gdwqm7>
- Ignatavicius, D., & Chung, C. E. (2016). Professional development for nursing faculty: Assessing transfer of learning into practice. *Teaching and Learning in Nursing*, 11(4), 138-142. <http://doi.org/dxfx>
- Illinois Department of Financial and Professional Regulation. (2020). Illinois approved nursing education programs. <https://www.idfpr.com/Forms/DPR/NurseSchools.pdf>
- Institute of Medicine. (2011). *The future of nursing: Leading change, advancing health*. National Academies Press.
- Intellistem Writer. (n.d.) *Intellistem Writer*[®] *Online* (patent pending). <https://intellistemwriter.com/intellistem-online/>

- Ironside, P. M. (2015). Narrative pedagogy: Transforming nursing education through 15 years of research in nursing education. *Nursing Education Perspectives*, 36(2), 83-88. <http://doi.org/d6j6>
- Jakobsen, A., Thames, M., & Ribeiro, C. (2013). Delineating issues related to Horizon Content Knowledge for mathematics teaching. Proceedings of CERME 8, 3125-3134. https://www.researchgate.net/publication/258960348_Delineating_issues_related_to_Horizon_Content_Knowledge_for_mathematics_teaching
- Jewell, A. (2013). Supporting the novice nurse to fly: A literature review. *Nurse Education in Practice*, 13(4), 323-327. <http://doi.org/dxfz>
- Jones, A., & Moreland, J. (2017). Considering pedagogical content knowledge in the context of research on teaching: An example from technology. *Waikato Journal of Education*, 9, 77-89. <http://doi.org/d6mv>
- Josselson, R. (2011). Narrative research: Constructing, deconstructing and reconstructing story. In *Five ways of doing qualitative analysis: Phenomenological psychology, grounded theory, discourse analysis, narrative research, and intuitive inquiry* (pp. 224-240). Guilford Press.
- Joswiak, M. E. (2018). Transforming Orientation Through a Tiered Skills Acquisition Model. *Journal for Nurses in Professional Development*, 34(3), 118-122. <http://doi.org/dxf3>
- Kahoot!. (n.d.). *Kahoot! For schools: How it works*. <https://kahoot.com/schools/how-it-works/>
- Kaylor, S. K. (2014). Preventing information overload: Cognitive load theory as an instructional framework for teaching pharmacology. *Journal of Nursing Education*, 53(2), 108-111. <http://doi.org/gbfpzn>
- Kelly, J., & McAllister, M. (2013). Lessons students and new graduates could teach: A phenomenological study that reveals insights on the essence of building a supportive learning culture through preceptorship. *Contemporary Nurse*, 44(2), 170-177. doi:10.5172/conu.2013.44.2.170
- Khan, H. F., Danish, K. F., Awan, A. S., & Anwar, M. A. (2013). Identification of technical item flaws leads to improvement of the quality of single best multiple choice questions. *Pakistan Journal of Medical Sciences*, 29(3). <http://doi.org/dxf5>
- Knight, S. L., Lloyd, G. M., Arbaugh, F., Gamson, D., McDonald, S., & Nolan, J. (2014). Professional development of teacher educators. *Journal of Teacher Education*, 65(4), 268-270. <http://doi.org/dxf6>

- Koehler, M. J., Mishra, P., Kereluik, K., Shin, T. S., & Graham, C. R. (2014). The technological pedagogical content knowledge framework. In Spector, J. M., Merrill, M. D., Elen, J., & Bishop, M. J. (Eds.), *Handbook of Research on Educational Communications and Technology* (pp. 101-111). Springer. <http://doi.org/dxf7>
- Kowalski, K., & Kelly, B. M. (2013). What's the ROI for resolving the nursing faculty shortage? *Nursing Economic\$, 31*, 70-76. PMID: 23691747.
- Kumi-Yeboah, A., & James, W. (2012). Transformational teaching experience of a novice teacher: A narrative of an award-winning teacher. *Adult Learning, 23*(4), 170-177. <http://doi.org/dxf8>
- Laurencelle, F. L., Scanlan, J. M., & Brett, A. L. (2016). The meaning of being a nurse educator and nurse educators' attraction to academia: A phenomenological study. *Nurse Education Today, 39*, 135-140. <http://doi.org/f8hvc4>
- Lawrence, R. L., & Paige, D. S. (2016). What our ancestors knew: Teaching and learning through storytelling. *New Directions for Adult and Continuing Education, 2016*(149), 63-72. <http://doi.org/dxf9>
- Lewis, P. J., & Hildebrandt, K. (2019). Storytelling as qualitative research. In P. Atkinson, S. Delamont, A. Cernat, J.W. Sakshaug, & R.A. Williams (Eds.), *SAGE Research Methods Foundations*. <http://doi.org/dxgb>
- Loughran, J. (2014). Professionally developing as a teacher educator. *Journal of Teacher Education, 65*(4), 271-283. <http://doi.org/f6fvhm>
- Mann, C., & De Gagne, J. C. (2017). Experience of novice clinical adjunct faculty: A qualitative study. *The Journal of Continuing Education in Nursing, 48*(4), 167-174. <http://doi.org/gbgrtx>
- Marshall, C., & Rossman, G. B. (2016). *Designing qualitative research* (6th ed.). Sage.
- Masters, J. C., Hulsmeyer, B. S., Pike, M. E., Leichty, K., Miller, M. T., & Verst, A. L. (2001). Assessment of multiple-choice questions in selected test banks accompanying text books used in nursing education. *Journal of Nursing Education, 40*(1), 25-32.
- Maxwell, J. A. (2013). *Qualitative research design: An interactive approach* (3rd ed.). Sage.
- McDermid, F., Peters, K., Daly, J. J., & Jackson, D. (2013). 'I thought I was just going to teach': Stories of new nurse academics on transitioning from sessional teaching to continuing academic positions. *Contemporary Nurse, 45*(1), 46-55. <https://doi.org/10.5172/conu.2013.45.1.46>
- McDermid, F., Peters, K., Daly, J., & Jackson, D. (2016). Developing resilience: Stories from novice nurse academics. *Nurse Education Today, 38*, 29-35. <http://doi.org/f8dxwr>

- McGahee, T. W., & Ball, J. (2009). How to read and really use an item analysis. *Nurse Educator*, 34(4), 166-171. <http://doi.org/cjbs3x>
- McKinney, E. S., James, S. R., Murray, S. S., Nelson, K. A., & Ashwill, J. W. (2018). *Maternal-child nursing* (5th ed.). Elsevier.
- McMenamin, P. (2014). *RN retirements - - Tsunami warning! 2022: Where have all the nurses gone?* <http://community.ana.org/blogs/peter-mcmenamin/2014/03/14/rn-retirements-tsunami-warning>
- Meleis, A. (2015). Transitions theory. In Smith, M. C., & Parker, M. E. (Eds.), *Nursing theories & nursing practice* (4th ed., pp. 361-380). F. A. Davis.
- Merriam, S. B., & Tisdell, E. J. (2016). *Qualitative research: A guide to design and implementation* (4th ed.). Jossey-Bass.
- Mishra, P., & Koehler, M. J. (2006). Technological pedagogical content knowledge: A framework for teacher knowledge. *Teachers College Record*, 108(6), 1017-1054. <https://www.learntechlib.org/p/99246/>
- Munhall, P. L. (2012). *Nursing research: A qualitative perspective* (5th ed.). Jones & Bartlett Learning.
- Mupita, J., Widiaty, I., & Abdullah, A. G. (2018). How important is technological, pedagogical, content knowledge? A literature reviews. *IOP Conference Series: Materials Science and Engineering*, 434, 012285. <http://doi.org/d6fd>
- Murray, C., Stanley, M., & Wright, S. (2014). The transition from clinician to academic in nursing and allied health: A qualitative meta-synthesis. *Nurse Education Today*, 34(3), 389-395. <http://doi.org/f5t6n5>
- National Council of State Boards of Nursing. (2012). *NCSBN model rules*. https://www.ncsbn.org/14_Model_Rules_0914.pdf
- National Council of State Boards of Nursing. (2014). *2012 and 2013 Nurse licensee volume and NCLEX examination statistics*. <https://www.ncsbn.org/3970.htm>
- National Council of State Boards of Nursing. (2015). *2014 Nurse licensee volume and NCLEX examination statistics*. <https://www.ncsbn.org/7569.htm>
- National Council of State Boards of Nursing. (2016). *2015 Nurse licensee volume and NCLEX examination statistics*. <https://www.ncsbn.org/9523.htm>
- National Council of State Boards of Nursing. (2017a). *2016 NCLEX examination statistics*. The Council. <https://www.ncsbn.org/11276.htm>

- National Council of State Boards of Nursing. (2017b). *Member board profiles*.
https://www.ncsbn.org/2017_Education_MBPResponses.pdf
- National Council of State Boards of Nursing. (2017c). *Setting the NCLEX passing standards*.
<https://www.ncsbn.org/2630.htm>
- National Council of State Boards of Nursing. (2018a). *2017 NCLEX examination statistics*.
<https://www.ncsbn.org/12719.htm>
- National Council of State Boards of Nursing. (2018b). *The Next Generation NCLEX usability studies*. https://www.ncsbn.org/NGN_Spring18_English.pdf
- National Council of State Boards of Nursing. (2019a). *2018 NCLEX examination statistics*.
<https://www.ncsbn.org/13732.htm>
- National Council of State Boards of Nursing. (2019b). *Member board profiles*.
<https://www.ncsbn.org/2019Education.pdf>
- National Council of State Boards of Nursing. (2020). *APRNs in the U. S.*
<https://ncsbn.org/aprn.htm#:~:text=APRNS%20in%20the%20U.S%20Advanced%20practice%20registered%20nurses,and%20in%20a%20specific%20role%20and%20patient%20population>
- National Council on Measurement in Education. (2017). *Glossary of important assessment and measurement terms*. <https://www.ncme.org/resources/glossary>
- National League for Nursing. (2005). *Nurse Educator Core Competency*.
<http://www.nln.org/professional-development-programs/competencies-for-nursing-education/nurse-educator-core-competency>
- National League for Nursing. (2012). *Fair testing guidelines for nursing education*.
<http://www.nln.org/docs/default-source/default-document-library/fairtestingguidelines.pdf>
- National League for Nursing. (2016). *NLN biennial survey of schools of nursing academic year 2015 - 2016*. <http://www.nln.org/newsroom/nursing-education-statistics/biennial-survey-of-schools-of-nursing-academic-year-2015-2016>
- National League for Nursing. (2018). *Certified nurse educator (CNE) 2018 handbook*.
<http://www.nln.org/professional-development-programs/Certification-for-Nurse-Educators/handbook>
- Nedeau-Cayo, R., Laughlin, D., Rus, L., & Hall, J. (2013). Assessment of item-writing flaws in multiple-choice questions. *Journal for Nurses in Professional Development*, 29(2), 52-57. <http://doi.org/dxgd>

