

THE CLINICAL INSTRUCTOR PROGRAM:  
IMPROVING SELF-EFFICACY FOR  
NURSE EDUCATORS

by

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## ABSTRACT

Clinical teaching is foundational to undergraduate nursing education. The purpose of this study is to determine whether the development and consequent introduction of an online program called the Clinical Instructor Program (CIP) is helpful in improving feelings of efficacy for nurse clinicians who have experience in clinical teaching or who are new to the role of clinical instructor. Toward this purpose, four research questions were addressed: feelings of self-efficacy before and after CIP participation, understanding of the clinical instructor role, knowledge of instructional content, and understanding of instructional strategies.

Thirty-five clinical nursing instructors, both experienced and novice took a pretest, the Self-Efficacy Toward Teaching Inventory (SETTI), to measure feelings of efficacy before program participation. Novice instructors had no prior teaching experience; experienced instructors had one year of experience. Participants responded to the same test items after completing the CIP. The CIP modules and SETTI were offered through a web-based system where participants could take the pretest, review the modular series, and respond to the posttest.

Both groups demonstrated significant improvement in self-efficacy and understanding of role, validating the CIP as a model for clinical instruction. Experienced instructors showed a more appreciable improvement than did novice instructors in the four areas of self-efficacy, role, understanding of content and understanding of strategies. Overall scores showed that the novice instructor scores improved 89% after CIP participation. The experienced instructors showed a greater improvement of 98% in feelings of efficacy following CIP participation. Although this data does not permit statistical measurement, findings suggest that the CIP has significant value

for the education of nurse educators. This claim clearly warrants further study. Further research is needed on how best to modify the CIP to facilitate mentoring, support, and foundational knowledge for the novice instructor.

## DEDICATION

This dissertation is dedicated to Deborah Ryan, a dear friend and mentor who provided the initial foundation for the concepts upon which the CIP modules were developed.

## LIST OF ABBREVIATIONS AND SYMBOLS

ANOVA	Analysis of Variance
CVI	Content Validity Index
CWID	Campus Wide Identification
SETTI	Self-Efficacy Toward Teaching Inventory
CIP	Clinical Instructor Program
df	Degrees of freedom
F	Means of the within groups variances
n	Number in the sample
p	Significance
r	Correlation
SD	Standard Deviation
<i>t</i>	Computed <i>t</i> test statistic value
%	Percentage
=	Equal to
$\alpha$	Level of Significance
<	Less than
>	Greater than
*	The mean difference is significant at the .05 level

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## CHAPTER I

### INTRODUCTION

Clinical instruction is a cornerstone of undergraduate nursing education, a component essential to preparation of students for the role of nurse. The clinical setting provides a practice area for students to apply learned classroom content to clinical practice. Suggestions for instructional methods and curricular content used for clinical education are extensively discussed in nursing literature; however, there is no clear guidance as to which of the proposed methods best address the needs for teaching in the hospital-based clinical learning environment (Buccieri, Pivko & Olzenak, 2013). Buccieri and colleagues stated that despite collaboration between academic theorists and clinical practitioners, there is not a well-regarded working model available that offers a program for clinical instruction. Therefore, a gap exists in the literature between the theoretical basis for practice in clinical education and clinical instruction (Buccieri et al., 2013).

Though there are differing forms of collaboration between academic classrooms and the clinical area, evidence concerning their effectiveness is scarce and inconclusive (Chan, Chan, & Liu, 2012; Dilworth, Higgins, Parker, Kelly, & Turner, 2013; Hall-Lord, Theander, & Athlin, 2013; Winstanley & White, 2000). Based on a review of literature that describes various models of clinical instruction, I have developed an online series of modules called the Clinical Instructor Program (CIP) with the intent of addressing this need. These modules comprise a course of study designed to educate experienced nurse clinicians for the role of clinical instructor. The purpose of this study was to determine whether the CIP effectively prepares nurse clinicians for the role

of clinical instructor as measured by their knowledge of clinical instructional content, understanding of their role in the clinical setting, pedagogic strategies, and assessment of self-efficacy as a clinical instructor.

### **The Problem**

Clinical instructors are the nursing professionals who teach students in a clinical or laboratory practice setting and, as such, are an integral part of nursing education. The role of the clinical instructor is to assist students with the integration of theoretical learning from the classroom and the application of this learning in clinical practice (Bolton, 2011; Viverais-Dresler & Kutschke, 2001). However, a critical shortage of clinical nursing faculty combined with university budget constraints limiting new faculty appointments has resulted in the hiring of nurse clinicians as part-time clinical instructors. These nurse clinicians may be excellent nurses, but have little or no teaching experience (DeYoung & Bliss, 1995; Little & Milliken, 2007). Additionally, many newly hired nurse clinicians may have full-time clinical practices further limiting their time for orientation to the role of clinical educator.

Clinical teaching requires that clinical instructors be competent educators as well as clinical nursing experts capable of assuming legal and ethical responsibility for student learning and for patient care (Robinson, 2009). While nurse clinicians may have a strong sense of sense of efficacy and competence in their area of practice, they may have little sense of self-efficacy as a clinical instructor or clinical teacher. Effective instruction in nursing calls for teachers who have both personal and teaching efficacy. In order to attain efficacy, the nurse educators need to have a clear understanding of the process of clinical education. Faculty development for both new and long-term clinical instructors increases satisfaction with the teaching role, enhancing retention (Robinson, 2009).

In addition to the need for education and development of their role, Chang and Pai (2006) explored job stressors among nurse clinical instructors. Though their sample was small (n=8), they found that deficient role preparedness and inadequate role support were two prominent themes that emerged. Several studies have shown that nursing programs must provide faculty development in the form of orientation and continued support programs to help develop the expert clinician to become an expert clinical instructor (Hewitt & Lewallen, 2010, Lewallen, Crane, Letvak, & Jones, 2003). New clinical instructors are often left to figure things out on their own having had a very informal orientation to clinical education (Peters & Boylston, 2006). As a result of this lack of instruction or education, a sense of role strain and conflict ensues causing valuable instructors to return to their clinical practice, avoiding clinical education.

Cangelosi, Crocker, and Sorrell (2009) stated that the present and critical shortage of nurses places stress on programs of nursing education and clinical agencies to identify “creative options for increasing the supply of nurse educators” with particular emphasis on those who can effectively teach vital clinical skills to future nurses (p. 367). Cangelosi et al. reported that while many clinicians indicate they would enjoy having opportunities to share their clinical expertise through the teaching role, they are offered little to no preparation the teaching role. Furthermore, they state that there is minimal research concerning preparation of the clinician for the role of clinical educator. Building on the novice to expert model (Benner, 1984), Cangelosi et al. the novice to expert approach suggested by Benner. They suggested that as the nurse clinician moves into the new role of nursing instructor, the tension and anxiety related to this role is like that of the novice nurse practicing in her new role; a nurse who is proficient in clinical practice is not necessarily proficient in teaching students in the clinical setting. The scarcity of research-based

methods for preparing nurse clinicians for the role of clinical educator, combined with the need for proficiency in clinical teaching provide rationale for development of the CIP.

The purpose of this study was to determine whether the CIP effectively prepares nurse clinicians for the role of clinical instructor as measured by their knowledge of clinical instructional content and the teaching role in the clinical setting, pedagogic strategies, and their assessment of self-efficacy as a clinical instructor. To this end, the following research questions guide this study: (1) Do nurse clinicians develop a stronger sense of self- efficacy concerning their ability as a clinical instructor following participation in the CIP? (2) Is the CIP effective in enhancing nurse clinicians' understanding of the role of clinical instructor? (3) Do nurse clinicians have a clear understanding of the course content? (4) Does the program help nurse clinicians develop an understanding of instructional strategies used in the clinical setting?

### **Personal and Professional Interest in the Study**

Having taught in both the classroom and in the clinical practice area for over 2 decades, I agree with Gaberson, Oermann, and Shellenbarger (2015), who stated that because nursing is a professional practice discipline, the ability of students to function well in the clinical setting is more important than classroom participation. This belief is based on the premise that learning activities provided in clinical practice situations offer real-life experiences and opportunities for transfer of knowledge to clinical settings.

During my years as a clinical instructor, I have enjoyed many successes, but have also suffered through situations which in retrospect and with additional education, I realize that I should have handled differently. These experiences fostered my interest in the development of the CIP, an accessible program of education for clinical teaching. Participation in the CIP will hopefully provide novice instructors with the education necessary for a positive first experience

in clinical teaching. Desired outcomes for new clinical instructors who have participated in the CIP include development of a sense of confidence in their ability for clinical teaching through a grounded knowledge of curricular content and pedagogic strategies. Additionally, encouragement of a sense of self-efficacy in the role of clinical instructor as he or she guides, supports, and stimulates a positive learning experience for the student is a desired outcome of the CIP. The ultimate measure of the program's success is improved student outcomes from the clinical experience. That will be a topic for future research.

### **Clinical Instructor Program**

The CIP includes a series of six online modules that provide instructional content and methods for clinical education. Each module addresses the content necessary for successful clinical instruction and lasts for less than 18 minutes. The modules are available in an online format and can be accessed asynchronously. The introductory module provides instructional content concerning the use of the online technology of the program. Each module is followed by two quiz questions that assess understanding of content.

Gaberson et al. (2015) recognized that clinical teaching is performed by faculty members who operate within a curriculum that is planned and offered in response to professional, societal, and educational expectations. The curriculum must also consider and respond to a healthcare environment that is in a state of constant change. Iwasiw, Goldenberg, and Androusyszyn (2009) stated that due to differing contexts for every nursing education program, each curriculum is unique, thus necessitating that the practice of clinical teaching will be different depending on the individual program. To this end, each curriculum must have a philosophy, a system of beliefs and values held by faculty within the practice discipline (Gaberson et al.). A philosophy guides and gives meaning and direction to practice, providing a basis for the goals of the educational

program (Iwasiw et al.). Content in Module One of the CIP identifies several philosophies for teaching in the clinical practice setting.

A central element of a philosophy for clinical practice models must focus on the needs of patients (Gaberson et al., 2015). This is evident in the American Association of Critical-Care Nurses Certification Corporation's Synergy Model for Patient Care (AACN, 2003) which aims at optimal patient care practice. The model comprises patient characteristics that also have the potential to serve as a guide for nursing staff education, having been used previously in staff development and preceptorship experiences. Characteristics included in the model are those of resiliency, vulnerability, stability, and complexity. Other characteristics include resource availability, participation in care and decision making, and predictability. This model was adopted by Green for matching teacher and learner characteristics for teaching in the clinical practice setting (Green, 2006). Components in Greens' model offer connections that are useful in matching preceptor and preceptee teaching and learning styles as closely as possible; they are connections necessary for a sense of synergy in the teaching-student relationship. Green applied this model to nursing education matching learner needs to nurse educator competencies.

Gaberson and colleagues argued that every clinical teacher has a philosophical approach to clinical teaching, often without realizing it. These beliefs determine how teachers understand their role and how they approach instruction. Of equal importance are their relationships with learners, clinical partners, and other staff members in the clinical setting, concepts identified in the Synergy Model for Patient Care (Green, 2006). As such, a teacher's philosophy influences his or her teaching methods and student learning, and how practice outcomes are evaluated (Gaberson et al., 2015). Aims, methods, and content of instruction explicit in Green's model are

consistent with Gaberson et al.'s philosophy. The philosophy that is discussed in Green's model is consistent with the philosophy of Gaberson et al. and is explicit in Module One of the CIP.

Module One asks that nursing instructors consider their assumptions about current instructional methods. Content in this module follows the approach suggested by Gaberson and colleagues (2015) offering a procedure from which nursing instructors can begin to reflect on and improve their philosophy of clinical teaching and education. Another philosophy that is foundational to teaching and included in Module One is from the book, "What the Best College Teachers Do" (Bain (2005).

Module Two begins with the synergy model and the importance of building a strong relationship between the instructor and student on day one of the clinical rotation (Green, 2006). Building on this foundation of establishment of trust, the remainder of the module provides content for the student orientation process. This day-long orientation is divided into four topic areas as noted in the orientation module (see Appendix A). The first part of the day involves "a getting acquainted session" following concepts identified in the synergy model. Learning needs are identified and team building occurs as each student is encouraged to share with the group a brief description of their previous clinical experience and goals for the current clinical rotation. This is followed by review of expectations of students in the clinical setting, description of the type of patients on the care unit, and policies and knowledge necessary in each area of specialty. The second part of the day includes review of a suggested plan of care or worksheet including expectations for pre-clinical preparation. The students will practice a mock assignment; this involves the student writing a simple plan of care with guidance by the clinical instructor. The third part of the orientation day involves hands-on experience with equipment that is commonly

used for patient care. The day ends with a demonstration and review of physical assessment done with the entire clinical group.

Content for Module Three (Curriculum/Course Overview: The Context for Clinical Teaching) discusses and identifies differences and similarities between the espoused curriculum and the curriculum that is actually in place (Gaberson et al., 2015). Suggestions for merging the classroom material with the clinical learning environment are offered as new clinicians are encouraged to review content identified in the course syllabus and posted lecture material. The goal of this module is to teach clinical instructors how to approach clinical instruction in different courses, (i.e. medical-surgical nursing, pediatric nursing, or basic skills) with emphasis of what should be taught in the cognitive, psychomotor, and affective domains. Strategies for application of concepts from the three domains are emphasized.

Module Four focuses on helpful strategies involved in selecting patients for the clinical assignment. Suggestions for selection of patients for the assignment, strategies for working with the charge nurse in patient selection for the assignment, and considerations of student learning needs are identified. Emphasis is placed on consideration of patient care needs along with suggestions for keeping a database of students' assignments. Posting of assignments and suggested information for the student plan of care prior to the clinical day is identified. Finally, methods for formulating a "plan B" concerning an unexpected patient census change are offered. (Stokes & Kost, 2012)

Module Five involves clinical teaching strategies with a suggested format for the clinical conference. Communication via SBAR (Situation, Background, Assessment, and Recommendation) is reviewed. SBAR is demonstrated both as a communication modality and as a tool for presentation of the patient in clinical conference (National Health Service, 2006). Role

modeling of a clinical conference is also discussed in this module. A variety of teaching strategies are suggested including use of the clinical conference, asking questions, teaching with reflection, and using emotional intelligence (see Appendix A). This module also highlights components of teaching clinical reasoning, judgment and critical thinking. (Benner, Leonard, Sutphen, & Day 2010)

Finally, Module Six involves evaluation of clinical performance and includes content necessary for both the formative and summative evaluation process. Strategies for giving effective feedback are included. This module also provides suggested models for giving the summative evaluation. Useful strategies are identified for working with the student who is not successful in the clinical setting (Gaberson et al., 2015).

In summary, the CIP is based on the elements of the philosophy developed by Gaberson et al. (2015). This philosophy, with the synergy model (Green, 2006), and the approach to education identified by Bain (2005) provide a strong foundation for the CIP. Effective instruction in nursing calls for teachers who have both personal and teaching efficacy; in order to attain efficacy, the nurse educators need to have a clear understanding of the process of clinical education (Robinson, 2009). The CIP has been developed to meet the need for an evidence based program for clinical education.

## CHAPTER II

### REVIEW OF THE LITERATURE

The development of the CIP draws upon research that reviews proposed models of clinical education. Programs discussed in this review of the literature identify models of clinical education based on research and also review teaching strategies useful in the clinical setting. Application of these strategies supports the CIP with curricula and pedagogy to enhance clinical instruction. Additionally, these strategies underscore the qualities that increase the nurse clinician's ability to teach effectively. Finally, tenets supporting the concept of self-efficacy, the measurement of success of the CIP, are reviewed.

#### **Models of Clinical Instruction**

The concept of clinical education and consequent clinical instruction with suggested models for clinical teaching is extensively discussed in nursing literature, but clear guidance as to which model best fits the hospital-based clinical learning environment has yet to be identified and supported with evidence as to efficacy. In this review of the literature, many innovative practice models and techniques for clinical education of undergraduate nursing students are described. However, the best model for clinical instruction has not been identified (Buccieri, Pivko & Olzeniak, 2013). Consequently, many authors state that there is a theory-practice gap between classroom education and clinical practice (Baxter, 2007; Dilworth, et al., 2013; White & Winstanley, 2010).