- Nelson, B. (2020, August 21). *Covid-19 necessitates changes to nursing education* (S. Hoang, Interviewer). <https://www.healthleadersmedia.com/nursing/covid-19-necessitates-changes-nursing-education>
- North Carolina Board of Nursing. (2014). *21 NCAC 36.0318 Faculty*. <http://ncrules.elaws.us/code/21ncac36.0318>
- NurseTim Incorporated. (n.d.) *Lab coat notes for test item writing: NurseThink® for Educators*. <https://nursetim.com/bookstore/test-item-writing-cards>
- Oermann, M. H. (2017). Preparing nurse faculty: It's for everyone. *Nurse Educator*, 42(1), 1. <http://doi.org/dxgg>
- Oermann, M. H. (2018). End-of-course examinations: 10 Tips for preparing your tests. *Nurse Educator*, 43(2), 55-56. <http://doi.org/d5nb>
- Oermann, M. H., & Gaberson, K. B. (2017). *Evaluation and testing in nursing education*. (5th ed.). Springer.
- Oermann, M. H., Lynn, M. R., & Agger, C. A. (2015). Faculty openings, shortage, and mentoring in associate degree nursing programs. *Teaching and Learning in Nursing*, 10(3), 107-111. <http://doi.org/dxgh>
- O'Neill, T. (2005). Definition of a logit. *NCLEX Psychometric Technical Brief*, 2. <https://www.scribd.com/document/26369271/NCLEX-RN-Definition-of-Logit>
- Osterlind, S. J. (1989). *Constructing test items*. Kluwer Academic.
- Owens, R. A. (2017). Part-time nursing faculty perceptions of their learning needs during their role transition experiences. *Teaching and Learning in Nursing*, 12(1), 12-16. <https://doi.org/fbfs>
- Paniagua, M., & Swygert, K. (Eds). (2016). *Constructing written test questions for the basic and clinical sciences*. National Board of Medical Examiners. https://www.unmc.edu/facdev/documents/ConstructingWrittenTestQuestions_WritingManual.pdf
- Pasila, K., Elo, S., & Kääriäinen, M. (2017). Newly graduated nurses' orientation experiences: A systematic review of qualitative studies. *International Journal of Nursing Studies*, 71, 17-27. <http://doi.org/gbf84d>
- Pate, A., & Caldwell, D. J. (2014). Effects of multiple-choice item-writing guideline utilization on item and student performance. *Currents in Pharmacy Teaching and Learning*, 6(1), 130-134. <http://doi.org/dxgj>
- Patton, M. Q. (2014). *Qualitative Research & Evaluation Methods: Integrating Theory and Practice* (4th ed.). SAGE Publications.

- Paul, P. A. (2015). Transition from novice adjunct to experienced associate degree nurse educator: A comparative qualitative approach. *Teaching and Learning in Nursing, 10*(1), 3-11. <http://doi.org/dxgk>
- Phillips, C., Bassell, K., & Fillmore, L. (2017). Storytelling and reflective pedagogy: Transforming nursing education through faculty development. *American Journal of Health Sciences, 8*(1), 7-18. <http://doi.org/dxgm>
- Phillips, C., Kenny, A., Esterman, A., & Smith, C. (2014). A secondary data analysis examining the needs of graduate nurses in their transition to a new role. *Nurse Education in Practice, 14*(2), 106-111. <http://doi.org/dxgn>
- Phoenix, B. J. (2013). Developing a culture of mentoring in psychiatric mental health nursing. *Journal of American Psychiatric Nurses Association, 19*(4), 215-216. <https://doi.org/fbcv>
- Pitjeng-Mosabala, P., & Rollnick, M. (2018). Exploring the development of novice unqualified graduate teachers' topic-specific PCK in teaching the particulate nature of matter in South Africa's classrooms. *International Journal of Science Education, 40*(7), 742-770. <http://doi.org/gc6xmg>
- Poindexter, K. (2013). Novice nurse educator entry-level competency to teach: A national study. *Journal of Nursing Education, 52*(10), 559-566. <http://doi.org/f5hvhs>
- Poll Everywhere. (n.d.). *Live activities for teammates, students, and friends*. <https://www.polleverywhere.com/how-it-works>
- Prion, S., & Adamson, K. A. (2014). Making Sense of Methods and Measurement: Rigor in Qualitative Research. *Clinical Simulation in Nursing, 10*(2), e107-e108. <https://doi.org/10.1016/j.ecns.2013.05.003>
- Pugh, D., De Champlain, A., Gierl, M., Lai, H., & Touchie, C. (2016). Using cognitive models to develop quality multiple-choice questions. *Medical Teacher, 38*(8), 838-843. <http://doi.org/dxgq>
- Rice, D. R. (2002). In Search of an ethical imperative: Exploring medicine's standard of care as a concept for higher education. *Journal of Educational Thought, 36*(3), 249-261. <http://doi.org/d6pf>
- Riessman, C. K. (2005). Narrative analysis. In: N. Kelly, C. Horrocks, K. Milnes, B. Roberts, & D. Robinson (Eds), *Narrative, memory & everyday life*. University of Huddersfield. (pp. 1-7).
- Riessman, C. K. (2008). *Narrative methods for the human sciences*. SAGE Publications, Inc.

- Rollnick, M. (2016). Learning about semi-conductors for teaching—The role played by content knowledge in pedagogical content knowledge (PCK) development. *Research in Science Education*, 47, 833-868. <http://doi.org/gbfh9c>
- Rollnick, M., & Mavhunga, E. (2017). Pedagogical content knowledge. In K. Taber, & B. Akpan (Eds). *Science education: An international course companion*. (pp. 507–522). Sense Publishers.
- Sabio, C., & Petges, N. (2019). A Framework for educator storytelling. *Nurse Educator*, 44(4), 207-210. <http://doi.org/dxgr>
- Savin-Baden, M., & Major, C. (2013). *Qualitative research: The essential guide to theory and practice*. Routledge.
- Schoening, A. M. (2013). From bedside to classroom: The nurse educator transition model. *Nursing Education Perspectives*, 34(3), 167-172.
- Scully, D. (2017). Constructing multiple-choice items to measure higher-order thinking. *Practical Assessment, Research & Evaluation*, 22, Article 4. <https://doi.org/10.7275/ca7y-mm27>
- Serembus, J. F. (2016). Improving NCLEX first-time pass rates: A Comprehensive program approach. *Journal of Nursing Regulation*, 6(4), 38-44. <http://doi.org/ggqh73>
- Shagrir, L. (2017). Collaborating with colleagues for the sake of academic and professional development in higher education. *International Journal for Academic Development*, 22(4), 331-342. <http://doi.org/gf4bnf>
- Shapiro, S. (2018). An exploration of the transition to the full-time faculty role among associate degree nurse educators. *Nursing Education Perspectives*, 39(4), 215-220. <http://doi.org/d6mw>
- Shaw, G. B. (1903). *Man and superman: A comedy and a philosophy*. University Press. <https://www.bartleby.com/157/>
- Shulman, L. S. (1986). Those who understand: Knowledge growth in teaching. *Educational Researcher*, 15(2), 4-14. <http://doi.org/bg52xz>
- Shulman, L. S. (1987). Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review*, 57(1), 1-23. <http://doi.org/gc8qnc>
- Shulman, L. S. (2015). PCK Its genesis and exodus. In A. Berry, P. Friedrichsen, & J. Loughran (Eds.), *Re-examining pedagogical content knowledge in science education* (pp. 3–13). Oxford: Routledge.

- Smith, M. J., & Liehr, P. (2014). Story theory. In: *Middle range theory for nursing* (3rd ed.), pp. 205-224. Springer Publishing Company.
- So, H., & Kim, B. (2009). Learning about problem based learning: Student teachers integrating technology, pedagogy and content knowledge. *Australasian Journal of Educational Technology*, 25(1), 101-116. <http://doi.org/gf8rqq>
- Spector, N. (2009). Regulatory recommendations for nursing faculty qualifications. *JONA's Healthcare, Law, Ethics, and Regulation*, 11(2), 54-56. <http://doi.org/cxsc59>
- Spencer, C. (2013). From bedside to classroom: From expert back to novice. *Teaching and Learning in Nursing*, 8(1), 13-16. <http://doi.org/dxgv>
- Spiva, LA., Hart, P. L., Pruner, L., Johnson, D., Martin, K., Brakovich, B., McVay, F., & Mendoza, S. G. (2013). Hearing the voices of newly licensed RNs: The transition to practice. *AJN, American Journal of Nursing*, 113(11), 24-32. <http://doi.org/dxgw>
- Su, W. M., Osisek, P. J., Montgomery, C., & Pellar, S. (2009). Designing multiple-choice test items at higher cognitive levels. *Nurse Educator*, 34(5), 223-227. <http://doi.org/ff8ktj>
- Summers, J. A. (2017). Developing competencies in the novice nurse educator: An integrative review. *Teaching and Learning in Nursing*, 12(4), 263-276. <http://doi.org/dxgx>
- Tarrant, M., Knierim, A., Hayes, S. K., & Ware, J. (2006). The frequency of item writing flaws in multiple-choice questions used in high stakes nursing assessments. *Nurse Education Today*, 26(8), 662-671. <http://doi.org/bfw37q>
- ten Hoeve, Y. (2018). *From student nurse to nurse professional* (Master's thesis, University of Groningen, Groningen, Netherlands). [https://www.rug.nl/research/portal/nl/publications/from-student-nurse-to-nurse-professional\(d0a9c40e-9a2f-4df8-a6fa-a110bae1411f\).html](https://www.rug.nl/research/portal/nl/publications/from-student-nurse-to-nurse-professional(d0a9c40e-9a2f-4df8-a6fa-a110bae1411f).html)
- Texas Board of Nursing. (2017). National Council Licensure Examination - RN (Registered Nurse) Pass Rates for Last 5 Years. https://www.bon.texas.gov/pdfs/education_pdfs/education_programs/RN%205YR-17.pdf
- Texas Board of Nursing. (2018). National Council Licensure Examination - RN (Registered Nurse) Pass Rates for Last 5 Years. https://www.bon.texas.gov/pdfs/education_pdfs/education_programs/RN%205YR-18.pdf
- Timbrell, J. (2017). Instructional storytelling: Application of the clinical judgment model in nursing. *Journal of Nursing Education*, 56(5), 305-308. <http://doi.org/gbhmd4>
- Turner, S. (2014). Transport layer security. *IEEE Internet Computing*, 18(6), 60-63. <http://doi.org/dxgz>

- Tyler, J. A. (2009). Charting the course: How storytelling can foster communicative learning in the workplace. In J. Mezirow & E.W. Taylor (Eds.), *Transformative learning in practice: Insights from community, workplace, and higher education* (pp. 136–147). Jossey Bass.
- Walton, J. A., Lindsay, N., Hales, C., & Rook, H. (2018). Glimpses into the transition world: New graduate nurses' written reflections. *Nurse Education Today*, 60, 62-66. <http://doi.org/gcs4k5>
- Wang, C. C., & Geale, S. K. (2015). The power of story: Narrative inquiry as a methodology in nursing research. *International Journal of Nursing Sciences*, 2(2), 195-198. <http://doi.org/gfn8b8>
- Wasserman, N., & Stockton, J. (2013). Horizon content knowledge in the work of teaching: a focus on planning. *For the Learning of Mathematics*, 33(3), 20-22. www.jstor.org/stable/43894856
- Webb, E. M., Phuong, J. S., & Naeger, D. M. (2015). Does educator training or experience affect the quality of multiple-choice questions? *Academic Radiology*, 22(10), 1317-1322. <http://doi.org/f7smt3>
- Weidman, N. A. (2013). The lived experience of the transition of the clinical nurse expert to the novice nurse educator. *Teaching and Learning in Nursing*, 8(3), 102-109. <http://doi.org/dxg2>
- Western Governors University. (n.d.). Education without boundaries. <https://www.wgu.edu/about/our-story.html>
- Woods, C., West, C., Mills, J., Park, T., Southern, J., & Usher, K. (2015). Undergraduate student nurses' self-reported preparedness for practice. *Collegian*, 22(4), 359-368. <http://doi.org/dxg3>
- World Health Organization. (2016). *Nurse educator core competencies*. https://www.who.int/hrh/nursing_midwifery/nurse_educator050416.pdf
- Xu, X., Kauer, S., & Tupy, S. (2016). Multiple-choice questions: Tips for optimizing assessment in-seat and online. *Scholarship of Teaching and Learning in Psychology*, 2(2), 147-158. <http://doi.org/dxg4>
- Yoho, M. M. (2020, Aug. 6). *Certified Nurse Educator Exam Preparation* [Conference session]. Nuts and Bolts for Nurse Educators, Virtual, Minneapolis, MN, United States.
- Zakari, N. M., Hamadi, H. Y., & Salem, O. (2014). Developing an understanding of research-based nursing pedagogy among clinical instructors: A qualitative study. *Nurse Education Today*, 34(11), 1352-1356. <http://doi.org/f6mftm>
- Ziefle, K. (2018). Incivility in nursing education: Generational differences. *Teaching and Learning in Nursing*, 13(1), 27-30. <http://doi.org/dxg6>

APPENDIX A

ITEM-WRITING GUIDELINES

(Haladyna et al., 2002)

1. Every item should reflect specific content and a single specific mental behavior as called for in test specifications (two-way grid, test blueprint).
2. Base each item on important content to learn; avoid trivial content.
3. Use novel material to test higher level learning. Paraphrase textbook language or language used during instruction when used in a test item to avoid testing for simply recall.
4. Keep the content of each item independent from content of other items on the test.
5. Avoid over specific and over general content when writing MC items.
6. Avoid opinion-based items.
7. Avoid trick items.
8. Keep vocabulary simple for the group of students being tested.
9. Use the question, completion, and best answer versions of the conventional MC, the alternate choice, true-false (TF), multiple true-false (MTF), matching, and the context-dependent item and item set formats, but AVOID the complex MC (Type K) format.
10. Format the item vertically instead of horizontally.
11. Edit and proof items.
12. Use correct grammar, punctuation, capitalization, and spelling.
13. Minimize the amount of reading in each item.
14. Ensure that the directions in the stem are very clear.
15. Include the central idea in the stem instead of the choices.
16. Avoid window dressing (excessive verbiage).
17. Word the stem positively, avoid negatives such as NOT or EXCEPT. If negative words are used, use the word cautiously and ensure that the word appears capitalized and boldface.
18. Develop as many effective choices as possible, but research suggests three is adequate.
19. Vary the location of the right answer according to the number of choices.
20. Place choices in logical or numerical order.
21. Keep choices independent; choices should not be overlapping.
22. Keep choices homogeneous in content and grammatical structure.
23. Keep the length of choices about equal.
24. None-of-the-above should be used carefully.
25. Avoid All-of-the-above.
26. Phrase choices (distractors) positively; avoid negatives such as NOT.
27. Avoid giving clues to the right answer, such as
 - a. Specific determiners including always, never, completely, and absolutely.
 - b. Clang associations, choices identical to or resembling words in the stem.
 - c. Grammatical inconsistencies that cue the test-taker to the correct choice.
 - d. Conspicuous correct choice.
 - e. Pairs or triplets of options that clue the test-taker to the correct choice.
 - f. Blatantly absurd, ridiculous options.
28. Make all distractors plausible.
29. Use typical errors of students to write distractors.

APPENDIX B

NATIONAL AND INTERNATIONAL NURSE EDUCATOR COMPETENCIES

The NLN Core Competencies for Academic Nurse Educators	
Competency I: Facilitate Learning	Nurse educators are responsible for creating an environment in classroom, laboratory, and clinical settings that facilitates student learning and the achievement of desired cognitive, affective, and psychomotor outcomes.
Competency II: Facilitate Learner Development and Socialization	Nurse educators recognize their responsibility for helping students develop as nurses and integrate the values and behaviors expected of those who fulfill that role.
Competency III: Use Assessment and Evaluation Strategies	Nurse educators use a variety of strategies to assess and evaluate student learning in the classroom, laboratory, and clinical settings, as well as in all domains of learning.
Competency IV: Participate in Curriculum Design and Evaluation of Program Outcomes	Nurse educators are responsible for formulating program outcomes and designing curricula that reflect contemporary health care trends and prepare graduates to function effectively in the healthcare environment.
Competency V: Function as a Change Agent and Leader	Nurse educators function as change agents and leaders to create a preferred future for nursing education and nursing practice.
Competency VI: Pursue Continuous Quality Improvements in the Nurse Educator Role	Nurse educators recognize that their role is multidimensional and that an ongoing commitment to develop and maintain competence in the role is essential.
Competency VII: Engage in Scholarship	Nurse educators acknowledge that scholarship is an integral component of the faculty role, and that teaching itself is a scholarly activity.
Competency VIII: Function Within the Educational Environment	Nurse educators are knowledgeable about the educational environment within which they practice and recognize how political, institutional, social, and economic forces impact their role.

(NLN, 2005).

World Health Organization Nurse Educator Core Competencies and Domains		
Domains	Core Competencies	
Theories and principles of adult learning	Nurse educators possess a sound understanding of contemporary educational theories, principles, and models underlying the design of curricula and the value of adult education.	
	Competency 1.1	Exhibit an understanding of conceptual and theoretical foundations and principles related to health profession education and adult learning.
	Competency 1.2	Analyze domains of learning (cognitive, affective and psychomotor) and their application in different academic contexts.
	Competency 1.3	Demonstrate knowledge of curriculum development including community needs assessment, analyses of purpose, philosophy, concepts, and framework.
Curriculum design and implementation	Nurse educators demonstrate the skills and abilities to design, implement, monitor and manage curricula based on sound, contemporary educational models, principles and best evidence.	
	Competency 2.1	Design curricula which support context-based nursing practice needs and reflect current trends in the health-care environment.
	Competency 2.2	Develop and implement a relevant course based on innovative teaching and learning strategies that facilitate student-centered learning and achievement of learning outcomes.
	Competency 2.3	Facilitate theoretical and clinical reasoning among diverse learners with different learning styles and unique learning needs.
	Competency 2.4	Integrate evidence-based teaching and learning processes and help learners interpret and apply evidence in their clinical learning experiences.
	Competency 2.5	Create and maintain a safe environment that is conducive to learning in theoretical, clinical simulation and practice settings.
	Competency 2.6	Use transformational and experiential strategies that develop context-based nursing knowledge, skills, and professional behavior.
	Competency 2.7	Incorporate and engage learners with appropriate information technologies (including eLearning, eHealth) in teaching and learning processes.
	Competency 2.8	Formulate evaluation tools for the teaching and learning experiences, and use the results to monitor learner performance and desired outcomes of courses.
Nursing Practice	Nurse educators maintain current knowledge and skills in theory and practice, based on the best evidence available.	
	Competency 3.1	Maintain competence in nursing practice.
	Competency 3.2	Practice nursing in ways that reflect evidence-based approach and current knowledge.
	Competency 3.3	Plan a variety of teaching and learning activities that foster creativity and innovation in nursing practice and the health-care environment.
Research and Evidence	Nurse educators develop their critical inquiry and the ability to conduct research and utilize findings to identify and solve educational and practice-based problems.	
	Competency 4.1	Synthesize, use and generate knowledge pertinent to nursing education and practice.
	Competency 4.2	Engage in debate and reflection with peers to generate and apply new ideas that contribute to the improvement of nursing education and practice.
	Competency 4.3	Develop future nurse scholars by nurturing a spirit of sharing, inquiry, and self-reflection.
	Competency 4.4	Engage in scholarly writing and publication.
Communication, Collaboration, and partnership	Nurse educators demonstrate effective communication skills that promote collaborative teamwork and enhance partnership among health profession educational and clinical practice.	

	Competency 5.1	Demonstrate intercultural and interdisciplinary competence in the development of curricula, course design, teaching, and nursing practice.
	Competency 5.2	Communicate best practice in nursing education with students, peers and other stakeholders.
	Competency 5.3	Facilitate and foster teamwork and collaboration at educational and clinical institutions both locally and with the wider regional and international community.
Ethical/legal principles and professionalism	Nurse educators demonstrate professionalism including legal, ethical and professional values as a basis for developing nursing education policies, procedures, and decision making.	
	Competency 6.1	Promote social justice, and protection of clients' rights while engaged in teaching and learning processes and delivering nursing care.
	Competency 6.2	Promote ethical and legal principles of integrity, academic honesty, flexibility and respect through role modeling.
	Competency 6.3	Participate in ongoing professional self-development and support the professional learning of colleagues.
	Competency 6.4	Facilitate professionalization for learners by creating learners' self-reflection, personal goal setting, and socialization in the role of the nurse.
	Competency 6.5	Maintain a professional record (curriculum vitae and/or portfolio) that demonstrates current nursing and teaching competence.
Monitoring and evaluation	Nurse educators utilize a variety of strategies to monitor and evaluate nursing programs, curricula, and mastery of student learning.	
	Competency 7.1	Monitor, assess and evaluate teaching and learning methods and experiences in relation to nursing outcomes and learner needs.
	Competency 7.2	Evaluate own teaching competencies by seeking feedback from peers and students. Use feedback to improve role effectiveness.
	Competency 7.3	Develop a variety of assessment tools and methods to ascertain student competence in cognitive, affective and psychomotor domains.
	Competency 7.4	Provide timely constructive verbal and written feedback to learners.
	Competency 7.5	Foster learners' self-assessment skills and reflection on teaching and learning activities.
Management and leadership	Nurse educators demonstrate the skills of system management and leadership to create, maintain and develop the desired nursing program and shape the future of educational institutions.	
	Competency 8.1	Incorporate the mission and strategic plan of the parent institution within the goals of the nursing program when proposing and managing change.
	Competency 8.2	Assume leadership roles at various levels for institutional governance, education development and enhancing nursing practice.
	Competency 8.3	Demonstrate effective and efficient human and financial resource management.
	Competency 8.4	Engage in quality reviews, to assess the strengths and weaknesses of the program based on set criteria. Use the results for benchmarking and ongoing progress.
	Competency 8.5	Use a variety of advocacy strategies to promote nursing education and practice.
	Competency 8.6	Identify opportunities for positive change and effectively manage the change process both at individual and organizational levels.