Franklin (2013), Brunero and Stein-Parbury (2008), and Dilworth et al., (2013) proposed five models of clinical instruction. The first is the preceptor model; it incorporates a one-to-one

method of instruction with the student assigned to one registered nurse employed by the clinical partner. The student works alongside the nurse with the nurse functioning in a supervisory role as they share the care of patients assigned to the nurse for the day. The second model of clinical instruction is the facilitation-preceptor model. This model combines the roles of the preceptor and the clinical instructor; this practice of “buddying” entails a student working with both the clinical instructor and the preceptor where a student is allocated (otherwise labeled as “buddied”) to a registered nurse for preceptoring. The clinical instructor acts as a facilitator to this system and is responsible for supervision of at least eight students in this role. A third model of instruction is the dedicated education unit where the hospital-based preceptor works with clinical faculty members from the educational institution. The student is assigned to a nurse on the patient care unit with the clinical instructor serving in a support role only; he or she will not be involved in direct guidance of the student. The fourth model involves a clinical instructor employed by the clinical partner, university, or both, who directly instructs six to eight students. The CIP has been developed to address the educational needs for the instructor described in the fourth model. The fifth model is the mentor model; in this model, clinical guidance is more indirect, involving a longer term relationship between the student and the registered nurse.

According to the literature, undergraduate nursing students prefer the clinical instructor model (Croxon & Maginnis, 2008; Lindgren & Athlin, 2010; Walker, Dwyer, Moxham, Braodbent, & Sander, 2012). As Croxon and Maginnis explained, students prefer the greater one-on-one time with their clinical instructor. Additionally, students see the instructor’s knowledge and experience as essential to their clinical education. Even so, the efficacy of the clinical instructor model is not supported by research (Croxon & Maginnis; Hall-Lord et al., 2013). One very strong part of this model is the creation of a professionally enriching forum for the sharing

of knowledge. This model of instruction facilitates development of an understanding of how the student learns to practice nursing (Dilworth et al., 2013). The CIP provides a model of clinical education for the clinical instructor model. If research from the CIP is shown to improve self-efficacy in teaching as well as knowledge of role, teaching strategy, and pedagogy, this study will further support the notion that the clinical instructor model is preferred for clinical education.

In addition to the models discussed above, there are two other models of clinical education that offer concepts critical to clinical education. Hall-Lord et al.(2013), Winstanley and White (2000), and Baxter (2007) discussed the Communication, Collaboration, Application, Reflection, Evaluation or CCARE model of clinical supervision; concepts in this model are considered essential to clinical instruction. Baxter (2007) suggested that the relational aspects in the CCARE model between student and instructor bridge the gap between patient, preceptor, faculty member, and nursing student. Winstanley and White offered a similar model with key features of growth, support, and trust in clinical supervision. Hall-Lord, along with Buccieri et al. (2013), emphasized that essential elements of clinical instruction include teaching and learning, relationships, professional development, skills, and individual reflection. Though the caring models are discussed extensively, none are supported with data as to efficacy of their use. Concepts from these two models are integral to the synergy model used as a basis for the philosophy discussed in Modules One and Two of the CIP and based on the work of both Green (2006) and Bain (2005).

Dilworth et al. (2013) offered a review of current approaches and challenges to clinical education. Along with Franklin (2013), these authors identified two major themes that have arisen as problematic in defining an ideal model for clinical education. These themes involve

complexity and diversity of contexts in which education is implemented, and confusion about the role and structure of the education. Though each author supported the role of clinical education as instrumental in bridging the theory-practice gap, there is a lack of consideration for outcome measures, supporting the notion that there are gaps in the literature concerning approaches to clinical education (Dilworth et al 2013; Franklin, 2013; & Hall-Lord, 2013).

### **Instructional Content, Quality, and Effects on Student Development**

The quality of instruction as well as knowledge of content is essential for clinical instruction. Research concerning professional competence, quality of instruction, and the relationship of emotional intelligence to clinical teaching are considered in this section. The best teachers are those who are bright, well educated, and are “smart enough and thoughtful enough to figure out the nuances of teaching in the process of doing it” (Kunter, Klusmann, Baumert, Richter, Voss, & Hachfeld, 2013, p. 35). Though Kunter et al. referred specifically to the teaching of mathematics, they also stated that all disciplines require similar teaching competencies. In addition to the qualities identified above by Kunter et al., the concept of emotional intelligence was identified by Allen, Ploeg, and Kaasalainen, (2012) as integral to successful teaching, particularly in clinical education.

Emotional intelligence includes the ability to process information, to practice experiential learning, to adapt to the environment, and to reason (Allen et al., 2012, Bulmer-Smith, Profetto-McGrath, & Cummings, 2009). Bulmer-Smith et al. and Freshwater and Stickley (2004) found that the ability to deal with emotion and sensitivity is a core nursing skill. Allen et al. concurred, stating that a high level of emotional competence is essential for faculty members to be effective in clinical teaching. The BarOn Emotional Quotient Inventory and the Nursing Clinical Teaching Effectiveness Inventory (NCTEI) identify that flexibility and the ability to communicate and to

express concern for the student are qualities of emotionally intelligent nurse leaders (Allen et al.). In addition, nursing faculty members must be able to understand their own emotions as well as the impact of their behaviors on students. The teacher's emotions greatly affect the student's ability to learn (Tabatabaei, Jashani, Mataji, & Afsar, 2013). Furthermore, Tabatabaei et al. stated that an emotionally and socially intelligent instructor maintains a more optimal learning environment. The ability to use emotional intelligence is especially pertinent in the emotionally charged clinical setting. The study by Tabatabaei et al. found a significant correlation between emotional intelligence and self-efficacy. Additional findings from their study include that emotional intelligence can be predicted by age, sex, education, marital status, and self-efficacy. The study also found a significant positive relationship between self-efficacy and level of education. This supports the notion that clinical instructors should have an advanced practice degree. Based on my years of clinical experience and this review of the literature, I suggest that the three qualities noted above (emotional intelligence, quality of instruction, and relationship of emotional intelligence to clinical teaching) are key factors as the nurse clinician is considered for the role of clinical educator.

A study conducted by Arghode (2013) also reviewed the impact that the teacher's emotional and social intelligence has on students' knowledge and skill enhancement. Arghode identified strategies that instructors may use to develop competency in both educational and corporate settings. An attitude of care and nurture, combined with communication of an understanding of the student perspective, helped to form emotional connections between the student and instructor (Arghode). Warm interactions between the instructor and student were found to forge a strong and engaging bond providing a relationship that is vital to improved student learning. Cherniss (2010) defined emotional and social intelligence as an ability to be

considerate of the time and manner in expressing thoughts to students as well as exercising restraint when giving feedback.

In addition to emotional intelligence, additional qualities contributing to successful teaching were discussed by Hurley (2013). Hurley provided a framework of emotional competencies adapted from the Consortium for Research on Emotional Intelligence in Organizations (1998). This framework identifies the following personal competencies. The first competency is that of recognition, which involves emotional and social self-awareness and self-confidence. Necessary attributes of this competency include empathy, an orientation of service, and organizational awareness. These attributes are included in Modules One and Two of the CIP.

The second concept of regulation involves self-management; competencies in this section include self-control, trustworthiness, conscientiousness, adaptability, achievement drive and initiative. Relationship management is a part of the regulation section and includes such competencies as desiring to promote development in others. Relationship management also encompasses an understanding of the impact and influence that an instructor might have with a student as well as the importance of communication and is incorporated into module one of the CIP.

Another competency identified under regulation includes conflict management which is an essential in the Bachelor of Science in Nursing (BSN) Essentials (AACN, 2009) and an element included in evaluation of the undergraduate student (Odell & Barta, 2011). Additional concepts in this framework include leadership, acting as a change agent, building bonds, teamwork, and collaboration. These concepts are inherent in the Green's synergy model (2006) adapted for use as a basis for one's philosophy in teaching. Again, this model is identified in Module One of the CIP.

Hou, Zhu, and Zhang (2011) developed a scale of 31 indicators of core competencies necessary for competent clinical education; included in these competencies is the concept of teaching with emotional intelligence. Although students and faculty members in this study evaluated clinical instructor competence differently, both groups identified leadership ability, problem-solving ability, educational intelligence, general teaching ability, and clinical nursing skills important aspects for clinical competence. Problems associated with the study included the non-random sampling of universities and lack of diversity in study participants. Despite these issues, this research is important to development of a model of clinical instruction; the attributes mentioned are ones that are vital to successful clinical instruction (Hou, et al.).

Additionally, a competent clinical instructor must have a thorough knowledge of pathophysiology or related content knowledge (Zimmerman, 2002). Material taught in the clinical setting should be abundant and challenging, supporting the student's ability to prioritize and to think critically in the clinical setting (Zimmermann). The material ideally reflects classroom content; however, if this is not possible due to the constraints of the proposed syllabus or classroom time, then the content must be taught in the clinical practice setting (Gaberson et al., 2015).

Content knowledge is also an essential component of the clinical conference. The clinical conference is one of the teaching strategies discussed in Module Five of the CIP. (Gaberson et al, 2015). Students are encouraged to present their patients using the Situation, Background, Assessment, Recommendation (SBAR) format (Thomas, Bertram & Johnson, 2009); this concept of communication is also taught as a teaching strategy. Using these strategies, they will identify problems, assessment, and recommendations for management of the patient. Using the synergy model developed by Green (2006) and the concepts for teaching identified by Bain

(2005) the instructor must be able to assist the student in identifying and discussing problems with proposed solutions in a manner that builds upon the student knowledge base and confidence. Again, the concepts involved in the discussion of emotional intelligence along with the work of Hurley (2013) support use of this material in the CIP.

There are three techniques of reflection that improve clinical teaching (Brookfield, 2006; Palmer 1998; Pinsky & Irby, 1997). These include reflection in planning clinical activities (anticipatory reflection), reflection while teaching (reflection-in-action) and evaluation of teaching (reflection -on-action). As the clinical instructor plans for the clinical teaching day, she or he visualizes the clinical setting, identifies available resources such as staff and personnel, and assesses capabilities of students in the clinical setting. Patient needs are of primary importance as requirements of the assignment are considered in the planning process. Reflection-in-action requires that the clinical instructor assess student response to teaching approaches. If an approach is not working for any reason, a new plan or assignment should be initiated. Reflecting-on-action occurs when the clinical instructor reviews experiences that occurred during the clinical day, and asks whether the experiences were satisfactory, and what improvement may be needed for future clinical days.

The final concept is that of integrative teaching (Benner, 2010). Students learn to integrate classroom knowledge, skilled “know-how,” and ethical decision-making in clinical situations (p. 158). Through integration of classroom and the clinical experience, students begin to understand the clinical situation sufficiently to draw on relevant knowledge, recognize the nature of a problem, and use clinical judgment to best serve their patients. The student learns to ask what the patient is experiencing, what are nursing concerns, and what information is needed for an appropriate response to the problem.

## **Techniques for Engagement of Students in the Clinical Learning Environment: Teaching Strategies**

The previous section of this paper identified areas of content necessary for success in clinical teaching. Along with knowledge of content, clinical instructors must use teaching techniques and strategies that engage students. Given the context of the program where the nurse educator is teaching, this implies the effective use of technology and online teaching, simulation, gaming, and instruction through art, music, and film. Additional techniques that have proven to foster engagement include the use of narration and reflection through journaling and case study (Davis, 2013).

Davis (2013) and Sanders and Welk (2005) recognized the value of modeling communication techniques in the clinical arena. This teaching strategy enhances the student's ability to operate effectively, efficiently, and with more confidence in clinical practice situations. These authors applied sociocultural development theory to clinical instruction; the theory promotes interaction between the student and others in the clinical setting. Interaction in the form of modeling, feedback, questioning, and scaffolding enhances student learning (Sanders & Welk).

Chan et al. (2012) and Austria, Baraki, and Doig (2013) discussed collaborative learning between the clinical instructor and the student through the use of group interviews. These interviews allow students to respond to questions concerning classroom material before and after their clinical experience, allowing integration of theory and practice (Chan et al.). This study provides a basis for developing the need for the clinical instructor to have a strong understanding of classroom curriculum in order to integrate this content into the clinical setting. Strategies for assisting the clinical instructor to integrate classroom curriculum and the clinical practice setting are presented in Module Three and are based on the research of Gaberson et al. (2015) Austria et

al. (2013) suggested the use of student dyads in the clinical setting; this concept entails two students working together while learning to provide patient care. Using dyadic care in clinical instruction fosters interdependence and face-to-face interaction as well as individual accountability. Austria et al. analyzed individual patient transcripts, determining patient response to the dyadic approach to teaching. Additionally, individual interviews were held with each student. Although the sample size was small, the students identified positive outcomes, including feeling supported, a sense of decreased anxiety, increased efficiency, and increased confidence with tasks (Austria et al).

The use of nurse dyads encourages professional relationships between students during clinical experiences, improved transition into practice, improved accountability, and increased self-confidence in the novice nurse (Austria et al., 2013; Baxter, 2007; Ruth-Sahd, 2011; White & Winstanley, 2010). Both Chan et al. (2011) and Austria et al. suggested that significant learning occurs as a result of collaborative processes between students and instructors.

Valdez, de Guzman, and Escobar-Chua (2013) discussed the use of scaffolding in preparing student nurses for the dynamics of clinical practice. This technique acknowledges that the student might arrive at the clinical setting with some theoretical knowledge (curricular content), but may not have mastered the skill in the practice area of clinical lab or simulation. Valdes et al. stated that scaffolding is a method of reframing knowledge within both the theoretical and practical contexts of tasks. Reframing of knowledge enables the clinical teacher to support students as they develop new knowledge and skills. Through this technique, the instructor employs a fading approach as the student is offered initial support in the task coupled with a gradual withdrawing of this support as the student becomes competent and independent (Valdez et al., 2013). Dickieson, Carter and Walsh (2008) stated that while the use of scaffolding

is generally employed in clinical teaching, its success depends on the clinical instructor's ability to provide support during the learning experience.

Phillips and Vinten (2010) also used the technique of guiding students with motivation and support through scaffolding as they work toward reaching their learning potential; a gradual reduction of this guidance is based on the individual student's learning needs. Innovation in this study was defined as embracement of socio-cultural theory; the role of the nurse educator involves motivating and supporting the student in a mutual process of goal achievement. Socio-culturally based teaching strategies include role modeling, coaching, and provision of guidance in supporting the student learner; removal of support occurs as competence is displayed.

Questioning and support for responses to questioning, encouragement of student articulation of reasoning, and problem solving processes are a part of the Philips and Vinten model (2010). Fostering of student reflection and self-awareness, with constructive feedback and positive reinforcement also are an integral part of the Phillips and Vinten model, techniques that are key to the innovative teaching offered in the CIP.

Another innovative method of instruction is that of a case-method approach to care (Nielsen, Noone, Voss, & Mathews (2013). Through the use of case studies, skill-based activities are introduced to support the student at varying stages of clinical competence. Oermann (2004) discussed the use of short cases within lecture as a valuable method of helping students integrate and apply clinical concepts to simulated learning. The case study method is used in the post-clinical conference suggested in the CIP to assist students in applying concepts and knowledge learned in the classroom to the clinical setting. Each student is asked to present his or her patient from the clinical learning day in SBAR format, encouraging critical thinking and prioritization of care needs.

Marchigiano, Eduljee, and Harvey (2011) discussed the use of journaling to assist students in the development of critical thinking skills. In this study, students used seven thinking skills for nursing care. The thinking skills include analysis of patient information, including lab reports, diagnostic tests, and physical assessment. Connections between pathophysiology of a disease state and resulting symptoms allow the student to determine relevance in prioritization of patient data. Students are encouraged to select appropriate interventions for physiologic problems and articulate evidence-based rationale for use of the intervention. Evaluation of outcomes concluded the exercise in critical thinking. Nursing instructors are encouraged to use this framework for clinical conference presentations as suggested in the CIP.