(WHO, 2016)

The AACN Essentials of Master's Education in Nursing

Essential I: Background for Practice from Sciences and Humanities

Recognizes that the masters-prepared nurse integrates scientific findings from nursing, biopsychosocial fields, genetics, public health, quality improvement, and organizational sciences for the continual improvement of nursing care across diverse settings.

Essential II: Organizational and Systems Leadership

Recognizes that organizational and systems leadership are critical to the promotion of high quality and safe patient care. Leadership skills are needed that emphasize ethical and critical decision making, effective working relationships, and a systems perspective.

Essential III: Quality Improvement and Safety

Recognizes that a masters-prepared nurse must be articulate in the methods, tools, performance measures, and standards related to quality, as well as prepared to apply quality principles within an organization.

Essential IV: Translating and Integrating Scholarship into Practice

Recognizes that the masters-prepared nurse applies research outcomes within the practice setting, resolves practice problems, works as a change agent, and disseminates results.

Essential V: Informatics and Healthcare Technologies

Recognizes that the masters-prepared nurse uses patient-care technologies to deliver and enhance care and uses communication technologies to integrate and coordinate care.

Essential VI: Health Policy and Advocacy

Recognizes that the masters-prepared nurse is able to intervene at the system level through the policy development process and to employ advocacy strategies to influence health and health care.

Essential VII: Interprofessional Collaboration for Improving Patient and Population Health Outcomes

Recognizes that the masters-prepared nurse, as a member and leader of interprofessional teams, communicates, collaborates, and consults with other health professionals to manage and coordinate care.

Essential VIII: Clinical Prevention and Population Health for Improving Health

Recognizes that the masters-prepared nurse applies and integrates broad, organizational, client-centered, and culturally appropriate concepts in the planning, delivery, management, and evaluation of evidence-based clinical prevention and population care and services to individuals, families, and aggregates/identified populations.

Essential IX: Master's-Level Nursing Practice

Recognizes that nursing practice, at the master's level, is broadly defined as any form of nursing intervention that influences healthcare outcomes for individuals, populations, or systems. Masters-level nursing graduates must have an advanced level of understanding of nursing and relevant sciences as well as the ability to integrate this knowledge into practice. Nursing practice interventions include both direct and indirect care components.

(AACN, 2011)

APPENDIX C

STATE NCLEX-RN PASS RATES OF FIRST-TIME, U.S.-EDUCATED CANDIDATES

	BON Passing Standard (%)	2012 Logit = - 0.16	2013 Logit = 0.0	2014	2015	2016	2017	2018
Alabama*	80	90.4	83.1	82.1	84.9	86.6	90.7	89.4
Alaska*	80	90.6	84.0	78.0	87.9	87.1	93.7	89.8
Arizona	80	94.0	88.2	90.0	87.0	86.0	88.1	91.9
Arkansas	75	88.8	86.4	82.0	85.6	83.9	84.9	87.9
California**	NR+	89.9	84.0	83.5	86.9	88.2	90.2	91.0
Colorado*	75	92.1	87.0	86.5	88.3	88.4	90.1	92.4
Connecticut	NR+	91.9	87.9	87.0	90.3	90.2	91.7	92.6
Delaware***	80	86.5	82.5	81.9	88.6	86.4	89.3	89.9
D.C. *	80	81.5	69.0	74.9	67.8	62.6	75.8	92.9
Florida	NR+	85.6	76.8	72.6	72.0	72.7	74.0	72.7
Georgia	80	92.8	85.3	85.4	86.3	86.3	90.5	89.6
Hawaii**	90	82.3	76.6	68.9	77.0	82.2	84.5	88.4
Idaho**	80	88.7	88.1	87.9	87.4	86.9	90.2	90.0
Illinois	75	90.9	85.0	83.9	86.5	84.8	86.2	88.4
Indiana*	80	89.2	82.9	80.6	85.6	84.4	87.2	90.0
Iowa	NR+	90.2	82.2	78.3	80.8	82.0	86.0	86.7
Kansas*	75	87.7	78.9	79.6	82.1	80.4	85.3	89.6
Kentucky	85	92.0	86.0	83.6	89.7	87.1	90.6	90.9
Louisiana*	80	93.1	87.0	85.9	89.3	89.2	92.8	94.5
Maine	80	90.3	82.6	86.0	86.4	84.1	87.9	89.0
Maryland	80	89.3	80.5	80.2	82.4	83.8	87.5	88.2
Massachusetts	NR+	90.8	82.8	80.8	83.6	83.6	86.5	89.4
Michigan	85	91.9	86.2	83.3	85.9	83.4	88.9	88.0
Minnesota	75	88.3	80.5	81.8	83.7	82.9	84.7	85.3
Mississippi	75	91.7	81.9	82.9	84.5	84.5	85.9	88.4
Missouri	80	93.4	87.2	84.3	87.0	85.5	88.7	90.6
Montana	NR+	92.4	87.7	84.9	84.0	83.9	87.2	88.8
Nebraska	NR+	93.1	84.5	86.2	86.9	89.3	91.6	92.4
Nevada	80	94.4	85.0	89.0	90.0	89.3	92.1	91.3
New Hampshire*	NR+	93.8	83.2	85.5	87.0	90.3	90.9	96.7
New Jersey*	75	86.9	78.0	76.6	81.4	85.1	86.5	89.6
New Mexico	80	86.8	79.7	80.6	83.1	83.3	83.8	85.5
New York*	NR+	87.1	78.1	76.8	80.6	82.9	85.0	87.4
North Carolina	NR+	94.1	87.0	88.1	91.8	91.5	91.6	92.3
North Dakota*	80	92.3	85.4	88.2	93.8	90.7	91.6	94.6
Ohio	NR+	89.9	80.2	77.2	81.2	81.1	84.9	86.9
Oklahoma	NR+	91.5	83.1	83.6	85.7	83.8	86.3	88.7
Oregon	85	96.2	89.1	89.1	87.8	87.2	89.5	92.9
Pennsylvania**	80	90.9	85.0	83.4	87.0	88.5	91.3	92.5
Rhode Island	80	92.4	87.2	81.9	85.7	87.0	88.1	89.6
South Carolina	NR+	93.4	86.9	87.1	89.3	87.1	89.8	91.7
South Dakota*	75	90.2	83.9	84.7	86.9	86.1	88.2	90.2
Tennessee	85	93.5	86.6	87.4	88.9	87.2	90.2	92.2
Texas*	80	90.8	81.9	81.2	85.7	87.2	90.1	91.7
Utah	NR+	91.7	83.0	83.8	85.5	81.0	85.4	84.9
Vermont	NR+	89.0	80.7	78.7	84.3	83.9	86.0	86.5
Virginia*	80	90.4	83.1	82.9	87.0	86.9	89.1	91.4
Washington	80	92.5	86.3	85.4	88.8	88.7	89.4	91.0
West Virginia**	80	88.9	82.0	83.5	86.8	88.1	90.4	93.6
Wisconsin	80	91.7	88.1	85.5	87.3	85.6	88.5	90.3
Wyoming*	75	89.3	89.3	81.6	88.8	82.9	90.9	88.9

NCSBN 2012 - 2018 Nurse licensee volume and NCLEX examination statistics. NCSBN Member board profiles. Chicago, IL.
 + No response * States that have achieved NCLEX scores equal to or greater than their 2012 benchmark at least once.

APPENDIX D

CONTACT INFORMATION, DEMOGRAPHIC DATA, EXCLUSION CRITERIA

Contact Information		
1. Name: 2. Phone #: 3. Email: 4. Preferred method of communication: 5. Preferred time to be contacted:		
Demographic Data		
1. Age 2. Gender 3. Ethnicity		
Exclusion Criteria And Qualtrics Parameters		
1. Screening Questions	Include if:	Exclude if:
2. Are you currently employed as a full-time nurse educator in an associate degree program?	Yes	No
3. How long have you been a nurse educator?	Less than 3 yrs	Greater than 3 yrs
4. How many years of nursing experience did you have before entering the teaching profession?	Greater than 7 yrs	Less than 7 yrs
5. In what nursing specialty did you practice?	No exclusion necessary	
6. Do you continue to practice outside the academic profession? a. If yes, in what capacity?	No exclusion necessary	
7. Are you an advanced practice nurse? a. If yes, what are your credentials?	No exclusion necessary	
8. Do you have additional professional qualifications and/or certifications? a. If yes, in what area?	Any certifications other than educational certifications acceptable	CNE
9. Have you taught professionally prior to entering the nursing profession?	No	Yes
10. Do you have undergraduate or graduate-level courses in educational pedagogy such as testing and measurement, curriculum and program development, or teaching and learning?	No	Yes
11. Have you participated in professional development related to item writing?	No	Yes
12. What course(s) do you currently teach?	No exclusion necessary	
13. Do you have primary responsibility for the course(s) in which you are teaching, including the creation of exams? a. If not, what is your primary responsibility in the course?	No exclusion necessary	
14. What is your role in test construction for the course?	No exclusion necessary	
15. Would you be willing to provide copies of your tests and related analysis documents sans identifiers?	No exclusion necessary	

APPENDIX E

LETTER OF INVITATION

Date

Dear Nurse Colleague,

My name is Carla Crider. I am a doctoral student at the University of Alabama in Tuscaloosa, Alabama. I am requesting your help in recruiting participants in a doctoral research study that I am conducting titled: From Novice To Expert To Novice Again: A Descriptive Look At Novice Nurse Educators' First Year Testing Experience. The intention is to elicit the personal experience (i.e., the story) of the expert-clinician-turned-novice-nurse-educator as he/she creates, administers and analyses exams during the first year of full-time teaching. The information provided by this study may help the nursing profession as a whole to create a national academic standard of care related to the education of nurse educators. In addition, it may help nursing programs specifically to provide better mentorship and guidance for novice nurse educators.

This research has received IRB approval from the University of Alabama Office for Research Compliance. If you would, please distribute this invitation to participate in my research to all full-time novice nurse faculty. The link below will take the participant to the informed consent page of the survey. Thank you in advance for your time and attention. I greatly appreciate your help in this endeavor.

Interested faculty: Please utilize the link on the below. Thank you.

Sincerely,
Carla Crider, MSN, EdD(c), RNC, C-EFM
The University of Alabama
College of Education

Clickable Link:

https://proxy.qualtrics.com/proxy/?url=https%3A%2F%2Funiversityofalabama.az1.qualtrics.com%2Fjfe%2Fform%2FSV_eVv8AONKK93FYPP&token=5PF8XRpiYLYnPwiTAeu97StSPtOy7haHSzKQY0v4QzQ%3D

APPENDIX F

RESEARCH QUESTIONS VERSUS SEMI-STRUCTURED INTERVIEW QUESTIONS

Research Question	Participant Question
1. How does the novice nurse educator describe the experience of constructing their first exam?	1. Tell me about your experience regarding the preparation of your first unit exam.
a. What decisions does the novice nurse educator make most frequently regarding exam construction?	a. What decisions did you find yourself making most frequently regarding exam construction?
b. How does the novice nurse educator describe the student response, in general, to the first unit exam?	b. Describe your impression of the student's response, in general, to the first unit exam?
c. If applicable, how does the novice nurse educator describe the students' response specifically to the in-class review of the exam?	c. Describe your impression of the student's response to the first exam review? i. What sort of feedback or reaction did you get from the students
d. Did the students' response match the novice nurse educator's expectations?	d. How did the students' response match your expectations?
e. What do novice nurse educators say they learned from their first exam experience?	e. How confident were you regarding the exam prior to administration? i. Were there any significant issues that arose during the administration of the exam? If so, describe the issue.
f. How does the novice nurse educator describe his/her educational readiness for this functional aspect of nursing education?	f. What did you learn from that first experience that helped you when you had to write the second exam? g. Describe any changes you made on subsequent exams.
2. How and/or what would the novice nurse educator change regarding the preparation and administration process?	2. Reflecting upon the last semester/year, what do you know now that you wish you had known at the beginning of this process? a. How do you describe a well-written exam?
Benner Timeline (to be asked at the conclusion of the interviews)	
1. Are you familiar with Benner's From Novice to Expert framework?	
2. Where would you place yourself on Benner's Novice to Expert timeline related to clinical practice?	
3. Where would you place yourself on Benner's Novice to Expert timeline related to academic practice?	

APPENDIX G

ITEM ANALYSIS BY QUESTION

Participant	Exam 1			# of Students	KR20
				89	0.46
Diff (p)			Point Biserial		
≥ 0.70	Too Easy	35	≥ 0.4	Excellent	2
≥ 0.30 to ≤ 0.69	Desired Value	13	≥ 0.3 to ≤ 0.39	Good	9
< 0.29	Too Hard	2	≥ 0.2 to ≤ 0.29	Fair	9
			≤ 0.19	Poor	30
Items possessing the both the desired level of difficulty and a good/excellent point biserial: 4					
A = 12 (24%)	B = 8 (16%)	C = 12 (24%)	D = 6 (12%)	E = 0 (0%)	Alt = 12 (24%)
Item #	Diff(p)	Point Biserial	Answer	Diff(p)	Point Biserial
1	0.61	0.19	B	Desired Value	Poor
2	0.92	0.11	A	Too Easy	Poor
3	0.55	0.28	D	Desired Value	Fair
4	1.00	0.00	ABD	Too Easy	Poor
5	0.81	0.13	C	Too Easy	Poor
6	0.90	0.10	B	Too Easy	Poor
7	0.69	0.21	D	Desired Value	Fair
8	0.89	0.01	A	Too Easy	Poor
9	0.81	0.16	ABC	Too Easy	Poor
10	0.54	-0.05	ACDE	Desired Value	Poor
11	0.91	0.03	C	Too Easy	Poor
12	0.79	0.15	B	Too Easy	Poor
13	1.00	0.00	ACD	Too Easy	Poor
14	0.56	0.07	C	Desired Value	Poor
15	0.81	0.17	C	Too Easy	Poor
16	0.44	0.32	D	Desired Value	Good
17	0.84	0.30	B	Too Easy	Good
18	0.93	0.31	B	Too Easy	Good
19	0.96	0.16	A	Too Easy	Poor
20	0.65	0.24	AC	Desired Value	Fair
21	0.72	0.34	B	Too Easy	Good
22	1.00	0.00	A	Too Easy	Poor
23	0.73	0.07	A	Too Easy	Poor
24	0.42	0.41	D	Desired Value	Excellent
25	0.75	0.11	A	Too Easy	Poor
26	0.28	0.29	BC	Too Hard	Fair
27	1.00	0.00	A	Too Easy	Poor
28	0.15	0.30	CD	Too Hard	Good
29	0.97	-0.02	C	Too Easy	Poor
30	0.98	0.27	C	Too Easy	Fair
31	0.80	0.39	A	Too Easy	Good
32	0.87	0.27	A	Too Easy	Fair
33	0.94	-0.18	C	Too Easy	Poor
34	0.94	0.18	C	Too Easy	Poor
35	0.83	0.27	A	Too Easy	Fair
36	0.63	0.25	C	Desired Value	Fair
37	0.72	0.32	C	Too Easy	Good
38	0.79	0.13	C	Too Easy	Poor
39	0.56	0.44	B	Desired Value	Excellent
40	0.54	0.33	A	Desired Value	Good
41	0.79	0.18	B	Too Easy	Poor
42	0.94	0.09	A	Too Easy	Poor
43	0.70	0.33	D	Too Easy	Good
44	0.31	0.10	C	Desired Value	Poor
45	1.00	0.00	ABE	Too Easy	Poor
46	1.00	0.00	ABCE	Too Easy	Poor
47	0.31	0.24	BCDE	Desired Value	Fair
48	0.90	0.19	MATH	Too Easy	Poor
49	1.00	0.00	D	Too Easy	Poor
50	0.88	0.18	MATH	Too Easy	Poor
Average	0.76	0.17			

Participant	Exam 2			# of Students	KR20
				8	n/a
Diff (p)			Point Biserial		
≥ 0.70	Too Easy	29	≥ 0.4	Excellent	16
≥ 0.30 to ≤ 0.69	Desired Value	20	≥ 0.3 to ≤ 0.39	Good	4
< 0.29	Too Hard	1	≥ 0.2 to ≤ 0.29	Fair	2
			≤ 0.19	Poor	28
Items possessing the both the desired level of difficulty and a good/excellent point biserial: 14					
A = 10 (20%)	B = 17 (34%)	C = 9 (18%)	D = 8 (16%)	E = 0 (0%)	ALT = 6 (12%)
Item #	Diff(p)	Point Biserial	Answer	Diff(p)	Point Biserial
1	1.00	-0.99	B	Too Easy	Poor
2	1.00	-0.99	C	Too Easy	Poor
3	1.00	-0.99	A	Too Easy	Poor
4	1.00	-0.99	D	Too Easy	Poor
5	1.00	-0.99	A	Too Easy	Poor
6	1.00	-0.99	D	Too Easy	Poor
7	1.00	-0.99	C	Too Easy	Poor
8	1.00	-0.99	C	Too Easy	Poor
9	1.00	-0.99	A	Too Easy	Poor
10	1.00	-0.99	C	Too Easy	Poor
11	1.00	-0.99	C	Too Easy	Poor
12	1.00	-0.99	D	Too Easy	Poor
13	1.00	-0.99	D	Too Easy	Poor
14	1.00	-0.99	A	Too Easy	Poor
15	1.00	-0.99	A	Too Easy	Poor
16	1.00	-0.99	B	Too Easy	Poor
17	1.00	-0.99	C	Too Easy	Poor
18	0.88	-0.57	B	Too Easy	Poor
19	0.38	-0.29	A	Desired Value	Poor
20	0.63	-0.13	B	Desired Value	Poor
21	0.75	-0.12	B	Too Easy	Poor
22	0.88	-0.04	A	Too Easy	Poor
23	0.88	0.04	B	Too Easy	Poor
24	0.63	0.08	D	Desired Value	Poor
25	0.63	0.08	B	Desired Value	Poor
26	0.88	0.12	C	Too Easy	Poor
27	0.38	0.13	B	Desired Value	Poor
28	0.50	0.15	D	Desired Value	Poor
29	0.88	0.27	B	Too Easy	Fair
30	0.88	0.27	A	Too Easy	Fair
31	0.50	0.30	B	Desired Value	Good
32	0.38	0.34	B	Desired Value	Good
33	0.50	0.35	B	Desired Value	Good
34	0.63	0.39	B	Desired Value	Good
35	0.75	0.41	D	Too Easy	Excellent
36	0.88	0.42	A	Too Easy	Excellent
37	0.38	0.49	C	Desired Value	Excellent
38	0.50	0.50	B	Desired Value	Excellent
39	0.63	0.54	B	Desired Value	Excellent
40	0.63	0.54	A	Desired Value	Excellent
41	0.75	0.58	B	Too Easy	Excellent
42	0.63	0.60	D	Desired Value	Excellent
43	0.63	0.60	C	Desired Value	Excellent
44	0.38	0.60	B	Desired Value	Excellent
45	0.63	0.60	ACDEF	Desired Value	Excellent
46	0.50	0.65	ABCE	Desired Value	Excellent
47	0.75	0.69	ADEF	Too Easy	Excellent
48	0.75	0.69	BCEF	Too Easy	Excellent
49	0.38	0.80	BCEF	Desired Value	Excellent
50	0.25	0.87	BEF	Too Hard	Excellent
Average	0.75	-0.12			