Simpson and Courtney (2002) also discussed the necessity of critical thinking in order to provide effective patient care. In their study, they delineated the difference between critical thinking and clinical decision-making. Clinical decision-making is the process of assessment of actions, evaluation, and judgment-making that contributes to achievement of a desired outcome. Decision-making involves cognitive knowledge and experiential knowledge; critical thinking skills are used during the clinical decision-making process, supporting clinical decision-making (Simpson & Courtney).

Other teaching strategies include modeling of communication strategies; modeling demonstrated by the clinical instructor is an important component for the novice student in the clinical setting (Davis et al., 2013). Though communication strategies are a significant part of many nursing curricula, actual modeling in the clinical setting is essential for the student who does not naturally feel comfortable in this role. The group interview discussed by Chan and colleagues (2011) is a communication strategy tied to the clinical conference discussed in Module Five of the CIP.

Dyadic teaching is another strategy useful for promoting learning in the clinical setting (Austria et al., 2013; Baxter, 2007; Rugh-Sahd, 2011; White & Winstanley, 2010). This experience can promote a sense of confidence as students learn from one another and work together while caring for one or more patients. However, learning of a skill may be lessened by the sharing of that skill experience with another student. An advantage to this type of learning includes that as one student masters a skill, he or she may teach another student the same skill. In this way, scaffolding occurs throughout the clinical day, another technique that is useful as a teaching strategy (Valdez et al, 2013).

The essential component of reflection with constructive feedback discussed by Philips and Vinten (2010) should be emphasized in the clinical conference. Case studies are suggested as a method for teaching by example; this technique is also used in Module Five (Nielsen et al, 2013). Journaling along with use of the case study is a suggested method of reflection.

### **Teaching the Clinical Instructor**

Cook (2009) discussed that professionals learn through their everyday practice; she equates this learning as non-formal learning, a concept not fully understood in the development of clinical educators. Though her study focused on novice teachers who teach medical undergraduates, principles found in her study are valuable in clinical education for nurses. Practice points in Cook's work include that non-formal learning is significant to the development of novice teachers. Specifically, these techniques involve learning the principles, approaches, and practical skills of teaching. Non-formal learning can be maximized through opportunities to observe, be observed, and to receive feedback based upon knowledge of each person's needs and requirements of their teaching role. Cook states that this learning also takes place as an outcome of experience and reflection.

Chen, Moe, Razack, and Yu (2014) discussed challenges related to nursing education with adult learners. A strong attribute in their study is discussion of principles of adult learning or andragogy. Andragogy requires that educators draw scientific knowledge from theories and research to teach knowledge and skills. According to Bastable (2008), characteristics of adult learners include autonomy, self-direction, and intrinsic motivation. Additionally, adults use personal experiences for critical analysis and decision making. Teaching strategies for use with the adult learner include a problem-centered focus that draws on meaningful experiences. Focus for the adult learner is on immediacy of application and active participation in the learning experience. Adult learners set their own pace and are self-directed, though they recognize the importance of social roles; the CIP is offered online and asynchronously incorporating these valuable principles throughout all modules.

### **Teaching the Clinical Instructor: Online Learning**

The CIP is offered in an online format; rationale for use of this technology and strategies for successful implementation of an online program are reviewed in this section. On-going nursing shortages, decreasing numbers of full-time nursing faculty members, and the consequent hiring of adjunct faculty members who work very part-time in education, underscore the need for efficient, effective nurse educator programs. Bonnel, Starling, Wambach, and Tarnow (2003) and Bonnel, Wambach, and Connors (2005) discussed aspects of a web-based nurse educator certificate program. Through the use of multiple interactive strategies within a set of modules, a variety of techniques offered through the online modality were shared in this study. These include the use of quizzes and case study, dialogue, and the importance of interaction between student and instructor. The CIP is offered online with quizzes offered at the conclusion of each module (see Appendix L).

Robinia and Anderson (2010) also examined variables affecting nurse faculty member self-efficacy levels with participation in online teaching. Their study reviewed self-efficacy perceptions of online teaching, encouraging student engagement, online instructional strategies, and classroom management. Findings from the study included that online teaching efficacy correlates positively with teaching efficacy of nursing faculty, a finding that is a hoped for outcome of the CIP. Forbes, Hickey and White (2010) discussed development needs of adjunct faculty who need orientation to the role of clinical educator. They include both mentoring and orientation to the role as key elements for retention and job satisfaction.

Peters and Boylston (2006) described a program to assist nursing adjunct faculty members with the transition into their teaching role; a major aspect of their program is a very comprehensive instructor orientation; these are key elements in the CIP modules. Peters and Bolyston suggested the need for streamlining a program because adjunct faculty members have limited time to devote to orientation programs due to full-time work commitments; this again, is a key element in the development of the CIP. Pierangeli (2006) developed a handbook and reference manual for clinical faculty members with topics such as pre-clinical conference and post-clinical conference teaching, student clinical log requirements, and evaluation of clinical skills. Duffy, Stuart, and Smith (2008) and Peters and Boylston implemented a Web CT-based repository for delivery of information to adjunct faculty members. A handbook of the printed materials offered in each module is available for participants in the CIP.

Roberts, Chrisman, and Flowers (2013) interviewed 21 adjunct clinical faculty members who described their needs in preparation for their new role as clinical instructor. These needs included the components of orientation, support, and connection as necessary elements for transitioning from the role of nurse clinician to that of clinical faculty member. Acquisition of

educational skills is included as role components in the CIP modules. Orientation to the role of clinical nurse educator is a thread that is interwoven throughout all six modules of the CIP.

Baker (2010) and Peters and Boylston (2006) discussed development of nurse educator orientation programs. They emphasized the value of preparation, socialization, and mentoring of nurse educators for academic roles to increase job satisfaction and retention. Although their program included classroom teaching, the importance of clinical learning experiences was an integral part of the program. As stated in the introduction to this paper in Chapter I, clinical practice is an integral part of nursing education. Also emphasized throughout the paper, is the shortage of clinical nurse educators. Lack of knowledge and burnout contribute heavily to this problem, thus supporting the need for nurse educator orientation programs.

Additional areas of clinical instruction include the selection of clinical learning experiences, facilitation of clinical pre-clinical and post-clinical conferences, student learning in the clinical setting, and supervision of student performance of skill competencies (Peters & Boylston, 2006). Feedback and evaluation of students about their clinical performance are key components of the program. Finally, strategies that assist in student learning, along with the handling of difficult situations in both the classroom and clinical setting, are identified as necessary components of the clinical learning experience.

Adams and Dority (2005) stated that the use of adjunct faculty members provides universities with flexibility according to variations in student enrollment. They added that for the adjunct faculty member to be successful, the university must provide a well-organized and reliable program of mentoring and education. The program must have clearly identified performance expectations, effective communication, support, and training for successful teaching outcomes.

A proposed model developed by Brannagan and Oriol (2014) suggested that a clear definition of job responsibilities and expectations is the first step toward mastery of teaching concepts for adjunct faculty. Role definitions should include responsibilities of full-time faculty members as well as those of adjunct faculty members. Brannagan and Oriol also described an orientation to online teaching that is required as a condition of employment. The orientation included instruction and practice in online pedagogical strategies for student engagement, development of partnerships with other faculty members, and suggestions for activities that facilitate learning. Techniques of communication and engagement with students were included in the orientation. Additionally, as adjunct faculty members achieve mastery in facilitation of learning as well as engaging with and responding to students, their level of self-efficacy should increase (Brannagan & Oriol). According to Bandura (1977), a group of individuals who have a shared belief in their ability to accomplish a task form a collective agency. The notion of collective agency further supports the concept of self-efficacy toward the desired teaching outcome.

Brannagan and Oriol (2014) also discussed an online model for orientation and mentoring of adjunct faculty; their model is supported by Bandura's social cognitive theory (1997). Bandura's model is based on the concept of self-efficacy, the belief in one's ability to engage in and be successful in a particular behavior. This theory offers the premise that unless people believe they can produce desired effects by their actions, they have little incentive to act (Bandura, 1977). As previously discussed, nursing education programs often employ nurses who have extensive expertise in their specialty, but have little or no teaching experience, particularly in online education (Peters & Boylston, 2006). These novice instructors may begin their teaching role with little self-efficacy; the premise of the CIP and the research in this study is that through

education for the role, they will learn strategies that promote successful teaching behaviors increasing feelings of efficacy.

### **Self-efficacy**

Building on the concept of self-efficacy is Bandura's definition: self-efficacy concerns one's belief in one's ability, or perceived ability, to function in a particular setting (Bandura, 1977). Feelings of self-efficacy are achieved through learning and attainment of goals. Self-efficacy is embedded in social cognitive theory; this theory states that learning occurs through observation, experience, and knowledge (Bandura). Goals are attained through four interrelated processes of learning that include self-observation, self-evaluation, self-reaction, and self-efficacy (Bandura). These processes of learning are foundational to clinical education in the CIP and are explicit components of each CIP module.

Bandura (1977) also outlined four sources of information that individuals use to judge feelings of self-efficacy. The first source is performance outcomes, resulting from mastery of the experience based on practice of a skill. The second source is vicarious experiences; vicarious experiences occur based on seeing others perform the skill. The third source, verbal persuasion, results from feedback from others. The final source is that of physiological feedback (physical and emotional responses). Performance outcomes are instrumental to an individual when determining his or her feelings of self-efficacy (Gist & Mitchell, 1992). Positive and negative experiences that have occurred in the past can influence the ability of an individual to perform a given task. If one has previously performed well at a task, he or she is more likely to feel competent and perform well at a similar or related task (Bandura). A desired outcome of the CIP is that the clinical instructors will develop a personal philosophy for their development of the role as clinical educator. Perception of self-efficacy, coupled with physical and emotional

responses related to their teaching role, will be measured before and after nurse clinicians participate in the CIP modules.

In addition, Bandura stated that self-efficacy involves “beliefs in one’s capabilities to organize and execute the courses of action required to produce given attainments” and that it is a context-specific judgment of capability to perform a task, dependent on the task at hand (Bandura, 1997, p.3). Perception of self-efficacy in the nurse clinician for the role of clinical educator is foundational to this study; a hoped for outcome of participation in the CIP is that the nurse clinician will have a sense of or perception of competence following completion of this online program. With regard to this important outcome, specific attributes related to teacher self-efficacy, instructional quality, and motivation to learn are discussed below and conclude the literature review.

### **Self-efficacy in Teachers**

Teacher efficacy has shown to be related to the educational outcomes of teacher persistence, enthusiasm, commitment, and instructional behavior (Tschannen-Moran & Woolfolk Hoy, 2001). These authors suggested that student outcomes are also related to efficacy beliefs in the teacher; student outcomes include achievement, motivation, and self-efficacy beliefs. Furthermore, a teacher’s efficacy belief includes a judgment that he or she can bring about the desired outcomes of student engagement and learning for students who may be difficult to work with or who are unmotivated (Bandura, 1977). Additionally, teachers who have a strong sense of efficacy tend to have greater levels of planning and organization and are more open to new ideas and methods (Allinder, 1994; Zimmerman, 2000). Resilience and persistence when there are setbacks or student errors are increased with greater teacher efficacy; these qualities are also

influenced emotional intelligence (Ashton & Webb, 1986, Tschannen-Moran & Woolfolk Hoy 2001).

As previously identified in the review of the literature, emotional intelligence includes the ability to process information, to practice experiential learning, to adapt to the environment, and to reason (Allen et al., 2012 & Bulmer-Smith et al., 2009). Consistent with these abilities tied to emotional intelligence, Bulmer-Smith et al. and Freshwater and Stickley (2004) found that the ability to deal with emotion and sensitivity is a core nursing skill. Allen and colleagues concurred, stating that a high level of emotional intelligence is essential for faculty members to be effective in clinical teaching. This finding further supports the key role of self-efficacy in effective clinical instruction.

As discussed in Chapter I, nurse clinicians may have a strong sense of efficacy and competence in their area of practice; however, they may have little sense of self-efficacy as a clinical instructor or clinical teacher (Robinson, 2009). Effective instruction in nursing calls for teachers who have both personal and teaching efficacy. In order to attain efficacy, the nurse educator needs to have a clear understanding of the process of clinical education together with a sense of efficacy for the role of clinical instructor.

Zulkosky (2009), using the model developed by Rogers (1989) analyzed the concept of self-efficacy stating that self-efficacy beliefs influence how people think, feel, and have motivation to act on a goal. She stated that self-efficacy is concerned about one's perception or judgment of ability to accomplish a goal. Additionally, to gain a sense of self-efficacy, Zulkosky, along with Bandura (1977), stated that when a person can complete a skill successfully and observe someone else doing a task successfully coupled with positive feedback and physiological

cues as to successful completion of a task, he or she develops a sense of self-efficacy for the completion of the task.

Finally, Tschannen-Moran and Woolfolk Hoy (2001) examined self-efficacy beliefs of novice teachers in comparison to more experienced teachers, finding that teachers who started their careers with low self-efficacy either found better instructional strategies to improve their teaching performance or left the profession. A desired outcome is that nurse clinicians will quickly develop an increased sense of self-efficacy after completion of the CIP.

### **Conceptual Framework Supporting the CIP**

A philosophy of education is essential for clinical instructors to understand their role as teacher. It provides a basis for selection of instructional activities, curricular materials, and evaluation. It also defines their relationship with learners and others in the clinical environment (Bain, 2005; Gaberson et al., 2015 & Green, 2006).

Determining a teaching philosophy involves an understanding of several terms commonly used in clinical education (Gaberson et al., 2015). The term “clinical” pertains to involvement with patients; it is an adjective used in terms such as clinical practice, clinical instruction, or clinical evaluation. Second, the term “clinical teaching” means providing competent guidance for students in clinical settings. Clinical teachers guide, support, stimulate, and facilitate learning for the student in the clinical environment. Finally, the clinical experience involves learning as an active, personal process.

According to Gaberson et al., (2015), eight elements form the basis of a philosophy for clinical teaching. First, clinical education should reflect the nature of professional practice. A professional is a person who has developed expert knowledge and skill in a specific area, acquired through formal education and through experience. Furthermore, professionals use their

knowledge and skill on behalf of society as they serve a specific client population. The knowledge base and skill repertoire of the professional nurse must “go beyond current knowledge and skills” in order to prepare students for current and future practice (Gaberson et al. p.9). Exposing students to problems for which there is either insufficient or conflicting data expands the student’s knowledge base. As previously stated, the clinical instructor must have emotional intelligence to effectively impart this knowledge.

Specifically, emotional intelligence is a quality allowing successful transfer of knowledge from instructor to student. Emotional intelligence is the ability to understand one’s own emotions, perceive others’ emotions, use emotions to facilitate thought, and self-regulate emotions (Powell, Mabry, & Mixer, 2015). Developing emotional intelligence is important to managing relationships with both colleagues and patients. A literature critique on the development of emotional intelligence in mental health nurses highlighted how high levels of emotional intelligence are correlated with greater caring behavior of nurses, higher quality nurse-patient relationships, successful teams, greater employee retention, and better patient outcomes (Powell et al., 2015). Because effectively collaborating and communicating with colleagues’ impacts patient care and safety, it is important for nurses to develop emotional intelligence.

Second, instruction in the clinical area provides real-life experiences and opportunities for the transfer of knowledge from classroom to practice situations (Gaberson, et al, 2015). Although clinical instruction is the cornerstone of nursing education, all clinical teaching cannot take place in the clinical area due to expense and availability of clinical sites. Classroom instruction should be used to prepare students for clinical practice, and therefore, it is vital that the clinical instructor have a thorough knowledge of the curriculum, a concept taught in Module Three of the CIP.

Third, the nursing student in the clinical setting must be understood as a learner rather than a nurse; this principle is essential to the nursing student's successful transfer of knowledge from classroom to clinical practice. The central focus in clinical education should be on learning, an element addressed in Module Five of the CIP as teaching strategies are identified (Gaberson et al, 2015).

Fourth, sufficient learning time should be provided before performance is evaluated because skill acquisition is a complex process. Clinical faculty members should allow time and opportunity for feedback before the summative evaluation of student performance (Gaberson et al 2015). The evaluation process is taught in Module Six of the CIP.

Fifth, clinical teaching requires a climate of mutual trust and respect between faculty and student to facilitate student growth (Gaberson et al., 2015; Green, 2006). A desired outcome from the CIP modular series is that of mutual trust and respect between clinical instructor and student.

Sixth, clinical teaching and learning should focus on essential knowledge, skills, and attitudes. Because time for clinical teaching is limited, the focus in the clinical setting should be on the most common practice problems (Gaberson et al., 2015). However, the curriculum also should include an enrichment component that allows for more depth and variety than essential content alone; curriculum and clinical practice are identified in Module Three of the CIP.

The seventh element, which also related to curriculum, is the "espoused curriculum may not be the curriculum-in-use" (Gaberson et al., 2015, p. 13). The espoused curriculum is the one reviewed for state approval and accreditation; this curriculum includes official course syllabi and clinical evaluation tools. The curriculum-in-use is the curriculum implemented in the classroom or clinical setting; the faculty teaches based on the circumstances and available resources.

Faculty members should attempt to operationalize the espoused curriculum, making it relevant to clinical practice.

The eighth and final element of the teaching philosophy is that students need varying amounts of time for clinical learning activities with quality of the experience being more important than quantity of hours spent (Gaberson et al., 2015). The learning of critical skills results from time spent in the clinical setting; however, the quality of the clinical experience is more valuable than mere repetition of skills. Teaching strategies that assist the clinical instructor in providing quality experiences are discussed and identified in Modules Four and Five of the CIP.

In addition to the elements discussed above, the Synergy Model for Nurse Educators provides a theoretical framework underlying the elements necessary for a teaching philosophy. The Synergy Model, described in detail in Chapter I of this paper, supports the ability to accomplish the elements listed in the philosophy suggested by Gaberson and colleagues (2015). Key points of the Synergy Model as applied to the CIP are described in the section below.

### **The Synergy Model for Nurse Educators: Foundation for Module One, Philosophy**

The Synergy Model for Nurse Educators, identified by Green (2006) and adapted from the American Association of Critical-Care Nurses Certification Corporation's Synergy Model for Patient Care (2003), is a significant part of the conceptual framework supporting the CIP. Although the Synergy Model serves as a blueprint for certification of both acute and critical care nurses, the model is relevant to the entire profession of nursing because it provides suggested characteristics and competencies from which nurse educators and learners alike should practice (Curley, 1998). This model is suggested as a framework for nursing instructors to use in developing their philosophy of teaching as noted in Module One of the CIP.

Key points of this model include resiliency, vulnerability, stability, and complexity. Other characteristics include resource availability, participation in care and decision making, and predictability. These factors offer connections that are useful in matching preceptor and preceptee teaching and learning styles as closely as possible, and are connections necessary for a sense of synergy in the teaching-student relationship (Alspach, 1995; Kaplow, 2002). The model provides a framework for the development of educational practice guidelines and evaluation tools with the goal of improved learning outcomes for nurses (Green, 2006).

The competencies described in the Synergy Model for Nurse Educators match the needs of the learner with those of the competencies of the nurse instructor (Green, 2006). Although the model specifically addresses the nurse educator role, it also assumes that the clinical partner is a contributor to the education of the student. Clinical learning activities must allow for the development and maintenance of synergy between the nurse instructor, the student, and the clinical partner.

Therefore, the aims of the CIP promise a valuable method of preparing nursing instructors for their role and offer a method of education that is easily accessible and thorough. As previously stated, other clinical instruction programs have not been validated for their effectiveness. Accordingly, nurses participating in the CIP were asked to evaluate the program through a series of questions designed to determine the value of each module as well as their feelings of self-efficacy before and after having participated in the program.

The literature supports concepts identified in the CIP as important for clinical education. The concept of self-efficacy developed by Bandura (1977) provides a framework to measure the clinical instructor's feelings of efficacy based on CIP participation. Models of clinical instruction as well as strategies for teaching and student engagement have been identified in this chapter.

My hope is that the modules comprising the CIP will prove to be an effective means for clinical education, providing a model that can be replicated by other institutions.

## CHAPTER III

### METHODOLOGY

As stated in Chapter I, clinical teaching is the cornerstone of undergraduate nursing education. For purposes of this paper, clinical instruction is defined as teaching undergraduate nursing students in an acute care practice area. Examples include medical surgical, pediatric, obstetric, or mental health clinical practice settings.

#### **The Problem Statement and Purpose of the Study**

There is no clear guidance as to which type of educational program best addresses methods of preparation for teaching in the clinical practice setting (Buccieri et al., 2013). Furthermore, many nurse clinicians hired to teach in this setting are employed as adjunct faculty members, and are hired on a temporary or part-time basis. These clinicians may be clinical experts in their field, but they need an educational program that teaches the skills and competencies necessary for effective instructional practice (Lewallen, 2002; Peters & Boylston, 2006). Adjunct faculty hired for clinical teaching often work full-time in their specialty areas. Consequently, they have limited contact with core faculty members who could assist in providing strategies for clinical teaching. Additionally, part-time faculty members often have limited time for orientation to the role of clinical educator; they are usually not paid for orientation time (Peters & Boylston). As a result, many do not receive education or guidance for the clinical faculty role.

In response to this need, I developed an educational program, the Clinical Instructor Program (CIP), that is offered online and asynchronously in order to help prepare nurse

clinicians for teaching in the clinical setting. The CIP offers a series of six online modules with curricular content in the following areas: the importance of and suggestions for a personal philosophy of teaching, orientation of students to the clinical setting, and the curriculum as a context for clinical teaching. Other modules include evaluation of the student, clinical teaching strategies, and methods for making the clinical practice assignment.

The purpose of this study was to determine whether feelings of self-efficacy improved after participation in the CIP. Evaluation of this intervention was accomplished by assessment of nurse clinicians' feelings of self-efficacy before and after participation in the CIP course. More precisely, I measured the extent to which knowledge of instructional content, pedagogic strategies for clinical teaching, and an understanding of the role of clinical educator are influenced by participation in the CIP. For purposes of this study, the novice instructor is one who has not taught in the clinical setting prior to CIP participation. The experienced instructor had one year of teaching prior to CIP participation.

## **Method**

Specifically, this study sought to answer the following research questions:

1. Will nurse clinicians increase their sense of self- efficacy in their ability to practice as clinical instructors after participation in the CIP?
  - 1a: Is there a difference in self-efficacy for the entire group of nurse clinicians after participation in the CIP (Clinical Instructor Program)?
  - 1b: Is there a difference in self-efficacy between experienced and non-experienced clinicians after participation in the CIP?
2. Does the CIP improve nurse clinicians' understanding of the role of clinical instructor?
  - 2a: Is there improvement in nurse clinician understanding of their role for the entire group after participation in the CIP?

- 2b: Is there a difference in between experienced and non-experienced nurse clinicians in understanding of their role after participation in the CIP?
3. Do nurse clinicians improve in understanding of instructional content after participation in the CIP?
- 3a: Did the entire group of nurse clinicians improved in understanding of instructional content after participation in the CIP?
- 3b: Is there a difference between experienced and non-experienced nurse clinicians with regard to understanding of instructional content after participation in the CIP?
4. Does participation in the CIP improve knowledge of instructional strategies for teaching in the clinical setting?
- 4a: Is there a difference in knowledge of instructional strategies for the entire group after participation in the CIP?
- 4b: Is there a difference in knowledge of instructional strategies between experienced and non-experienced nurse clinicians after participation in the CIP?

Corresponding to each research question are four study hypotheses:

1. Nurse clinicians prepared for the role of clinical educator will increase their self-efficacy concerning their ability to practice as clinical instructors after participation in the CIP.
- 1a: There is a difference in self-efficacy for the entire group of nurse clinicians after participation in the CIP (Clinical Instructor Program).
- 1b: There is a difference in self-efficacy between experienced and non-experienced clinicians after participation in the CIP.

2. The CIP improves nurse clinicians' understanding of their role.
  - 2a: There is improvement in nurse clinician understanding of their role for the entire group after participation in the CIP.
  - 2b: There is a difference in between experienced and non-experienced nurse clinicians in understanding of their role after participation in the CIP.
3. Nurse clinicians improve in their understanding of instructional content after participation in the CIP.
  - 3a: The entire group of nurse clinicians improves in understanding of instructional content after participation in the CIP.
  - 3b: There is a difference between experienced and non-experienced nurse clinicians with regard to understanding of instructional content after participation in the CIP.
4. The CIP improves nurse clinicians' knowledge of instructional strategies for teaching in the clinical setting.
  - 4a: There a difference in knowledge of instructional strategies for the entire group after participation in the CIP.
  - 4b: There is a difference in knowledge of instructional strategies between experienced and non-experienced nurse clinicians after participation in the CIP.

A quantitative methodology was used to test the four hypotheses. As Matveev (2002) argued, quantitative methods provide a high level of measurement precision and statistical power. Conversely, qualitative methods can supply a greater depth of information about the communication processes in a particular situation. Qualitative analysis is suggested as a topic for future research with the goal of identifying needed areas for change and improvement for the CIP.

## **Participants**

Study participants were selected from a convenience sample of adjunct clinical faculty members (nurse clinicians) who were hired at four selected universities in the southeastern United States. Participants were recruited by the undergraduate baccalaureate program coordinator at each hiring institution. The coordinator was given criteria for study participation prior to recruitment. These criteria included that nurse clinicians hired for the role of clinical instructor were master's prepared and newly employed in the role of clinical instructor, having taught for one semester or less before study participation. They served as clinical instructors in one of several clinical areas, including basic skills, pediatrics, medical/surgical, obstetrical, or mental health nursing.

Sample size was calculated using G power analysis. A sample size of 15 was found to achieve 82% power with a moderate effect of greater than 0.8 standard deviation changes; this was achieved using a two-sided paired t-test and an alpha level of .05. While a sample size of 15 was feasible, a size of 34 was determined preferable in order to detect a smaller effect size; 35 nurse clinicians participated in the study. Effect size refers to the difference between groups; in this study, effect size refers to improvement in the pre- and posttest scores of the participants. Effect size is the main finding of a quantitative study (Sullivan & Fein, 2013). The *p* value identifies whether an effect exists, but will not reveal the size of the effect. For purposes of this study, effect size and statistical significance (*p* value) were considered to identify the sample size and are discussed further in Chapter IV.

## **Research Design**

Measurement of self-efficacy for nurse clinicians after completion of the online CIP was achieved in this pre-and posttest design through the administration of the modified Self-Efficacy

Toward Teaching Inventory (SETTI) described later in this chapter. The SETTI was administered immediately before nurse clinicians began the intervention of the CIP and immediately after their completion of the CIP. Following each module, participants were asked to answer two quiz questions before progressing to the next module. While quiz results identified understanding of modular content, they were not counted as data (see Appendix L). As previously stated, differences in mean pre-and posttest scores of the study participants were evaluated using the paired samples *t* test for repeated measures meaning that each participant was assessed on two occasions (pre and post CIP participation). The *t* test is commonly used when the variances of two normal distributions are unknown and there is a relatively small sample size. It is also used when there is a repeated-measures design with an intervention.

The independent variable was nurse completion of the CIP. The dependent variable for the study was the evaluation of self-efficacy by nurse clinicians who have completed the online CIP. A limitation of the study was that teaching performance or changes in teaching strategies of nurse clinicians who participated in the study were not identified or evaluated.

Internal threats to validity include that nurse clinicians may not complete the modules. External threats include nurse clinician receptivity to CIP content and their working relationships with staff in the clinical setting. Another threat includes any additional orientation materials provided by course coordinators which may differ from that of the CIP. Research question one measured the participants' mean scores for all 39 items of the SETTI. Research questions 2, 3 and 4 were answered using the subset of items indicated in Table 1.

Table 1

*Self-Efficacy Survey Items and Associated Research Questions*

Research Question	SETTI Items
2. Does the program improve nurse clinician understanding of the role of clinical instructor?	10,12,13,14,15,16,21,23,27,31,39
3. Does the nurse clinician feel stronger about instructional content after participation in the CIP?	1,2,3,4,5,6,17,18,19,20,22,24,25,28,29,30,32,33,34,35,37
4. Does participation in the CIP improve knowledge of instructional strategies for teaching in clinical settings?	6,7,8,9,26,36,38

**Data Collection Methods**

In this section, description of the revised SETTI and its administration is discussed. Measurement of reliability and validity of the SETTI, as well as measurement of content validity of the modules is addressed.

The SETTI (see Appendix C) was developed by Nugent, Bradshaw, and Kito (1999). The original version of the SETTI consisted of 48 items and was used to measure the perceived self-efficacy of new nurse educators for teaching (Nugent et al, 1999). Internal consistency for the original instrument was high (Cronbach’s alpha coefficient = .95). The SETTI was later adapted by Bolton (2011) into a 39-item test. Participants in Bolton’s study (n = 21) completed the questionnaire three times. Cronbach’s alpha reliability coefficient for both the self-efficacy pretest and self-efficacy posttest questionnaire was 0.95, indicating that there was high internal consistency among questionnaire items. I made minimal revisions in the language in Bolton’s tool so that it is now specific to clinical education, but retained all 39 items. Revisions were made with permission from Bradshaw and Bolton (Appendices F and G).

The SETTI requires that participants respond to each item using a 4-point Likert-scale ranging from 1 “not confident” to 4 “completely confident.” In the current study measuring self-efficacy after participation in the CIP, the revised SETTI (see Appendix C) was used to measure the degree to which nurse clinicians reported their feelings of self-efficacy in their ability to practice as clinical instructors.

### **Measurement of Reliability for the SETTI**

To establish reliability for my revisions of the SETTI, ten novice nurse clinicians were asked to assist in establishing internal consistency reliability for the revised SETTI. These nurses had characteristics similar to study participants and were identified by myself or the undergraduate or graduate coordinator of two of the study universities. The clinicians had taught or precepted students in the clinical practice setting for one semester or less, were prepared with a master’s degree in nursing or nursing education, and were currently practicing in the nursing role. Each clinician was given a copy of the SETTI and asked that they rate their feelings of efficacy based on teaching six to eight students in the clinical practice setting.

Split half reliability testing was conducted for measurement of internal consistency. Responses to the SETTI items were divided into two groups, odd-numbered items in one group and even-numbered items in the other with a mean score calculated for each group. Using Cronbach’s alpha as a measure of internal consistency, a reliability coefficient was obtained to see how closely the means of the two groups correlate.

### **Measurement of Content Validity of the SETTI**

Content validity concerns the degree to which a scale has an appropriate sample of items to represent the construct of interest and whether the domain of content for the construct is adequately represented by the items (Waltz, Strickland & Lenz, 2010). Consideration of content

validity includes asking experts to determine if important elements of the content are represented. With this intent, the undergraduate coordinator of the participating schools asked a panel of five nurse educator experts who had taught in the clinical setting for at least 10 years to review the SETTI with regard to content validity. The intent of this review was to confirm that each item in the tool measured self-efficacy in the novice nurse clinician. Each nurse expert was asked to rate the items based on the 1 to 4 scale. Results were emailed to the undergraduate coordinator who returned these to me via email.

Among nurse researchers, the most widely used method of quantifying content validity for multi-item scales is the Content Validity Index (CVI) discussed by Polit, Beck and Owen (2007). For purposes of this study, a CVI value was determined for each item on the SETTI. For calculation of an “item-level,” the nurse experts were asked to rate the relevance of each item to self-efficacy on a 4-point scale. The scale that seems to be most relevant and most often used is where a rating of 1 = not relevant, 2 = somewhat relevant, 3 = quite relevant, 4 = highly relevant (Davis, 1992). The cumulative rating of each item was then divided by the number of experts reviewing the item. For example, an item rated as “quite” or “highly” relevant by four out of five nurse experts would have an I-CVI of .80 (Polit et al., 2007). Polit et al. stated that scale developers often use a criterion of .80 as the lower limit of acceptability for item relevance. Most writers used this standard, citing Davis (1992), who stated that “for new instruments, investigators should seek 80% or better agreement among reviewers” (p. 197).

### **Measurement of Validity of the Modules**

Similar to the process for rating the validity of the SETTI, the validity of the modules was also rated by the five expert nurse educators. Each nurse educator was instructed to rate each module on a 4-point scale. A rating of 1 would indicate that the content of the module is not

relevant, 2 = somewhat relevant, 3 = quite relevant, 4 = highly relevant to nurse clinician education. Again, the undergraduate coordinator sent results from the five participating nurse experts to me via email.