Participant	Exam 3			# of Students	KR20
				8	N/A
Diff (p)		Point Biserial			
≥ 0.70	Too Easy	44	≥ 0.4	Excellent	14
≥ 0.30 to ≤ 0.69	Desired Value	6	≥ 0.3 to ≤ 0.39	Good	2
< 0.29	Too Hard	0	≥ 0.2 to ≤ 0.29	Fair	0
			≤ 0.19	Poor	4
Items possessing the both the desired level of difficulty and a good/excellent point biserial: 3					
A = 10 (20%)	B = 14 (28%)	C = 15 (30%)	D = 8 (16%)	E = 0 (0%)	Alt = 3 (6%)
Item #	Diff(p)	Point Biserial	Answer	Diff(p)	Point Biserial
1	1.00	-0.99	C	Too Easy	Poor
2	1.00	-0.99	ABE	Too Easy	Poor
3	1.00	-0.99	B	Too Easy	Poor
4	1.00	-0.99	D	Too Easy	Poor
5	1.00	-0.99	B	Too Easy	Poor
6	1.00	-0.99	CD	Too Easy	Poor
7	1.00	-0.99	C	Too Easy	Poor
8	1.00	-0.99	A	Too Easy	Poor
9	1.00	-0.99	B	Too Easy	Poor
10	1.00	-0.99	C	Too Easy	Poor
11	1.00	-0.99	B	Too Easy	Poor
12	1.00	-0.99	A	Too Easy	Poor
13	1.00	-0.99	D	Too Easy	Poor
14	1.00	-0.99	B	Too Easy	Poor
15	1.00	-0.99	C	Too Easy	Poor
16	1.00	-0.99	C	Too Easy	Poor
17	1.00	-0.99	A	Too Easy	Poor
18	1.00	-0.99	C	Too Easy	Poor
19	1.00	-0.99	C	Too Easy	Poor
20	1.00	-0.99	C	Too Easy	Poor
21	1.00	-0.99	B	Too Easy	Poor
22	1.00	-0.99	C	Too Easy	Poor
23	1.00	-0.99	B	Too Easy	Poor
24	1.00	-0.99	D	Too Easy	Poor
25	1.00	-0.99	B	Too Easy	Poor
26	0.88	-0.31	A	Too Easy	Poor
27	0.88	-0.31	D	Too Easy	Poor
28	0.75	-0.13	B	Too Easy	Poor
29	0.88	-0.09	A	Too Easy	Poor
30	0.88	-0.09	B	Too Easy	Poor
31	0.63	-0.02	D	Desired Value	Poor
32	0.75	0.05	D	Too Easy	Poor
33	0.63	0.06	B	Desired Value	Poor
34	0.50	0.15	A	Desired Value	Poor
35	0.75	0.30	B	Too Easy	Good
36	0.63	0.37	A	Desired Value	Good
37	0.63	0.44	BCDE	Desired Value	Excellent
38	0.75	0.47	C	Too Easy	Excellent
39	0.75	0.47	A	Too Easy	Excellent
40	0.88	0.48	C	Too Easy	Excellent
41	0.88	0.48	B	Too Easy	Excellent
42	0.88	0.48	D	Too Easy	Excellent
43	0.88	0.48	C	Too Easy	Excellent
44	0.88	0.59	C	Too Easy	Excellent
45	0.88	0.59	A	Too Easy	Excellent
46	0.88	0.59	C	Too Easy	Excellent
47	0.75	0.82	D	Too Easy	Excellent
48	0.75	0.82	C	Too Easy	Excellent
49	0.75	0.82	B	Too Easy	Excellent
50	0.63	0.83	A	Desired Value	Excellent
Average	0.89	-0.33			

Participant	Exam 4			# of Students	KR20
				189	0.55
Diff (p)		Point Biserial			
≥ 0.70	Too Easy	43	≥ 0.4	Excellent	0
≥ 0.30 to ≤ 0.69	Desired Value	12	≥ 0.3 to ≤ 0.39	Good	11
< 0.29	Too Hard	0	≥ 0.2 to ≤ 0.29	Fair	16
			≤ 0.19	Poor	28
Items possessing the both the desired level of difficulty and a good/excellent point biserial: 4					
A = 20 (36%)	B = 11 (20%)	C = 10 (18%)	D = 10 (18%)	E = 0 (0%)	Alt = 4 (7%)
Item #	Diff(p)	Point Biserial	Answer	Diff(p)	Point Biserial
1	0.95	0.25	A	Too Easy	Fair
2	0.74	0.30	C	Desired Value	Good
3	0.86	0.37	D	Too Easy	Good
4	0.35	0.17	A,B,C,E	Desired Value	Poor
5	0.91	0.08	C	Too Easy	Poor
6	0.60	0.32	B,C,D	Desired Value	Good
7	0.94	0.19	A	Too Easy	Poor
8	0.74	0.21	C	Desired Value	Fair
9	0.97	0.13	B	Too Easy	Poor
10	0.83	0.23	C	Too Easy	Fair
11	0.79	0.34	A	Too Easy	Good
12	0.89	0.30	D	Too Easy	Good
13	0.93	0.21	A	Too Easy	Fair
14	0.99	0.15	D	Too Easy	Poor
15	0.91	0.20	B	Too Easy	Fair
16	0.80	0.11	C	Too Easy	Poor
17	0.78	0.14	A	Too Easy	Poor
18	0.96	0.14	D	Too Easy	Poor
19	0.80	0.29	B	Too Easy	Fair
20	0.96	0.13	D	Too Easy	Poor
21	0.69	-0.04	D	Desired Value	Poor
22	0.88	0.34	B	Too Easy	Good
23	0.99	0.16	A	Too Easy	Poor
24	0.49	0.28	D	Desired Value	Fair
25	0.85	0.23	A	Too Easy	Fair
26	0.60	0.10	A	Desired Value	Poor
27	0.92	0.32	A	Too Easy	Good
28	0.76	0.19	C	Too Easy	Poor
29	0.94	0.21	B	Too Easy	Fair
30	0.86	0.19	C	Too Easy	Poor
31	0.96	0.11	B	Too Easy	Poor
32	0.52	0.24	C	Desired Value	Fair
33	0.93	0.17	B	Too Easy	Poor
34	0.81	0.27	A	Too Easy	Fair
35	0.89	0.29	D	Too Easy	Fair
36	0.96	-0.02	B	Too Easy	Poor
37	0.83	0.16	A	Too Easy	Poor
38	0.99	0.12	A,B	Too Easy	Poor
39	0.87	0.35	A	Too Easy	Good
40	0.99	-0.03	B	Too Easy	Poor
41	0.84	0.10	B	Too Easy	Poor
42	0.89	0.37	C	Too Easy	Good
43	0.79	0.23	B	Too Easy	Fair
44	0.72	0.38	A	Desired Value	Good
45	0.96	0.14	D	Too Easy	Poor
46	0.87	0.22	A	Too Easy	Fair
47	0.92	0.28	A	Too Easy	Fair
48	0.62	0.33	A	Desired Value	Good
49	0.39	0.15	A	Desired Value	Poor
50	0.98	0.10	A	Too Easy	Poor
51	0.79	0.12	C	Too Easy	Poor
52	0.78	0.21	A	Too Easy	Fair
53	0.60	0.09	A	Desired Value	Poor
54	0.88	0.19	B,D,E	Too Easy	Poor
55	0.96	0.18	D	Too Easy	Poor
Average	0.83	0.20			

Participant	Exam 5			# of Students	KR20
				183	0.59
Diff (p)			Point Biserial		
≥ 0.70	Too Easy	48	≥ 0.4	Excellent	0
≥ 0.30 to ≤ 0.69	Desired Value	7	≥ 0.3 to ≤ 0.39	Good	6
< 0.29	Too Hard	0	≥ 0.2 to ≤ 0.29	Fair	28
			≤ 0.19	Poor	21
Items possessing the both the desired level of difficulty and a good/excellent point biserial: 1					
A = 13 (23%)	B = 16 (29%)	C = 10 (18%)	D = 11 (20%)	E = 0 (0%)	Alt = 5 (9%)
Item #	Diff(p)	Point Biserial	Answer	Diff(p)	Point Biserial
1	0.85	0.15	A	Too Easy	Poor
2	0.96	0.10	D	Too Easy	Poor
3	0.97	0.01	C	Too Easy	Poor
4	0.89	0.17	B	Too Easy	Poor
5	0.81	0.23	B	Too Easy	Fair
6	0.82	0.00	C	Too Easy	Poor
7	0.82	0.23	B	Too Easy	Fair
8	0.97	0.26	C	Too Easy	Fair
9	0.90	0.24	D	Too Easy	Fair
10	1.00	0.00	A,B,C,F	Too Easy	Poor
11	0.65	0.22	B	Desired Value	Fair
12	0.95	0.21	C	Too Easy	Fair
13	0.72	0.23	D,E	Too Easy	Fair
14	0.84	0.05	B	Too Easy	Poor
15	0.70	0.36	A	Too Easy	Good
16	0.85	0.20	D	Too Easy	Fair
17	0.80	0.26	B	Too Easy	Fair
18	0.88	0.16	D	Too Easy	Poor
19	0.94	0.16	D	Too Easy	Poor
20	0.75	0.23	A	Too Easy	Fair
21	0.83	0.15	B	Too Easy	Poor
22	0.54	0.25	D	Desired Value	Fair
23	0.97	0.08	B	Too Easy	Poor
24	0.91	0.31	A	Too Easy	Good
25	0.94	0.34	D	Too Easy	Good
26	0.66	0.21	B	Desired Value	Fair
27	0.99	0.10	C	Too Easy	Poor
28	0.85	0.32	B	Too Easy	Good
29	0.72	0.23	B	Too Easy	Fair
30	0.91	0.21	A,D	Too Easy	Fair
31	0.72	0.37	A	Too Easy	Good
32	0.80	0.24	A	Too Easy	Fair
33	0.97	0.04	C	Too Easy	Poor
34	0.68	0.23	A	Desired Value	Fair
35	0.73	0.29	D	Too Easy	Fair
36	0.75	0.24	A	Too Easy	Fair
37	0.86	0.27	B	Too Easy	Fair
38	0.47	0.18	A,B,C,E	Desired Value	Poor
39	0.79	0.26	D	Too Easy	Fair
40	0.75	0.24	B	Too Easy	Fair
41	0.79	0.14	D	Too Easy	Poor
42	0.98	0.23	B	Too Easy	Fair
43	0.92	0.22	A	Too Easy	Fair
44	0.73	0.17	B	Too Easy	Poor
45	0.79	0.28	C	Too Easy	Fair
46	0.38	0.39	B,C,E	Desired Value	Good
47	0.89	0.17	B	Too Easy	Poor
48	0.90	0.24	A	Too Easy	Fair
49	0.89	0.26	A	Too Easy	Fair
50	0.75	0.24	C	Too Easy	Fair
51	0.95	0.17	C	Too Easy	Poor
52	0.85	0.19	A	Too Easy	Poor
53	0.64	0.27	D	Desired Value	Fair
54	1.00	0.00	C	Too Easy	Poor
55	0.97	0.06	A	Too Easy	Poor
Average	0.82	0.20			