## **Procedures**

CIP participants were from four selected universities; permission was obtained from the Institutional Review Board (IRB) from each university prior to study participation of the participant. Although the coordinator initially contacted potential participants, clinicians who expressed interest in study participation were asked to email me directly. I responded with an email explaining the study in greater detail, and sent a copy of the study consent form to each participant. Upon receipt of the signed consent form, I sent the URL for the website for study entry to each consenting participant. As study participants entered the website, they were asked to identify and enter a code that included demographic data before taking the SETTI test (see appendix E). They were prompted to enter the same code with their demographic data after completion of the CIP prior to taking the post-test SETTI. Rationale for code identification was that pre and post-test data could be matched for each participant in the event that the participant did not recall his or her pretest code. Demographic data connected with the code included age, sex, practice area, and whether or not the participant was new to teaching, or has taught one previous semester. The degree held by each participant was reported to me in the initial email correspondence.

## **Protection of Rights of Participants**

As discussed, each participant was asked to complete a consent form that discussed the study aims and methods, including a description of the CIP. This consent document informed participants that participation in the study was voluntary; their decision regarding participation

did not affect their employment status. Participants were told that the study was performed as a partial fulfillment of my requirements for the degree of EdD.

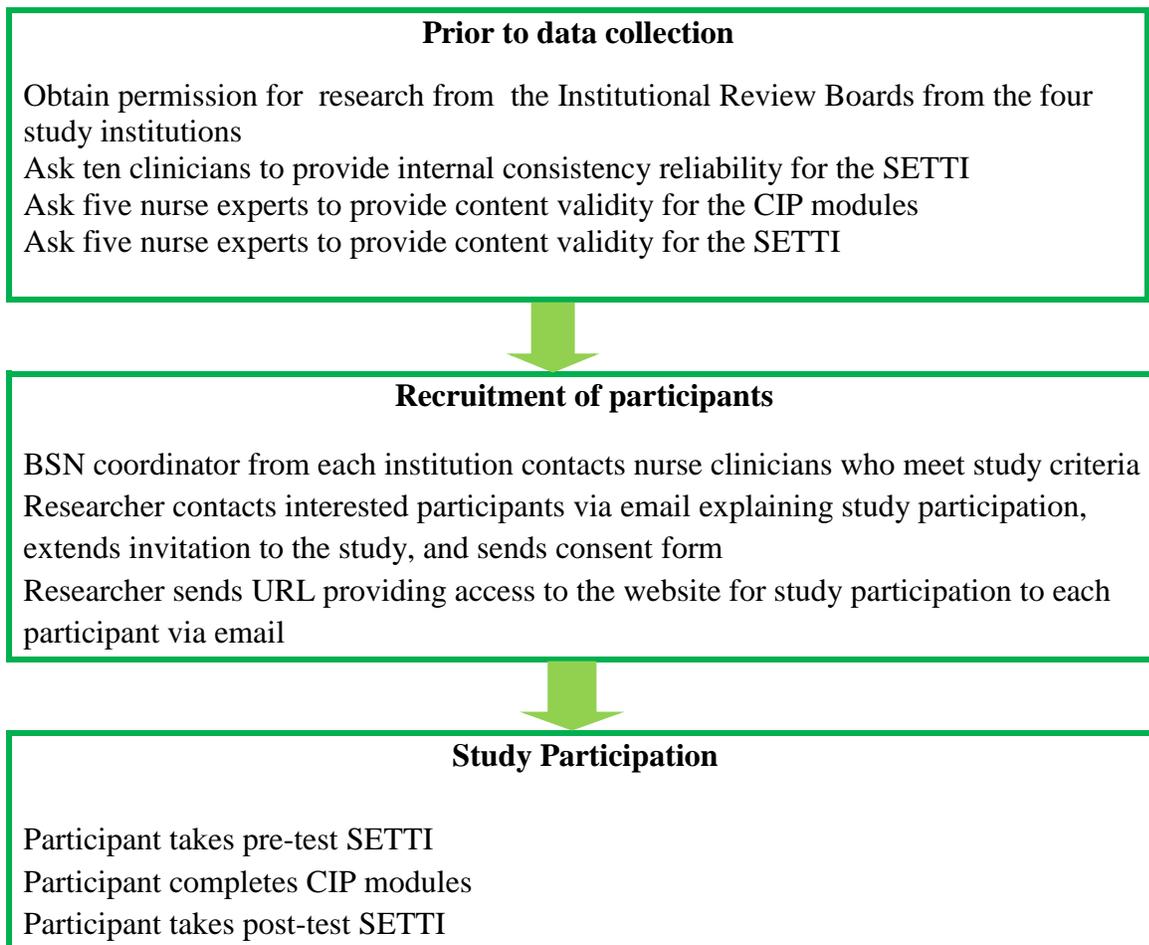
Participants signed the consent form found in Appendix B. This form described the study, giving exact details of requirements for participation. As part of the study procedures, this form was emailed to each nurse clinician prior to their participation in the CIP. The nurse clinician was asked to sign the consent and return to me via email or direct mail based on personal choice. In my initial email to prospective participants, I asked level of education. Other demographic data were obtained as participants entered the website as previously discussed. These data included age, sex, and clinical practice setting, such as medical/surgical nursing, pediatrics, maternity or mental health nursing (see Appendix H).

Participants were informed that all data were confidential; names of participants would not be connected to information or future publication of the material. Participants were notified that there were no known risks to study participation. If participants felt that they could not complete the CIP, they were asked to notify me. There were no penalties or repercussions if they declined to participate or did not complete the study.

### **Conclusion**

In the previous chapters, I discussed how the CIP was developed to provide adjunct faculty members (nurse clinicians) with the curricular and pedagogic knowledge necessary for successful clinical instruction. Additionally, I supported development of the CIP with relevant literature in this field. The problem addressed in the study was whether the CIP provided instructors with useful teaching strategies and knowledge and strengthens their sense of efficacy for the role of clinical instructor. To this end, I proposed a quantitative study to determine if nurse clinicians have a stronger sense of self- efficacy concerning their ability to practice as

clinical instructors after participation in the CIP. Additional questions determine whether the CIP improves nurse clinicians' understanding of the role of clinical instructor and whether or not they believe that the CIP provides strong instructional content for teaching in the clinical setting. A final question asked if the program improved their knowledge of instructional strategies.



*Figure 1.* Flowchart of research procedures.

## CHAPTER IV

### RESULTS

This chapter presents the results from the analysis of the data obtained in this study. A description of the participants' demographic characteristics is followed by a discussion of the findings relevant to each research question, including the acceptance or rejection of each research hypothesis.

Clinical instruction is a cornerstone of undergraduate nursing education, a component essential to preparation of students for their role as nurses. Suggestions for instructional methods and curricular content used for clinical education are extensively discussed in nursing literature. However, there is no clear guidance as to which of the proposed methods best addresses educational instruction in the hospital-based clinical learning environment (Buccieri, et al., 2013).

The clinical setting provides a practice area for students to apply learned classroom content to clinical practice. Research indicates that the traditional model of one instructor providing direct instruction to six or eight clinical students is the best model for undergraduate clinical education (Brunero & Stein-Parbury 2008; Dilworth et al., 2013 & (Franklin 2013). As previously stated, research supporting any one method of education for clinical instruction has not been identified. Therefore, I developed an online series of modules called the Clinical Instructor Program (CIP). These modules comprise a course of study designed to educate experienced nurse clinicians for the role of clinical instructor. For purposes of this study, the

novice instructor is one who has not taught in the clinical setting prior to CIP participation. The experienced instructor had one year of teaching prior to CIP participation.

The purpose of this study was to determine whether the CIP effectively prepares nurse clinicians for the role of clinical instructor as measured by their knowledge of clinical instructional content and the teaching role in the clinical setting, pedagogic strategies, and their assessment of self-efficacy as a clinical instructor before and after CIP education. Research questions include the following:

1. Will nurse clinicians increase their sense of self- efficacy in their ability to practice as clinical instructors after participation in the CIP?

1a: Is there a difference in self-efficacy for the entire group of nurse clinicians after participation in the CIP (Clinical Instructor Program)?

1b: Is there a difference in self-efficacy between experienced and non-experienced clinicians after participation in the CIP?

2. Does the CIP improve nurse clinicians' understanding of the role of clinical instructor?

2a: Is there improvement in nurse clinician understanding of their role for the entire group after participation in the CIP?

2b: Is there a difference in between experienced and non-experienced nurse clinicians in understanding of their role after participation in the CIP?

3. Do nurse clinicians improve in understanding of instructional content after participation in the CIP?

3a: Does the entire group of nurse clinicians improve in understanding of instructional content after participation in the CIP?

3b: Is there a difference between experienced and non-experienced nurse clinicians with regard to understanding of instructional content after participation in the CIP?

5. Does participation in the CIP improve knowledge of instructional strategies for teaching in the clinical setting?

4a: Is there a difference in knowledge of instructional strategies for the entire group after participation in the CIP?

4b: Is there a difference in knowledge of instructional strategies between experienced and non-experienced nurse clinicians after participation in the CIP?

Corresponding to each research question are four study hypotheses:

1. Nurse clinicians prepared for the role of clinical educator will increase their self-efficacy concerning their ability to practice as clinical instructors after participation in the CIP.

1a: There is a difference in self-efficacy for the entire group of nurse clinicians after participation in the CIP (Clinical Instructor Program).

1b: There is a difference in self-efficacy between experienced and non-experienced clinicians after participation in the CIP.

2. The CIP improves nurse clinicians' understanding of their role.

2a: There is improvement in nurse clinician understanding of their role for the entire group after participation in the CIP.

2b: There is a difference in between experienced and non-experienced nurse clinicians in understanding of their role after participation in the CIP.

3. Nurse clinicians improve in understanding of instructional content after participation in the CIP.

3a: The entire group of nurse clinicians improves in understanding of instructional content after participation in the CIP.

3b: There is a difference between experienced and non-experienced nurse clinicians with regard to understanding of instructional content after participation in the CIP.

4. The CIP improves nurse clinicians' knowledge of instructional strategies for teaching in the clinical setting.

4a: There a difference in knowledge of instructional strategies for the entire group after participation in the CIP.

4b: There is a difference in knowledge of instructional strategies between experienced and non-experienced nurse clinicians after participation in the CIP.

The independent variable is nurse completion of the CIP. The dependent variable for the study is the evaluation of self-efficacy by nurse clinicians who have completed the online CIP. The research is designed to investigate whether the introduction of the CIP program improves feelings of self-efficacy, role understanding, knowledge of instructional content, and knowledge of instructional strategies for teaching.

### **Demographic Data**

The sample for this study was a convenience sample of nurse clinicians who were employed as clinical instructors by four universities in the southeastern region of the United States. Each clinician was invited by the baccalaureate undergraduate program coordinator to voluntarily participate in the study. Reports from course coordinators indicated that 50 clinicians met criteria for study participation from the four universities. Though 50 were asked to participate, responses indicated that one nurse clinician stated that he had several years of prior teaching experience which precluded his participation. Two other clinicians initially agreed to

participate, but did not return the consent form after initial email contact. Twelve clinicians who were asked to participate did not respond to the initial invitation from the BSN coordinator. Therefore, total enrollment in the CIP program was 35 nurse clinicians (n=35). As shown in Chapter III, a sample size of 34 would detect a small effect size at an alpha of .05 (Cohen, 1988). Calculation of sample size was done using G Power Analysis based on a paired *t*-test.

Basic demographic information identified in H was obtained via email and upon entry to the website for the CIP. Demographics of the sample are included in Table 2. The sample consisted of 34 women (97%) and one man (2.9%). Participants were between 25 to 72 years of age. Five of the 35 participants taught in Labor and Delivery (14%), 18 taught in Medical/Surgical settings (51%), 2 taught in Mental Health (5.7%) and 3 taught in the basic skills course (8.5%). The remaining 7 participants (2%) taught in pediatric nursing. Participants reported the following levels of education: three DNP candidates, one PhD prepared clinician, one with a dual master’s degree in education and nursing, one EdD participant and the remainder prepared with a master’s degree in nursing.

Table 2

*Demographic Characteristics of Participants (n = 35)*

Characteristic	N	%
Age		
25-72	35	100
Teaching experience		
Taught at least one semester	24	68
New to teaching	11	32
Clinical Practice Setting		
Labor and Delivery	5	14
Medical Surgical	18	51
Mental Health	2	6
Basic Skills	3	9
Pediatrics	7	20
Gender		
Female	34	97
Male	1	3

## **Study Instruments**

Measurement of self-efficacy for nurse clinicians after completion of the online CIP was achieved in this pre-and posttest design through the administration of the modified Self-Efficacy Toward Teaching Inventory (SETTI). The original version of the SETTI was designed by Bradshaw and Nugent (1999) and included items related to both classroom and clinical teaching. Bolton (2011) adapted the SETTI into a more condensed tool; however, items relevant to classroom teaching were retained. Therefore, I adapted the SETTI to a scale that measures only efficacy for clinical teaching. The SETTI was administered immediately before nurse clinicians began the intervention of the CIP and immediately after their completion of the CIP. The SETTI includes 39 items that rate nurse clinician feelings of self-efficacy, understanding of their role, knowledge of instructional content, and knowledge of instructional strategies

### **Measurement of Reliability of the SETTI**

Ten novice nurse clinicians were asked to assist in establishing internal consistency reliability for the revised SETTI. Rationale for establishment of internal consistency is that when items are used to form a scale they need to all measure the same concept; they should be correlated with one another. For this reason the coefficient is also called the internal consistency or the internal consistency reliability of the test (Streiner & Norman, 1989). For establishment of reliability, each clinician was given a copy of the SETTI and asked to rate their feelings of efficacy based on teaching six to eight students in the clinical practice setting.

Using the ratings from the nurse clinicians, split half reliability testing was conducted for measurement of internal consistency of the SETTI. Two measures were used to determine reliability of this tool; these measures are the Guttman split-half and Cronbach's alpha. The Guttman split-half reliability coefficient is an adaptation of the Spearman-Brown reliability

measure and does not require equal variances between the two split forms. Scores are the subject's responses to the SETTI questionnaire.

SPSS 23 was used to determine the Guttman score. Models supported by SPSS which measure reliability also include Cronbach alpha which models internal consistency based on average correlation among items and split-half. This model is based on the correlation between the parts of a scale which is split into two forms. An internal consistency coefficient of .65 to .85 is suggested as an acceptable range in determining measurement. Cronbach's alpha generally increases when the correlations between the items increase. A high correlation between the two groups (coefficient close to 1) indicates that there is high internal consistency within the revised SETTI (Table 3). Scores from both the Guttman Split-Half Coefficient and the Cronbach's alpha indicate a good internal consistency of items on the SETTI; the Cronbach's alpha was .974 and the Guttman split-half coefficient .922.

Table 3

*Reliability Statistics for Guttman and Cronbach's Alpha*

Cronbach's alpha	Value	N of items
Part 1	.934	20
Part 2	.968	19
Total N of Items		39
Correlation between forms		.877
Guttman split-half coefficient		.922

Table 4

*Summary Table for Cronbach's Alpha and Guttman Split-Half Coefficient*

Reliability Statistic	Value
Cronbach's Alpha	0.974
Guttman Split-Half Coefficient	0.922

## **Measurement of Content Validity of the SETTI**

Content validity concerns the degree to which a scale has an appropriate sample of items to represent the construct of interest and whether the domain of content for the construct is adequately represented by the items (Waltz, Strickland & Lenz, 2010). Five nurse educator experts who had taught in the clinical setting for at least 10 years were asked to review the SETTI with regard to content validity. The intent of this review was to confirm that each item in the tool measured self-efficacy in the novice nurse clinician. As previously stated, among nurse researchers, the most widely used method of quantifying content validity for multi-item scales is the Content Validity Index (CVI) discussed by Polit, Beck and Owen (2007). Therefore, CVI value was determined for each item on the SETTI. For calculation of an “item-level,” the nurse experts were asked to rate the relevance of each item to self-efficacy on a 4-point scale. The scale that seems to be most relevant and most often used is where a rating of 1 = not relevant, 2 = somewhat relevant, 3 = quite relevant, 4 = highly relevant (Davis, 1992). This scale was used to determine reliability of the SETTI by five nurse experts. A desired score is closer to 1; the relevance of the SETTI items as scored by the nurse experts indicated that all items had a CVI of 0.8 or above. Consequently, all items were retained (see Appendix I).