Participant	Exam 6			# of Students	KR20
				182	0.61
	Diff (p)			Point Biserial	
≥ 0.70	Too Easy	37	≥ 0.4	Excellent	2
≥ 0.30 to ≤ 0.69	Desired Value	17	≥ 0.3 to ≤ 0.39	Good	1114
< 0.29	Too Hard	1	≥ 0.2 to ≤ 0.29	Fair	28
			≤ 0.19	Poor	
Items possessing the both the desired level of difficulty and a good/excellent point biserial: 6					
A = 7 (13%)	B = 17 (31%)	C = 13 (24%)	D = 10 (18%)	E = 0 (0%)	Alt = 8 (15%)
Item #	Diff(p)	Point Biserial	Answer	Diff(p)	Point Biserial
1	0.63	0.19	C	Desired Value	Poor
2	0.96	0.08	C	Too Easy	Poor
3	0.85	0.30	C	Too Easy	Good
4	0.66	0.33	B	Desired Value	Good
5	0.77	0.26	B	Too Easy	Fair
6	0.91	0.18	B	Too Easy	Poor
7	0.93	0.12	B	Too Easy	Poor
8	0.87	0.22	A	Too Easy	Fair
9	0.87	0.18	A	Too Easy	Poor
10	0.91	0.22	D	Too Easy	Fair
11	0.89	0.04	D	Too Easy	Poor
12	0.86	0.25	A	Too Easy	Fair
13	0.73	0.40	A	Too Easy	Excellent
14	0.79	-0.04	B,C	Too Easy	Poor
15	0.87	0.38	C	Too Easy	Good
16	0.73	0.12	C	Too Easy	Poor
17	0.71	0.08	D	Too Easy	Poor
18	0.62	0.29	C	Desired Value	Fair
19	0.73	0.22	B	Too Easy	Fair
20	0.72	0.33	B	Too Easy	Good
21	0.88	0.37	A	Too Easy	Good
22	0.85	0.39	B	Too Easy	Good
23	0.49	0.28	B	Desired Value	Fair
24	1.00	0.00	B	Too Easy	Poor
25	0.75	0.21	A	Too Easy	Fair
26	0.79	0.21	C	Too Easy	Fair
27	0.56	0.36	B	Desired Value	Good
28	1.00	0.00	B	Too Easy	Poor
29	0.55	0.26	C	Desired Value	Fair
30	0.34	0.12	A,B,E	Desired Value	Poor
31	1.00	0.00	D	Too Easy	Poor
32	1.00	0.00	B	Too Easy	Poor
33	0.96	0.12	C	Too Easy	Poor
34	0.05	0.18	A,B,C,D,E	Too Hard	Poor
35	0.98	0.12	A,C,D	Too Easy	Poor
36	0.66	0.38	C	Desired Value	Good
37	0.87	0.18	B	Too Easy	Poor
38	1.00	0.00	D	Too Easy	Poor
39	0.68	0.18	B	Desired Value	Poor
40	0.97	0.09	C	Too Easy	Poor
41	0.59	0.23	C	Desired Value	Fair
42	0.58	0.08	A	Desired Value	Poor
43	0.70	0.08	C	Too Easy	Poor
44	1.00	0.00	A,B,D	Too Easy	Poor
45	0.76	0.38	D	Too Easy	Good
46	0.70	0.17	D	Too Easy	Poor
47	0.53	0.29	A,B,C	Desired Value	Fair
48	0.87	0.14	B	Too Easy	Poor
49	0.63	0.25	D	Desired Value	Fair
50	0.63	0.29	B	Desired Value	Fair
51	0.90	0.36	D	Too Easy	Good
52	0.59	0.34	B	Desired Value	Good
53	0.62	0.33	D	Desired Value	Good
54	0.41	0.55	Math	Desired Value	Excellent
55	0.83	0.00	Math	Too Easy	Poor
Average	0.76	0.20			

Participant	Exam 7			# of Students	KR20
				181	0.63
	Diff (p)			Point Biserial	
≥ 0.70	Too Easy	43	≥ 0.4	Excellent	3
≥ 0.30 to ≤ 0.69	Desired Value	11	≥ 0.3 to ≤ 0.39	Good	10
< 0.29	Too Hard	1	≥ 0.2 to ≤ 0.29	Fair	18
			≤ 0.19	Poor	24
Items possessing the both the desired level of difficulty and a good/excellent point biserial: 5					
A = 10 (18%)	B = 12 (22%)	C = 13 (24%)	D = 14 (25%)	E = 0 (0%)	Alt = 6 (11%)
Item #	Diff(p)	Point Biserial	Answer	Diff(p)	Point Biserial
1	0.82	0.27	D	Too Easy	Fair
2	0.91	0.34	D	Too Easy	Good
3	0.73	0.03	C	Too Easy	Poor
4	0.52	0.21	A,B,D,E	Desired Value	Fair
5	0.85	0.31	D	Too Easy	Good
6	0.83	0.26	C	Too Easy	Fair
7	0.88	0.26	B	Too Easy	Fair
8	0.86	0.14	C	Too Easy	Poor
9	0.45	0.26	A,B,E	Desired Value	Fair
10	0.79	0.25	B	Too Easy	Fair
11	0.94	0.14	D	Too Easy	Poor
12	0.72	0.14	C	Too Easy	Poor
13	0.93	0.21	C	Too Easy	Fair
14	1.00	0.00	D	Too Easy	Poor
15	0.78	0.10	B	Too Easy	Poor
16	0.54	0.31	A	Desired Value	Good
17	0.78	0.19	A	Too Easy	Poor
18	0.51	0.33	B	Desired Value	Good
19	0.80	0.04	D	Too Easy	Poor
20	1.00	0.00	C,D,E	Too Easy	Poor
21	0.88	0.27	A	Too Easy	Fair
22	0.73	0.23	C	Too Easy	Fair
23	0.88	0.40	D	Too Easy	Excellent
24	0.75	0.18	D	Too Easy	Poor
25	0.68	0.15	C	Desired Value	Poor
26	0.71	0.41	A	Too Easy	Excellent
27	0.92	0.18	D	Too Easy	Poor
28	0.59	0.29	A,C,D	Desired Value	Fair
29	0.78	0.16	D	Too Easy	Poor
30	0.99	-0.07	B	Too Easy	Poor
31	0.73	0.31	B	Too Easy	Good
32	0.98	0.29	A	Too Easy	Fair
33	0.99	0.30	C	Too Easy	Good
34	0.91	0.19	B	Too Easy	Poor
35	0.71	0.34	D	Too Easy	Good
36	0.89	0.27	A	Too Easy	Fair
37	0.97	0.25	C	Too Easy	Fair
38	0.99	0.15	D	Too Easy	Poor
39	0.67	0.25	B	Desired Value	Fair
40	0.90	0.16	C	Too Easy	Poor
41	0.67	0.30	B	Desired Value	Good
42	0.90	0.26	A	Too Easy	Fair
43	0.91	0.12	C	Too Easy	Poor
44	0.82	0.24	A,B	Too Easy	Fair
45	0.90	0.20	D	Too Easy	Fair
46	0.95	0.11	C	Too Easy	Poor
47	0.77	0.16	B	Too Easy	Poor
48	0.71	0.36	A	Too Easy	Good
49	0.96	0.11	B	Too Easy	Poor
50	0.92	0.11	C	Too Easy	Poor
51	0.65	0.16	A	Desired Value	Poor
52	0.54	0.31	D	Desired Value	Good
53	0.28	0.21	A,B,D	Too Hard	Fair
54	0.75	0.16	B	Too Easy	Poor
55	0.56	0.53	A	Desired Value	Excellent
Average	0.79	0.22			

APPENDIX H

AGGREGATED EXAM STATISTICS

Overall Exam Statistics			
n = 370			
KR-20		Average Item Difficulty	Average Item PBI
Exam 1	0.46	0.76	0.17
Exam 2*	N/A	0.75	* - 0.12
Exam 3*	N/A	0.89	* - 0.33
Exam 4	0.55	0.83	0.20
Exam 5	0.59	0.82	0.20
Exam 6	0.61	0.76	0.20
Exam 7	0.63	0.79	0.22
Average	0.57	0.80	0.20

*not included in KR-20 average

*0.07 if included in average.

Difficulty Index (p)		No.	Percent
≥ 0.70	Too Easy	279	75.4
≥ 0.30 to ≤ 0.69	Desired Value	86	23.2
< 0.29	Too Hard	5	1.3
Point Biserial Index (PBI)		No.	Percent
≥ 0.4	Excellent	37	10.0
≥ 0.3 to ≤ 0.39	Good	53	14.3
≥ 0.2 to ≤ 0.29	Fair	87	23.5
≤ 0.19	Poor	193	52.1

Items with the desired level of difficulty and ...

	No.	Percent
an excellent point biserial	15	4.0
a good point biserial	21	5.6
Total	36	

Distribution of Correct Answers

	A	B	C	D	SATA
Answer	82	95	82	67	44
Percent	22.1	25.6	22.1	18.1	11.8

Selected Item Writing Flaws

	No.	Percent
“Of the following”	33	8.9
Negatively worded	2	0.5
Misspelled words	26	7.0
Total	61	16.4

APPENDIX I

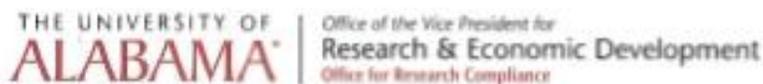
ATI CUSTOM ASSESSMENT BUILDER

The screenshot displays the ATI Custom Assessment Builder interface. At the top, it shows the 'Custom Assessment Builder' title and navigation tabs for 'ASSESSMENTS' and 'QUESTION BANKS'. A 'demo' status is shown with details like 'Status: In Progress', 'Program Type: RN', and 'Assessment Type: Proctored'. A 'RETURN TO FACULTY HOME PAGE' button is in the top right. Below this, there are buttons for 'SAVE & CONTINUE LATER' and 'FINISH'. A progress indicator shows 'Step 3 of 3'. A 'MY ASSESSMENT SUMMARY' section includes 'Total Questions', 'Blueprint', and 'Assessment Preview' icons. The main area is titled 'Choose Questions Below' and features a 'Select Question Bank' dropdown set to 'ATI RN Bank'. A 'Selected Filters' bar shows active filters: 'Acute', 'Cardiac Output and Tissue Perfusion', 'Baccalaureate Generalist Nursing Practice', and 'Maternal Newborn'. Below the filters, it states 'Displaying 5 of 5 Available Questions' and provides 'View Question Usage' and 'View Full Question' links for two sample questions. A 'MY ASSESSMENT SUMMARY' panel shows a 'Blueprint' icon. To the right, an 'Outcomes Acute/Chronic' panel lists selected filters: 'Acute', 'Cardiac Output and Tissue Perfusion', 'Baccalaureate Generalist Nursing Prac', and 'Maternal Newborn'. Below that, a 'Question Types' panel lists options: 'Drag and Drop', 'Fill In The Blank Numeric', 'Hot Spot', 'Multiple Choice', and 'Multiple Response'. A 'REFERENCES' section at the bottom lists sources like QSEN, BSN Essentials, and NLN Competencies. Green arrows highlight the flow from filters to question selection and then to the summary panels.