## **Content Validity of the Modules of the CIP**

Similar to the process for rating the validity of the SETTI, the validity of the modules was also rated by the five expert nurse educators. Each nurse educator was instructed to rate each module on a 4-point scale. A rating of 1 would indicate that the content of the module is not relevant, 2 = somewhat relevant, 3 = quite relevant, 4 = highly relevant to nurse clinician education. The content validity of the modules was good, each receiving a CVI of 0.8 or higher, indicating that nurse experts felt the content of the modules had good validity (see Appendix J).

## **Research Question 1**

*Will nurse clinicians increase their sense of self- efficacy in their ability to practice as clinical instructors after participation in the CIP? Specifically,*

*1a: Is there a difference in self-efficacy for the entire group of nurse clinicians after participation in the CIP (Clinical Instructor Program)?*

*1b: Is there a difference in self-efficacy between experienced and non-experienced clinicians after participation in the CIP?*

## **Hypothesis 1**

*Nurse clinicians prepared for the role of clinical educator will increase their self-efficacy concerning their ability to practice as clinical instructors after participation in the CIP.*

*1a: There is a difference in self-efficacy for the entire group of nurse clinicians after participation in the CIP (Clinical Instructor Program).*

*1b: There is a difference in self-efficacy between experienced and non-experienced clinicians after participation in the CIP.*

To address research question 1 and the corresponding hypothesis, 35 participants completed the online CIP. Prior to participation in this program, all were asked to complete the Self-Efficacy Toward Teaching Inventory (SETTI). Numerical values were identified in the SETTI ranging from 1-4 with 1 being not confident to 4, completely confident. As identified, the first research question asks about feelings of self-efficacy for teaching before and after participation in the CIP modules. Means for the pretest and posttest were found to be 112.57 and 128.11, respectively, with corresponding standard deviations of 25.14 and 18.99 (see Table 5).

Table 5

*Question 1a: Paired Samples Statistics*

Paired <i>t</i> test	Mean	N	Std. Deviation	Std. Error Mean
Posttest	128.11	35	18.99	3.21
Pretest	112.57	35	25.14	4.25

A paired *t* test was calculated to answer Question 1a. The paired *t* test determines if there is a difference in pretest and posttest exposure to the CIP. The *t* value was 2.57, *n*=35 and a *p* value of 0.015 (see Table 6). The difference between pretest and posttest on improving the self-efficacy of nurse clinicians was significant.

Table 6

*Question 1a: Paired Samples Test*

Paired Difference for Posttest-Pretest			95% Confidence Interval of Differences			
Mean	Std. Deviation	Std. Error Mean	Lower/Upper	<i>t</i>	df	Significance
15.54286	35.80	6.05	3.25/27.84	2.57	34	.015 (2-tailed)

In summary, the self-efficacy of nurse clinicians who completed the CIP was significantly improved; *H<sub>0</sub>* is rejected as was the alternative hypothesis stating that nurse clinicians increased in self-efficacy after participation in CIP program.

To answer 1b, an independent *t* test was calculated comparing feelings of self-efficacy between nurse clinicians with prior teaching experience (*n* = 24) and those who were new to teaching (*n* = 11); means and standard deviations are reported in Table 7.

Table 7

*Question 1b: Independent Samples Test*

	Mean Difference	Std. Error Difference
Posttest	17.53	6.32
Pretest	4.60	9.26

A test of homogeneity of variance (Levene's test of homogeneity) was calculated to determine dispersion within groups with experience and the group new to teaching. The pretest  $p$  value for the homogeneity of variance is 0.043 and the posttest 0.484 (Table 9). Because the resulting  $p$  value of Levene's test was less than 0.05, the Kruskal Wallis test, a non-parametric test, was calculated for both pretest and posttest results. This test is used when there is a violation of assumptions, such as homogeneity of variance and normality. (See Tables 8 and 9 for the Levene's test)

Table 8

*Question 1b: Descriptive Analysis of Variance: Group Statistics*

Teaching	N	Mean	Std. Deviation
Posttest			
Experienced	24	133.63	16.17
New	11	116.09	19.82
Pretest			
Experienced	24	111.13	20.62
New	11	115.73	33.99

Table 9

*Question 1b: Levene's Test of Equality of Error Variances*

	$t$	df1	df2	Significance
Posttest	.50	1	33	.484
Pretest	4.44	1	33	.043

The pretest Kruskal Wallis resulted in a chi square value of .698 with 1 degree of freedom and a significance value of .403. The pretest result was not significant (see tables 10 and 11). However, the Kruskal Wallis analysis of posttest comparisons between the group with no experience and the group with one semester teaching experience resulted in a chi square value of 5.350 with df of 1 and a p value of .021 (see Tables 12 and 13). Therefore, the difference between those with experience and those with no experience was significant, indicating that hypothesis 1b is confirmed. The clinicians who have more experience had a greater sense of self-efficacy after CIP participation

Table 10

*Question 1b Pretest: Kruskal-Wallis Test*

Teaching	N	Mean Rank
Yes	24	17.02
No	11	20.14
Total	35	

Table 11

*Question 1b: Test Statistics*

	Total 2
Chi-square	.698
df	1
Significance ( <i>p</i> value)	.403

Table 12

*Question 1b Posttest: Kruskal-Wallis Test*

Teaching Experience	N	Mean Rank
Yes	24	20.71
No	11	12.09
Total	35	

Table 13

*Question 1b: Test Statistics*

	Total 2
Chi-square	5.35
df	1
Significance ( <i>p</i> value)	.021

## **Research Question 2**

Research question 2 asks: *Does the CIP improve nurse clinicians' understanding of the role of clinical instructor? Specifically,*

*2a: Is there improvement in nurse clinician understanding of their role for the entire group after participation in the CIP?*

*2b: Is there a difference in between experienced and non-experienced nurse clinicians' in understanding of their role after participation in the CIP?*

## **Hypothesis 2**

Hypothesis 2 states: *The CIP improves nurse clinicians' understanding of their role.*

*2a: There is improvement in nurse clinician understanding of their role for the entire group after participation in the CIP.*

*2b: There is a difference in between experienced and non-experienced nurse clinicians in understanding of their role after participation in the CIP.*

To answer research question 2a and the corresponding hypotheses, questions 10,12,13,14,15,16,21,23,27,31,39 were used from the SETTI. Pre and posttest SETTI results revealed significant improvements for nurse clinicians in this area. Participants again rated their understanding of their role using numerical values ranging from 1-4 with 1 being not confident to 4, completely confident. Means for the pretest and posttest were found to be 33.97 and 38.29 respectively with corresponding standard deviations of 6.95 and 5.23 (see Table 14).

Table 14

*Question 2a: Paired Samples Statistics*

Paired <i>t</i> test	Mean	N	Std. Deviation	Std. Error Mean
Posttest	38.29	35	5.23	0.88
Pretest	33.97	35	6.95	1.17

A paired *t* test was calculated to answer question 2a. The *t* value was 2.568,  $n=35$  and a *p* value of 0.015 (see table 15). The difference between pretest and posttest on improving the clinicians understanding of role for the entire group was significant, indicating that nurse clinicians had a greater understanding of their teaching role in the clinical setting after completion of the CIP

Table 15

*Question 2a: Paired Samples Test*

Paired Difference for Posttest-Pretest			95% Confidence Interval of Differences			
Mean	Std. Deviation	Std. Error Mean	Lower/Upper	<i>t</i>	df	Significance
4.31429	9.94	1.68	0.90/7.729	2.57	34	.015 (2-tailed)

In summary, understanding of the role of teacher in the clinical setting of nurse clinicians who completed the CIP was significantly improved. Accordingly, hypothesis 2a was accepted at .016 level of significance.

To answer 2b, an independent t test was calculated to determine nurse clinician understanding of their teaching role in the clinical practice setting. A comparison was done between those new to teaching (n = 11) versus those who had prior teaching experience (n = 24) (see Table 16).

Table 16

*Question 2b: Independent Samples Test - Test for Equality of Means*

	Mean Difference	Std. Error Difference
Posttest	5.06	1.72
Pretest	.17	2.57

A test of homogeneity of variance (Levene's test of homogeneity) was calculated to determine dispersion within groups with experience and the group new to teaching. The pretest *t* value for the homogeneity of variance is .029 and the posttest 0.728 (Table 18). Because the resulting *p* value of Levene's test was less than 0.05, the Kruskal Wallis test was calculated for both pretest and posttest results. This test was used when there is a violation of assumptions, such as homogeneity of variance and normality (see Tables 17 and 18 for the Levene's test).

Table 17

*Question 2b: Univariate Analysis of Variance: Group Statistics*

Teaching	N	Mean	Std. Deviation
Posttest			
Experienced	24	39.88	4.57
New	11	34.82	5.06
Pretest			
Experienced	24	33.92	5.51
New	11	34.09	9.71

Table 18

*Question 2b: Levene's Test of Equality of Error Variances*

	<i>t</i>	df1	df2	Significance
Posttest	.12	1	33	.728
Pretest	5.18	1	33	.029

The pretest Kruskal Wallis resulted in a chi square value of .324 with one degree of freedom and a significant value of .569. The pretest result was not significant (see Tables 19 and 20). However, the Kruskal Wallis analysis of posttest comparisons resulted in a chi square value of 5.739 with df of 1 and a *p* value of .017. Therefore, the difference between those with experience and those with no experience was significant indicating that hypothesis 2b was accepted. Those who had more experience had a greater understanding of their role after CIP participation than novice instructors (see Tables 21 and 22).

Table 19

*Question 2b Pretest: Kruskal-Wallis Test*

Teaching	N	Mean Rank
Yes	24	17.33
No	11	19.45
Total	35	

Table 20

*Question 2b: Test Statistics*

	Total 2
Chi-square	.324
df	1
Significance ( <i>p</i> value)	.569

Table 21

*Question 2b Posttest: Kruskal-Wallis Test*

Teaching Experience	N	Mean Rank
Yes	24	20.79
No	11	11.91
Total	35	

Table 22

*Question 2b: Test Statistics*

	Total 2
Chi-square	5.74
df	1
Significance ( <i>p</i> value)	.017

### **Research Question 3**

*Do nurse clinicians have improved understanding of instructional content after participation in the CIP? Specifically,*

*3a: Does the entire group of nurse clinicians improve in understanding of instructional content after participation in the CIP?*

*3b: Is there a difference between experienced and non-experienced nurse clinicians with regard to understanding of instructional content after participation in the CIP?*

### **Hypothesis 3**

*Nurse clinicians improve in understanding of instructional content after participation in the CIP.*

*3a: The entire group of nurse clinicians improved in understanding of instructional content after participation in the CIP.*

*3b: There is a difference between experienced and non-experienced nurse clinicians with regard to understanding of instructional content after participation in the CIP.*

To address research question 3a and the corresponding hypothesis, 33 participants answered questions 1,2,3,4, 5,6,17,18,19,20,24,25,28,29,30,32,33,34,35,37 from the SETTI. These questions are designed to respond to feelings of efficacy related to knowledge of instructional content to be taught in the clinical practice setting. The 33 participants rated their understanding of their role using numerical values ranging from 1-4 with 1 being not confident to 4 being completely confident. Post SETTI results for the 33 study participants showed no significant improvement in their understanding of what content must be taught in the clinical practice setting. Means for the pretest and posttest were found to be 61.09 and 67.06, respectively with standard deviations of 14.37 and 9.47 (see Table 23).

Table 23

*Question 3a: Paired Samples Statistics*

Paired <i>t</i> test	Mean	N	Std. Deviation	Std. Error Mean
Posttest	67.06	33	9.47	1.65
Pretest	61.09	33	14.38	2.50

A paired *t* test was calculated to answer question 3a. The *t* value was 1.713, *n* = 33 and a *p* value of 0.096 (see Table 24). The difference between pretest and posttest on improving the clinicians understanding of the content taught in the clinical practice setting does not show that completion of the CIP makes a difference in knowledge of instructional content.

Table 24

*Question 3a: Paired Samples Test*

Paired Difference for Posttest-Pretest			95% Confidence Interval of Differences			
Mean	Std. Deviation	Std. Error Mean	Lower/Upper	<i>t</i>	df	Significance
5.96970	20.02	3.48	-1.13/13.07	1.71	32	0.096

In summary, The CIP does not show improved knowledge of instructional content.

Hypothesis 3a was rejected.

To answer 3b, an independent t test was calculated comparing nurse clinician's understanding of instructional content taught in the clinical practice setting. A comparison was done between those new to teaching versus those who had prior teaching experience. Means and standard deviations are reported in table 25.

Table 25

*Independent Samples Test: t-Test for Equality of Means for Question 3a*

	Mean Difference	Std. Error Difference
Posttest	9.36	3.06
Pretest	-3.71	5.28

A test of homogeneity of variance (Levene's test of homogeneity) was calculated to determine dispersion within groups with experience and the group new to teaching. The pretest *t* value for the homogeneity of variance is .062 and the posttest .196 (Table 19). Since the resulting *p* value of Levene's test is less than 0.05, the Kruskal Wallis test was calculated for both pretest and posttest results. This test is used when there is a violation of assumptions, such as homogeneity of variance and normality (see Tables 26 and 27 for the Levene's test)

Table 26

*Question 3b: Univariate Analysis of Variance: Group Statistics*

Teaching	N	Mean	Std. Deviation
Posttest			
Experienced	22	70.18	7.23
New	11	60.82	10.38
Pretest			
Experienced	22	59.57	11.70
New	11	63.27	19.027

Table 27

*Question 3b: Levene's Test of Equality of Error Variances for Question 3b*

	<i>t</i>	df1	df2	Significance
Posttest	1.75	1	33	.196
Pretest	3.74	1	33	.062

The pretest Kruskal Wallis resulted in a chi square value of 1.141 with one degree of freedom and a significant value of .285. The pretest result was not significant (see Tables 28 and 29). However, the Kruskal Wallis analysis of posttest comparisons resulted in a chi square value of 6.286 with df of 1 and a *p* value of .012. Therefore, the difference between those with experience and those with no experience was significant, indicating that hypothesis 3b is confirmed. Those who have more experience had greater understanding of instructional content after CIP participation than novice instructors (see Tables 30 and 31).

Table 28

*Question 3b Pretest: Kruskal-Wallis Test*

Teaching Experience	N	Mean Rank
Yes	22	16.24
No	11	20.14
Total	33	

Table 29

*Question 3b: Test Statistics*

	Total 2
Chi-square	1.141
df	1
Significance ( <i>p</i> value)	.285

Table 30

*Question 3b Posttest: Kruskal-Wallis Test*

Teaching Experience	N	Mean Rank
Yes	22	20.46
No	11	11.32
Total	33	

Table 31

*Question 3b: Test Statistics*

	Total 2
Chi-square	6.29
df	1
Significance ( <i>p</i> value)	.012

#### **Research Question 4**

Research Question 4 asks: *Does taking the CIP improve knowledge of instructional strategies for teaching in the clinical setting? Specifically,*

*4a: Is there a difference in knowledge of instructional strategies for the entire group after participation in the CIP?*

*4b: Is there a difference in knowledge of instructional strategies between experienced and non-experienced nurse clinicians after participation in the CIP?*

#### **Hypothesis 4**

*The CIP improves nurse clinicians' knowledge of instructional strategies for teaching in the clinical setting.*

*4a: There a difference in knowledge of instructional strategies for the entire group after participation in the CIP.*

*4b: There is a difference in knowledge of instructional strategies between experienced and non-experienced nurse clinicians after participation in the CIP.*

To address research question 4a and the corresponding hypotheses, SETTI questions 6,7, 8,9,26,36,38 were asked. Thirty- five participants rated their knowledge of instructional strategies pre and post SETTI on a scale of 1-4 with 1 being not confident to 4, completely confident. Post SETTI results for the 35 study participants showed no difference in their knowledge of instructional strategies used in the clinical practice setting. Means for the pretest and posttest were found to be 20.23 and 20.09 respectively with standard deviations of 5.05 and 3.56 (see Table 32).