ATI Custom Assessment Builder. (2020). Used with permission. ATI Technologies

APPENDIX J

IRB APPROVAL



February 18, 2019

Carla Crider
College of Education
Box 870302

Re: IRB # EX-19-CM-017: "From Novice to Expert to Novice Again: A Descriptive Look at Novice Nurse Educators' First Year Testing Experience"

Dear Ms. Crider,

The University of Alabama Institutional Review Board has granted approval for your proposed research. Your application has been given exempt approval according to 45 CFR part 46. Approval has been given under exempt review category 1 as outlined below:

(1) Research conducted in established or commonly accepted educational settings, involving normal educational practices such as: (i) research on regular and special education instructional strategies; or (ii) research on the effectiveness of, or the comparison among, instructional techniques, curricula, or classroom management methods.

The approval for your application will lapse on February 17, 2020. If your research will continue beyond this date, please submit the continuing review to the IRB as required by University policy before the lapse. Please note, any modifications made in research design, methodology, or procedures must be submitted to and approved by the IRB before implementation. Please submit a final report form when the study is complete.

Please use reproductions of the IRB-approved informed consent form to obtain consent from your participants.

Sincerely,

cc: Dr. Becky Atkinson

APPENDIX K

IRB RENEWAL



The University of Alabama
801 University Blvd
Tuscaloosa AL
TEL: 205 348 6457
FAX:

NOTICE OF APPROVAL FOR HUMAN RESEARCH

DATE: February 07, 2020
TO: Crider, Carla, College of Education
Atkinson, Becky, Educational Leadership, Policy and Technology Studies, Tomlinson, Stephen, Educational Leadership, Policy and Technology Studies (ELPTS)
FROM: Graham, Jeanelle, MPH, Research Compliance Specialist, NM Expedited
PROTOCOL TITLE: FROM NOVICE TO EXPERT TO NOVICE AGAIN: A DESCRIPTIVE LOOK AT NOVICE NURSE EDUCATORS# FIRST YEAR TESTING EXPERIENCE
FUNDING SOURCE: NONE
PROTOCOL NUMBER: 18-10-1609

The Institutional Review Board (IRB) for the protection of human subjects has reviewed the protocol entitled: FROM NOVICE TO EXPERT TO NOVICE AGAIN: A DESCRIPTIVE LOOK AT NOVICE NURSE EDUCATORS# FIRST YEAR TESTING EXPERIENCE. The project has been approved for the procedures and subjects described in the protocol. This protocol must be reviewed for renewal on a yearly basis for as long as the research remains active. Should the protocol not be renewed before expiration, all activities must cease until the protocol has been re-reviewed.

If approval did not accompany a proposal when it was submitted to a sponsor, it is the PI's responsibility to provide the sponsor with the approval notice.

This approval is issued under University of Alabama's Federal Wide Assurance 00004939 with the Office for Human Research Protections (OHRP). If you have any questions regarding your obligations under Committee's Assurance, please do not hesitate to contact us.

Please direct any questions about the IRB's actions on this project to:

Graham, Jeanelle

Graham, Jeanelle

Review Type: EXEMPT
IRB Number: 03

APPENDIX L

INFORMED CONSENT

Study title: From Novice to Expert to Novice Again: A Descriptive Look at Nurse Educators'

First Year Testing Experience

Investigator: Carla Crider, MSN, RNC, C-EFM

Doctoral Candidate in Educational Leadership at the University of Alabama

Supervisor: Dr. Becky Atkinson,

Associate Professor in the College of Educational at the University of Alabama.

- **What is this study about? What is the investigator trying to learn?**
 - The investigator wants to explore the experience of novice nurse educators as they learn to create, administer and analyze exams during their first year of teaching.
- **Why is this study important or useful?**
 - This knowledge is important because there is a nursing shortage, a nursing faculty shortage, and the need for qualified faculty. The study results may support an initiative to create a nationwide academic standard of care for nurse educators.
- **Why have I been asked to be in this study?**
 - You have been asked to be in this study because you are a novice nurse educator teaching in an associate degree nursing program.
- **How many people will be in this study?**
 - The sample pool of possible participants currently includes 65 novice nurse educators.
- **What will I be asked to do in this study?**
 - If you qualify and agree to participate in this study, I would ask you to meet with me for 1-2 hour interview discussing your experience. The interview will be audio taped. I will also ask you to review the transcripts of the interview for clarity and validity. This may require a second shorter follow-up interview. Finally, you will be asked to share copies of any unit or final exams written by you including the item analysis and student comments (with identifying student and institution information removed) if available. We may or may not discuss the analysis of these documents during the course of the interview.
- **How much time will I spend being in this study?**
 - The initial interview should take approximately two hours. A follow-up interview, if needed, will take less than one hour.
- **Will being in this study cost me anything?**
 - The only cost to you from this study is your time.
- **Will I be compensated for being in this study?**
 - Upon completion of the interview, each participant will be given a set of nurse educator pedagogical tools as a token of appreciation. In addition, each participant will be offered the aggregated exam review information as a way to return the favor of their time.
- **What are the risks (dangers or harms) to me if I am in this study?**
 - The study has the potential to induce anxiety and stress related to the interview topic. The risks may vary from person to person. However, these risks are minimal.

- **What are the benefits (good things) of participating in this study?**
 - There are no direct benefits to you. You will, however, be allowed to express your ideas and concerns about your experience as a novice nurse educator. This may not directly benefit you, but it may help in developing guidelines for professional development for novice nurse educators.
- **How will my privacy be protected?**
 - The initial invitation to participants was disseminated via email to your dean or director who then forwarded the invitation to you. Your dean/director will not know of your decision to participate nor will I inform him/her of such.
 - The interview will be conducted privately with only the researcher present.
 - During the interview, you may decline to answer any question that makes you feel uncomfortable, and you may share only as much information as you are comfortable sharing.
- **How will my confidentiality be protected?**
 - The recording of our interview will be labeled with the date of our interview, not your name. A pseudonym will be used to protect your identity when reporting the results orally or in print.
 - Recordings will be deleted after transcription and the transcripts will be stored securely on a dedicated flash drive. All printed material will be digitally scanned to the dedicated flash drive. The flash drive will be maintained in a locked office within a key-card protected office suite for the duration of the project.
 - Upon conclusion of the project, the flash drive will be placed in a safe deposit box. The researcher will have sole access to this safe deposit box and will be retained for seven years as required by the University of Alabama. After seven years, the flash drive will be destroyed.
- **Will I be allowed to review the transcript?**
 - Once the initial first pass transcription review has been completed by the researcher, the participant will be sent a link and an invitation to perform an electronic second pass review, comment upon the transcript, and provide any needed corrections.
 - This electronic second pass review should take no more than one hour.
 - As noted above, the audio recordings will be permanently deleted from the Temi website following the electronic second pass review by the participant.
- **How will test integrity be protected?**
 - Once analyzed, all exams will be digitally scanned to the dedicated flash drive mentioned above.
 - The printed copy will be shredded by the researcher.
- **What are the alternatives to being in this study?**
 - The alternative to being in this study is not to participate.
- **What are my rights as a participant in this study?**
 - Your participation in this study is voluntary. There is no penalty for not participating. You may discontinue your participation and withdraw from the study at any time without penalty.
- **Whom do I call if I have questions or problems?**
 - If you have questions, concerns, or complaints about the study at any time during the study, please call the investigator, Carla Crider, at 817-694-6251 (mobile) or

contact via email at crcrider@crimson.ua.edu. You may also call my supervisor, Dr. Becky Atkinson at [205-348-0357](tel:205-348-0357) or contact at atkin014@bama.ua.edu

- If you have questions about your rights as a person in a research study, call Ms. Tanta Myles, the Research Compliance Officer of the University, at 205-348-8461 or toll-free at 1-877-820-3066.
- You may also ask questions, make suggestions, or file complaints and concerns through the IRB Outreach Website at <http://ovpred.ua.edu/research-compliance/prco/>. You may e-mail the Research Compliance Office at rscompliance@research.ua.edu.
- After you participate, you are encouraged to complete the survey for research participants that is online at the outreach website or you may ask the investigator for a copy of it and mail it to the University Office for Research Compliance, Box 870127, 358 Rose Administration Building, Tuscaloosa, AL 35487-0127.

Statement of Consent:

I have read the information described above and have received a copy of the information. I have asked questions I had regarding the research study and have received answers to my satisfaction. I am 21 years of age or older and voluntarily consent to participate in this study.

You have permission to audio record my interview.

I decline to be audio recorded for the interview.

Electronic Signature obtained in Qualtrics on _____ (Date)

_____	_____	_____	_____
Signature of Research Participant	Date	Signature of Researcher	Date

APPENDIX M

JESSIE'S SPRING 2019 EXAM 2 ORIGINAL VS RETAKE GRADES

Student No.	Original Result (Pass = 165)	Retake Result
1.	172	184
2.	124	172
3.	152	188
4.	184	204
5.	160	184
6.	148	124
7.	160	144
8.	140	132
9.	164	180
10.	156	164
11.	164	176
12.	156	152
13.	148	184
14.	144	164
15.	168	188
16.	176	156
17.	152	164
18.	180	172
19.	168	204
20.	160	180
21.	156	168
22.	168	192
23.	156	160
24.	168	160
25.	160	152
26.	156	160
27.	132	164
28.	152	140
29.	156	172
30.	160	164
31.	164	188
32.	172	168

APPENDIX N

VENDOR PERMISSIONS

Ed Eckenstein, CTO Intellistem Writer <ede@intellistemwriter.com>



Sun 6/21/2020 14:49

To: CRIDER, CARLA

Cc: Ruth Eckenstein, MSN, M.Ed, BSN <ruthe@intellistemwriter.com>

Hi Carla,

Sure we'd be happy for you to include a few cards. We just ask that you mark them as "Copyright Intellistem Writer® Corporation." How many are you thinking of including? We can get you some higher resolution images than you could get by scanning them if you like.

Would you like to include screen shots of our online product? It is launching the first week in July and we have several schools signed up.

Ruth says she'd love to have a copy of your dissertation.

We hope you are doing well.

Regards,
Ed

NurseTim Contact Form: Permission Inbox x

NurseTim Workshops <workshops@nursetim.com>
to me ▾

Jun 19, 2020, 4:19 PM

Good afternoon Carla,

Thank you for contacting us NurseTim!

You have been granted permission to use our picture!

Thanks for checking with us first!

Sincerely,

The NurseTim Team

NurseTim, Inc.

Voice/Fax 866.861.2896

Email - workshops@nursetim.com

Web - <http://nursetim.com>

facebook® - [NurseTim](#)

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