Table 32

*Question 4a: Paired Samples Statistics*

Paired <i>t</i> test	Mean	N	Std. Deviation	Std. Error Mean
Posttest	20.09	35	3.57	0.60
Pretest	20.23	35	5.05	0.85

A paired *t* test was calculated to answer question 4a. The *t* value was -0.124, n=35 and a *p* value of 0.902 (See Table 33). The difference between pretest and posttest on improving the clinician knowledge of instructional strategies was not significant

Table 33

*Question 4a: Paired Samples Test*

Paired Difference for Posttest-Pretest			95% Confidence Interval of Differences			
Mean	Std. Deviation	Std. Error Mean	Lower/Upper	<i>t</i>	df	Significance
-0.14	6.81	1.15	-2.48/2.20	-.124	34	0.902

In summary, completion of the CIP does not show that participants improved in their knowledge of instructional strategies. Hypothesis 4 was rejected.

An independent *t* test was calculated comparing nurse clinician’s knowledge of instructional strategies used in the clinical practice setting. A comparison was done between those new to teaching (n= 11) versus those who had prior teaching experience (n = 24); means and standard deviations are reported in Table 34.

Table 34

*Question 4a: Independent Samples Test – t-Test for Equality of Means for Question 4b*

	Mean Difference	Std. Error Difference
Posttest	9.36	3.06
Pretest	-1.66	1.85

A test of homogeneity of variance (Levene’s test of homogeneity) was calculated to determine dispersion within groups with experience and the group new to teaching. The pretest *t* value for the homogeneity of variance is .027 and the posttest 0.283 (Table 36). Because the resulting *p* value of Levene’s test is less than 0.05, the Kruskal Wallis test was calculated for both pretest and posttest results. This test is used when there is a violation of assumptions, such as homogeneity of variance and normality (see Tables 35 and 36 for the Levene’s test).

Table 35

*Univariate Analysis of Variance: Group Statistics: Question 4b*

Teaching	N	Mean	Std. Deviation
Posttest			
Experienced	24	21.08	2.99
New	11	17.91	3.88
Pretest			
Experienced	24	19.71	4.21
New	11	21.36	6.64

Table 36

*Question 4b: Levene's Test of Equality of Error Variances*

	<i>t</i>	df1	df2	Significance
Posttest	1.19	1	33	.283
Pretest	5.39	1	33	.027

The pretest Kruskal Wallis resulted in a chi square value of .799 with one degree of freedom and a significant value of .371. The pretest result was not significant (see Tables 37 and 38).

However, the Kruskal Wallis analysis of posttest comparisons resulted in a chi square value of 4.700 with df of 1 and a *p* value of .030. Therefore, the difference between those with experience and those with no experience was significant, indicating that hypothesis 4b is confirmed. Those who have more experience had greater understanding of instructional strategies after CIP participation than the novice instructor (see Tables 39 and 40).

Table 37

*Question 4b Pretest: Kruskal-Wallis Test*

Teaching Experience	N	Mean Rank
Yes	24	16.96
No	11	20.27
Total	35	

Table 38

*Question 4b: Test Statistics*

	Total 2
Chi-square	.799
df	1
Significance ( <i>p</i> value)	.371

Table 39

*Question 4b Posttest: Kruskal-Wallis Test*

Teaching Experience	N	Mean Rank
Yes	24	20.52
No	11	12.50
Total	35	

Table 40

*Question 4b: Test Statistics*

	Total 2
Chi-square	4.70
df	1
Significance ( <i>p</i> value)	.03

### **Other Findings**

The primary aim of this research was to evaluate feelings of self-efficacy for both novice and experienced clinical instructors participating in the CIP. For the group as a whole, self-efficacy and understanding of role improved following program participation. However, a comparison of the scores between novice and experienced instructors found that experienced instructors improved more significantly than novice instructors in all areas including understanding of content and strategies. Overall scores showed that the novice instructor scores improved 89% after CIP participation. The experienced instructors showed a greater improvement of 98% in feelings of efficacy following CIP participation. Although this data does not permit statistical measurement, findings suggest that the CIP has significant value for the education of nurse educators. This claim clearly warrants further study.

## CHAPTER V

### DISCUSSION

Four research questions were addressed in this study. Data from the first research question were examined to determine if the introduction of an online program called the CIP (Clinical Instructor Program) improved feelings of efficacy for the role of clinical instructor. The CIP is designed to prepare nurse clinicians to teach in the clinical practice setting. Each participant took a pretest (SETTI) to measure feelings of efficacy before program participation. They responded to the same test items after program participation. The original version of the SETTI was designed by Bradshaw and Nugent (1999) and included items related to both classroom and clinical teaching. Bolton (2011) adapted the SETTI into a more condensed tool; however, items relevant to classroom teaching were retained. I adapted the SETTI so that items measure efficacy for clinical teaching only. The completed scoring was entered into SPSS statistical software for analysis. The Cronbach's alpha and Guttman split-half coefficient indicated that the SETTI had strong interrater reliability. A content validity index was done to measure reliability of the modules and the SETTI; both had good reliability and validity. Nurse clinician scores from the pre and posttest SETTI were tested using a paired *t* test. There was significant improvement in feelings of self-efficacy for the group as a whole following program participation. The group was then divided into those with prior teaching experience and those new to teaching. These scores were analyzed using an independent *t* test. Unexpected findings indicated that the experienced instructors improved more in their feelings of self-efficacy after CIP participation than on those new to the teaching role.

The second research question asked if the CIP improved nurse clinicians' understanding of the role of clinical instructor. The difference between pretest and posttest on improving the clinicians understanding of role for the entire group was significant; nurse clinicians had a greater understanding of their teaching role in the clinical setting after completion of the CIP. Again, those with prior experience had greater understanding of role after CIP participation. The numbers are suggestive of the valuable impact that the CIP may have for role development and merit attention for further development of the CIP; this is an area for future research.

The third question asked if nurse clinicians felt stronger about their knowledge of instructional content after participation in the CIP. Another unexpected finding was that the CIP did not show significant improvement for the group as a whole. However, clinicians with experience did show that the program had a more significant impact on their understanding of instructional content. Along with improvement in self-efficacy, these findings are suggestive of the valuable impact that the CIP might have for teaching instructional content; this is an area for future research.

The final research question asked if the CIP improved knowledge of instructional strategies for teaching in the clinical setting. The difference between pretest and posttest for the group as a whole on improving the clinicians' knowledge of instructional strategies was not significant; again, those with prior teaching experience showed that the CIP improved their knowledge significantly. The numbers are suggestive of potential impact that the CIP may have on effective teaching of strategies; this is an area for future research.

## **Findings**

### **Self-efficacy**

Findings indicated that feelings of self-efficacy for the entire group of nurse clinicians improved following participation in the CIP. However, an independent *t* test was calculated that compared feelings of self-efficacy between nurse clinicians with prior teaching experience and those who were new to teaching. The difference between those with prior experience and those new to teaching is significant, confirming that nursing educators with teaching experience had a greater sense of self-efficacy following CIP participation. A possible explanation is that experienced nurse educators scored more highly because they had an understanding of the processes involved in clinical education. They had better application of the concepts and teaching strategies suggested in the CIP because they had greater awareness of what clinical teaching involves. Additionally, experienced instructors had previous successes in the role, but could also identify areas where they struggled. These findings are consistent with Bandura's concept of self-efficacy which states that the belief that people have concerning their ability to engage in, and be successful in a particular behavior, improves their feelings of efficacy for the behavior (Bandura, 1977).

Brannagan and Oriol's 2014 findings also support this concept of self-efficacy applying it directly to the faculty role. They stated that as faculty members feel successful in the role of clinical teacher, their level of self-efficacy should increase. In summary, experienced instructors were better able to apply the CIP content to their teaching role. They had greater awareness of their strengths, as well as their needs for further education, than the novice instructor. Having previous experience with successful teaching, and the ability to improve with knowledge gained from the CIP, their self-efficacy improved.

These findings are supported by Robinson (2009) who addressed self-efficacy concepts of nurse clinicians in advanced practice roles. These clinicians are often asked to consider teaching in the clinical setting. Robinson stated that while clinicians in an advanced practice role may have a strong sense of self-efficacy and competence in their area of clinical practice, they may have little sense of self-efficacy as a clinical instructor. In order to attain efficacy, the instructor needs to have a clear understanding of the process of clinical education. Experienced instructors in the current study have this understanding. Robinson's work further supports rationale for the findings that self-efficacy improved more for the experienced instructor than for the novice instructor.

Tschannen-Moran and Woolfolk Hoy (2001) examined self-efficacy beliefs of novice teachers compared to more experienced teachers. They found that teachers who began their careers with low self-efficacy either acquired instructional strategies to improve their teaching performance, or they left the profession. A desired outcome of CIP participation is that novice instructors will acquire the necessary strategies to improve their performance through participation in the CIP, and consequently will not feel a need to leave the teaching role.

Following CIP participation, both novice and experienced instructors scored more highly on self-efficacy, findings in agreement with those of Tschannen-Moran. Although experienced instructors scored more highly than novice instructors, the group as a whole improved in the concept of self-efficacy; perhaps they were introduced to promising strategies for teaching. While novice instructors may not have scored as highly, they may have learned strategies from the CIP that were helpful for their future role as a clinical teacher. Though the current research design is not qualitative, several instructors emailed comments after they completed the CIP; these comments support findings discussed in the literature. Examples include the following

comment about CIP participation by a novice instructor: “I found the modules to be a great asset! As a new clinical instructor, the modules and strategies help me structure priorities so that student experiences could be maximized. I also have not seen some of the unique situations more experienced instructors would have known how to handle. Having a plan prior to the event is always nice.” A comment from an experienced instructor also supports these findings:

As a person who thinks in lists, it helped to see the cognitive domains of learning and how various parts of clinical learning are categorized into these domains. Your lists of student activities and strategies within each domain were helpful in identifying where some students had issues. For example, under Interpersonal Skills, “Awareness of Self-acceptance” was a serious issue with one student this semester. Or realizing occasionally a student just doesn’t have the psychomotor skills to do a task as simple as totally empty a vial into a syringe. I used the statement, “Students are learners, not nurses” with preceptor nurses who at times expected too much of students or wanted us to do all their scut work. I feel so much better about my teaching now.

### **Understanding of Role**

Findings indicated that the group as a whole had significant improvements in this domain. However, an independent *t* test was used to compare understanding of role between the experienced nurse instructor and the novice instructor. Again, the experienced instructors showed greater improvement in understanding of their role compared to the novice instructors. A possible explanation for greater improvement in role understanding for experienced instructors is that they had awareness of their needs for specific aspects of role development. Novice instructors, who may not have such awareness, did not show as much improvement in role application.

Another component of role understanding is satisfaction (Robinson, 2009). Robinson stated that faculty development programs for both new and experienced clinical instructors leads to increased satisfaction with the teaching role, enhancing faculty retention. Although professional satisfaction was not specifically addressed in the current study, comments from an experienced nurse instructor indicate that CIP participation improves role understanding and consequent satisfaction:

You recommended “focus on learning not doing . . . your primary role is to be a teacher, not staff.” Again, these are important phrases for me as well as for preceptor nurses who expect the student to come in as a fully educated/experienced nurse. In “Setting Selections” for student assignments and preceptor nurses, your validation that adequate staff, good role models, and welcoming staff is a great influence on student learning. You reminded me that I am in charge of the student learning experience, not the preceptor nurse which is so important for my role. I was getting discouraged; this really helps me.

### **Understanding of Instructional Content**

A paired samples *t* test was conducted to determine if there is a difference in understanding of instructional content for nurse clinicians before and after participation in the CIP. An unexpected finding was that understanding of instructional content did not improve for the group as a whole after completion of the CIP. However, an independent *t* test was conducted to determine if there was a difference between experienced and novice instructors. With this comparison, there is a significant difference, indicating that experienced instructors developed greater understanding of content following CIP participation than novice instructors. Lending supporting to these findings, Baker (2010) and Peters and Boylston (2006) discussed the development of programs that provide content for clinical education. They stated that clinical

learning experiences are an integral part of successful educational programs for clinical teaching. Content is provided in each module of the CIP that suggests strategies for developing essential learning activities. Experienced nurse educators who understand application of these strategies were better able to apply this content to their teaching; they built on previous experience by applying suggested strategies.

Comments from an experienced clinical instructor indicated that strategies suggested in Module Three have improved her clinical teaching: “I appreciate that you make it clear that clinical teaching is more important than classroom teaching. This validates the work I do. The content for teaching in each module is helpful.”

Brannagan and Oriol (2014) suggested that a clear definition of job responsibilities and expectations is the first step toward mastery of teaching content for adjunct faculty. They stated that content should include two areas. The first is instruction and practice in online pedagogical strategies for student engagement. Interwoven throughout the CIP are strategies for student-instructor engagement identified in the content of Green (2006) and Bain (2005). The second is the development of partnerships with other faculty members, a concept not currently part of the CIP that will be discussed in the section, Limitations and Recommendations for Future Research.

Pedagogical strategies that facilitate learning are suggested in each module. As adjunct faculty members achieve mastery in facilitation of learning as well as engaging with and responding to students, their level of self-efficacy should increase (Brannagan & Oriol, 2014). Experienced educators had opportunities for student engagement as they taught in the clinical setting while participating in the CIP. As a result, they no doubt had immediate application of the strategies and presumably scored more highly in this area. Although novice instructors did not show improvement in understanding of content as compared to experienced instructors, a desired

outcome of CIP participation is that their understanding will increase as they have opportunity to apply the suggested strategies.

The second step is development of partnerships with other faculty members (Brannagan & Oriol, 2014). Experienced instructors in the study, coming from four different universities, may have had connections and partnerships with other faculty in their teaching facility. As stated above, a modality for this type of support is not currently part of the CIP. Therefore, novice instructors, with no experience in the teaching role, did not have partnership or support from other faculty members. A comment from a novice nurse clinician supports these findings: “I also appreciated Module Three where the need for communication between course coordinator and clinical instructor was discussed. I agree clinical should solidify classroom content, if I do not know what is being taught in class that week the clinical experience cannot solidify learning; I would not know how to teach content in clinical. This is important to my teaching.”

### **Understanding of Instructional Strategies**

A paired samples *t* test was used to answer question four. Results indicated that there was no difference in the group as a whole following CIP participation. However, an independent *t* test was conducted to determine if there was a difference between experienced and novice instructors. As with each preceding research question, a significant difference was found, indicating that experienced instructors showed greater knowledge of teaching strategies than the inexperienced instructors. A possible explanation for these findings is that strategies that facilitating student learning, along with the handling of difficult situations in the clinical setting, are necessary components of the clinical learning experience. The experienced instructor understands how to apply the strategies taught in the CIP and can build on their existing knowledge in this area. They understand what a “difficult situation” is in the clinical setting and

can apply CIP content to the realities of practice situations. With application of the strategies, they have improved understanding of the use of strategies, but also have a better awareness of their learning needs in this area than the novice instructor who has no such application.

Strategies necessary for clinical instruction include the selection of clinical learning experiences, facilitation of clinical pre and post-clinical conferences, and supervision of student learning. Additionally, the ability to supervise and teach the competency of motor skills is a necessary strategy for clinical teaching (Peters & Boylston, 2006). Although these strategies are interwoven and reinforced throughout all of the modules, Module Five identifies specific strategies for successful clinical teaching. The strategies of feedback and evaluation of students are key components of the CIP and are specifically taught in Module Six.

There were three comments from experienced instructors supporting the effectiveness of the CIP:

“Your list of characteristics of an effective teacher led me to do an on-going self-evaluation during the semester . . . as well as your description of a teacher exhibiting emotional intelligence. You also describe some things I had been doing without actually realizing it such as role modeling, providing supportive cues, and questioning.” Another supporting comment from an experienced instructor is: “I have done these things, but did not put a name on them. The CIP helped me with this.” An additional comment from an experienced instructor stated: “Your assignment strategies gave me ideas that I incorporated this semester such as dual students (weak and strong) with one patient . . . and how this can decrease student anxiety--But it also decreased MY anxiety when some students couldn't be in their assigned area that day, resulting in too many students with me for the unit.”

Novice instructors, as well as experienced instructors benefitted from the suggested strategies as evidenced in the following comment from a novice instructor: “Of particular interest to me were the tips in Module 5 about post-clinical conferencing and how to foster critical thinking through reflection.”

### **Implications**

Several key elements discussed in the literature concerning clinical teaching support the need for development of online educational programs such as the CIP. First, studies have shown that nursing programs must provide faculty development in the form of orientation and support. (Hewitt & Lewallen, 2010; Lewallen, Crane, Letvak, & Jones, 2003). Second, the present critical shortage of nurses emphasizes the need for programs of nursing to identify “creative options for increasing the supply of nurse educators” (Cangelosi, Crocker, et al., 2009, p. 367). Third, there is a need for clinical instructors who can effectively teach vital clinical skills to future nurses. Finally, there is little research supporting the efficacy of currently offered programs for clinical education supporting the notion of a theory/practice gap (Benner, 2010; Chan, Chan, & Liu, 2012; Dilworth et al., 2013; Hall-Lord, Theander, & Athlin, 2013; Winstanley & White, 2000).

Responding to the first elements, Benner (2010) stated that as faculty members retire, nursing education programs are losing some of their most experienced teachers. Consequently, they must find and mentor new faculty members. Benner stated that it is a challenge to retain new faculty members because clinicians can earn higher salaries in their clinical practice role than in teaching. These clinicians may bring up-to-date clinical knowledge and enthusiasm, but have no preparation for teaching. As a result, Peters and Boylston (2006) stated that there is a resulting sense of role strain and conflict. Without preparation, novice instructors often leave the

teaching role after a brief experience in the teaching role, and return to their full-time clinical practice.

The second element, creative options for increasing numbers of nursing educators includes development of an online program that can be offered asynchronously should encourage new instructors to remain in the role of clinical educator (Cangelosi et al, 2009). The following comments from both novice and experienced instructors who participated in the CIP support the need for an online program of education: “I think that the full time faculty is so busy that they fall into believing that clinical expertise translates to being a good teacher and that is not the case. Much of what I have learned has been trial and error and reading on my own. And I still feel I have only scratched the surface. This module series has really helped me.” Another comment: “I like that it (CIP) is online--that will help others who don't have time to come in for orientation.”

The third element states: there is a need for clinical instructors who can effectively teach vital clinical skills to future nurses. To this end, Benner (2010) suggested several implications for clinical teaching that are foundational in identifying educational needs for novice as well as experienced instructors. The first is ongoing faculty development for those involved in education of student nurses. Benner stated that there should be a focus on reflection on teaching in order to improve the quality of the student experience; this concept is taught in Module Five of the CIP. Second is a focus on integration between classroom and clinical education; strategies are offered in Module Three of the CIP. Third is inclusion of teacher education courses in the master's and doctoral programs; recommendations for use of the CIP as a faculty development tool are provided in future sections of this chapter. Fourth is provision of ongoing support for faculty members in learning how to coach and ask questions; strategies for coaching and asking

questions are interwoven throughout the CIP. Fifth is supporting educators in learning how to use narrative pedagogies. Benner stated that learning to think like a nurse involves developing an understanding of the clinical situation as well as having the ability to find science-based answers to pathophysiology. Knowledge of therapies, signs and symptoms, and the skills of listening to clarify patient and family concerns, are important strategies that must be taught. Module Five offers the strategies that Benner has identified to meet these competencies. Finally, Benner stated that staff nurses should be encouraged and supported in learning to teach students in the clinical setting. This is a topic for future development of the CIP discussed in the section of Limitations and Recommendations for Future Research.

Comments from participants in the CIP suggest that this program provides novice and experienced instructors with the education necessary for a positive experience in clinical teaching. This is evidenced by findings of increased efficacy for all CIP participants. With the support of a program that educates and orients clinicians to their teaching role, the clinician new to clinical teaching should be less likely to experience frustration and burnout (Peters & Bolyston, 2006).

De Young and Bliss stated that clinical teaching involves a grounded knowledge of curricular content and pedagogic strategies to support a positive learning environment (De Young & Bliss, 1995; Little & Milliken, 2007). The CIP provides both content and strategies that enable participants to provide better guidance and support for students. Although measurement of student outcomes is not a part of this study, improved outcomes for student success in the clinical practice setting are desired results of the CIP. This is a topic for future research and discussed in the section, Limitations and Recommendations for Future Research.

Dilworth et al. (2013) reviewed current approaches and challenges to clinical education. Along with Franklin (2013), these authors identified that there is confusion about the role and structure of clinical education as well as when such a program should be offered. Although education for the role of clinical instructor is complex, the CIP is based on a structure that is clearly specified and supported in the literature. The eight elements of a philosophy of clinical teaching suggested by Gaberson et al. provide a strong foundation for the CIP that should lessen confusion about structure and role. The online offering of the program allows for repeated review of the CIP teaching strategies. In this manner, the strategy that supports and provides a solution to a particular problem can be reviewed while one is teaching in the clinical setting. Comments from experienced faculty noted that the CIP provided a review of strategies that they had used previously in their teaching role in addition to new strategies that were helpful for their clinical teaching.

Because the CIP offers a program of orientation to the role, as well as ongoing education for the experienced instructor, an ideal time for the initial offering is soon after the new instructor is hired and prior to beginning teaching as a clinical educator. Although the novice instructors did not score as highly as the experienced instructors, they did improve in understanding of role and overall self-efficacy, validating the effectiveness of the CIP for clinical instruction. For experienced instructors, the CIP could also be used as a model of faculty development. An example of such a model is that each module could be reviewed either in an online modality with a chat room, or in a faculty development retreat. Discussion following presentation of each module with clinical examples could be offered. A desired outcome of this approach is for the CIP to provide a model for other university and hospital programs to orient and further educate new and experienced faculty members.

The literature identifies that education of clinical nursing instructors is instrumental in bridging the gap between the classroom and the clinical practice area. However, there continues to be a lack of consideration for outcome measures for any particular program (Dilworth et al. 2013; Franklin 2013; & Hall-Lord, 2013). Current research with the CIP provides outcome measures in the form of scores in the four areas of self-efficacy, role understanding, knowledge of content, and instructional strategies. Student outcomes are also related to the teachers' belief in his or her efficacy (Tschannen-Moran & Woolfolk Hoy 2001). These outcomes include achievement, motivation, and belief in oneself. Peters and Boylston (2006) state that feedback and evaluation from students about their clinical performance are key components of an educational program. Student outcomes and evaluation of the clinical instructor are not part of this current study and as such are important topics for future research; they are discussed in the section Limitations and Recommendations for Future Research.

Bastable (2008), stated that characteristics of adult learners include autonomy, self-direction, and intrinsic motivation. Adult learning should also include a problem-centered focus that draws on meaningful experiences. Experienced instructors who participated in the CIP were able to draw on previous teaching experience as evidenced by their improvement in feelings of efficacy. The modules of the CIP are offered online and asynchronously allowing for autonomy and self-direction of the learner. Clinicians, both experienced and novice, who volunteered to be part of this study participated in order to gain strategies for improvement in their clinical teaching. They were purposely not offered an incentive for participation; they were intrinsically motivated to participate. Finally, the CIP provides a problem-centered focus through use of a theoretical framework. This was viewed positively as evidenced by the following comment from an experienced PhD prepared clinical instructor: "I think this module will be extremely helpful to

new instructors. Before participation in the modules, I was given some practical, organizational pointers (not even much of that) but never a theoretical framework.”

Bastable (2008) also stated that focus for the adult learner is on immediacy of application and active participation in the learning experience. Experienced nursing instructors participating in the CIP were able to apply suggested strategies while teaching. Participants new to the role of clinical instructor could review components of the modules as they begin teaching. A comment from a novice clinical instructor after her initial experience orienting students to the clinical rotation emphasizes the importance of the immediacy of application: “I see now what you meant with orientation. I did not understand before.”

### **Limitations and Recommendations for Future Research**

The concept of clinical education is extensively discussed in nursing literature. However, clear guidance as to which model best fits the hospital based clinical learning environment has not previously been identified and supported with evidence as to its efficacy (Buccieri et al., 2013). Although the CIP provides a model of clinical education that has evidence to support its efficacy, there remains great need for further development of this program and for future research.

Adams and Dority stated that for adjunct faculty members to be successful in the role of clinical instructor, they must be provided with a well-organized and reliable program of mentoring and education. Although the CIP provides an organized program of education with initial research suggesting its validity, a limitation of the program is that it does not currently provide mentoring of the novice instructor.

Adams and Dority also proposed that a program must have clearly identified performance expectations, effective communication, support, and training for successful teaching outcomes.

In the CIP, objectives are provided identifying expectations for each module; a plan of instruction is included in Appendix A that identifies performance expectations for each module. However, communication and support from mentoring and sharing of ideas is not currently a part of the CIP; these components could easily be added through the use of online modalities of a discussion board and chat room. As previously discussed, the CIP could be offered as a faculty development program in a faculty retreat or educational session. The resulting personal contact with an expert teacher should provide greatly needed support and mentoring for the role. Finally, the CIP research identifies that both novice and experienced instructors feel greater self-efficacy for their teaching role. However, outcomes of student performance are not measured. These are suggestions for further development of the CIP and for future research.

Robinia and Anderson (2010) examined variables affecting efficacy levels of nurse faculty who participated in online teaching. Findings from their study support that online teaching correlates positively with teaching efficacy of nursing faculty. These findings are consistent with the research outcomes of the CIP. Implications for nursing practice include development of the CIP into a more interactive program of online instruction. The goal of increased interactivity is enhanced engagement with other colleagues and support from expert clinical educators, consistent with the findings of Robinia and Anderson.

Hall-Lord et al. (2013), along with Buccieri et al. (2013), emphasized that essential elements of clinical instruction include teaching and learning, relationships, professional development, skills, and individual reflection. These elements are strong components of the CIP with the exception of relationships. Through the strategies identified by Bain 2005 and Green 2006, the CIP provides strategies for building relationships between clinical instructor and

student. However there is not a provision for relationships with other clinical faculty. This is a limitation of the CIP and topic for future research.

Roberts et al. (2013) interviewed 21 adjunct clinical faculty members who described their needs in preparation for their new role as clinical instructor. The adjunct faculty identified orientation, support, and connection as necessary for role understanding. Strategies orienting nurse instructors to their role are interwoven throughout the six modules of the CIP. However, support and connection are not currently built into the CIP and as such, are suggestions for future research.

Teacher efficacy has been shown to be related to the educational outcomes of teacher persistence, enthusiasm, commitment, and instructional behavior (Tschannen-Moran and Woolfolk Hoy, 2001). Furthermore, a teacher's efficacy belief includes a judgment that he or she can bring about the desired outcomes of student engagement and learning for students who may be difficult to work with or who are unmotivated. Although not currently part of the online CIP, a recommendation for further development of this program includes a module devoted to strategies for working with the difficult student. Further development of a model of clinical education should include shadowing with a more experienced clinical instructor who has dealt with student issues. The following quote from an experienced instructor supports this belief:

“I thought it was a very good training module. From my perspective, the only other critical piece for new clinical instructors would be incivility. This, unfortunately, has reared its ugly head in a variety of ways with students, including my needing to address formally via academic channels. I know some of my peers would have shaken their heads and been frustrated but let it slide to avoid the fall out....which again, was not pretty. Most of my students are a delight to work with but there have been a few who were

incredibly challenging to work within the clinical setting due to a lack of respect (of time, effort, staff, course requirements, communication, . . .). I used Billings and Halstead's *Teaching in Nursing, A Guide for Faculty* to guide me through those experiences. Nevertheless, I was shocked by some of the things that occurred."

Strategies that assist in student learning, along with the handling of difficult situations in both the classroom and clinical setting, are necessary components of the clinical learning experience. Additional content is needed in the area of handling of difficult situations in the clinical setting as evidenced by the quote above. Although these comments are helpful, future research should be done in a qualitative manner allowing for improvement in the CIP through direct suggestions and comments.

Bonnel et al. (2005) discussed aspects of a web-based nurse educator certificate program. They suggested a variety of techniques offered through the online modality. These techniques include the use of case studies and dialogue, emphasizing the importance of interaction between the CIP participant and an expert clinical instructor. More interactive assignments for the CIP participants are suggested for future development of the CIP. Although these techniques are not currently part of the CIP, they are strategies for further development. After each module of the CIP, there is a short online with quiz (see Appendix L). Thirty three participants answered the quiz questions; however, data are not available to determine whether experienced instructors scored more highly than novice instructors. Bonnel et al. also discussed on online certificate programs. With further program development and measurement of improved student outcomes, the CIP could be easily be offered as a web-based certificate program as an incentive for participation.

Finally, Pierangeli (2006) developed a handbook and reference manual for clinical faculty members that included topics such as pre and post-clinical conference, teaching strategies, student clinical log requirements, and evaluation of clinical skills. Participants in the CIP received a manual that included supportive teaching materials. Although this manual needs further development, the reader is reminded of the quote previously cited: “YOU SAVED MY TEACHING! Seriously, the written resources were invaluable and this past session was amazing. (Admittedly, it helped that I had engaged, eager to learn students too.) I gave them copies of your pediatric cards (CBC, development, normal VS ranges, etc.) and they appreciated them. Thank you!!”

Additional limitations of the study include that numbers of novice and experienced instructors participating in the study were not evenly matched. Furthermore, participants did not respond to all questions in research question 3 concerning instructional content. A randomized control study is suggested for future research; the study group would answer SETTI questions based on CIP participation. The control group would not participate in the CIP, but would respond to SETTI questions.

## **Conclusion**

Ongoing nursing shortages, decreasing numbers of full-time nursing faculty members and the consequent hiring of adjunct faculty members underscore the need for efficient, effective nurse educator programs. The CIP was developed as a step in meeting this need. Feelings of self-efficacy, and understanding of role and content, along with strategies for teaching in the clinical teaching were measured. Results indicated that there was improved self-efficacy and role understanding for all participants. Knowledge of content and teaching strategies improved

significantly for the experienced instructors who could better apply these concepts to their teaching role.

The literature identifies key elements of clinical teaching that support the need for development of online educational programs such as the CIP. These include orientation to the role and strategies for teaching in the clinical setting. Additionally, the present critical shortage of nurses emphasizes the need for development of educational programs with “creative options for increasing the supply of nurse educators” (Cangelosi et al. 2009, p. 367). Furthermore, there is a need for clinical instructors who can effectively teach vital clinical skills to future nurses. The CIP was developed to meet these needs.

Implications for nursing education include development of the CIP into a more interactive program of online instruction. The goal of increased interactivity is enhanced engagement with other colleagues and support from expert clinical educators. Currently, components of support and mentoring are not built into the existing program. Recommendations for further development of the online CIP include a discussion board and chat room where participants can support each other and have access to an expert clinical instructor. Additionally, the CIP can be developed into an ongoing program of faculty development offered in a classroom setting or as a certificate program. A desired outcome of this study is that the CIP will be revised to include the additions in content and modality discussed in this chapter. If this program is adopted as a modality for clinical teaching, it must be considered as a valuable means of orientation and ongoing faculty development by the educational institutions seeking to purchase it. Clinical faculty members involved in overseeing the educational needs for novice, as well as experienced faculty, must see value in the CIP and make its use a requirement for both orientation and faculty development.

Clinical instruction is a cornerstone of undergraduate nursing education, a component essential to preparation of students for the role of nurse. As previously stated, suggestions for instructional methods and curricular content for clinical education are extensively discussed in nursing literature. However, to date, there has been no clear guidance as to which of the proposed methods best addresses the needs for teaching in the hospital-based, clinical learning environment. The CIP provides a beginning, a proposed program with evidence as to its efficacy, supporting research in the area of clinical education.

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APPENDIX A  
MODEL FOR THE CLINICAL INSTRUCTOR PROGRAM

## **Module 1: *Philosophical Foundations of Clinical Teaching and Learning***

### **Objectives:**

1. Review elements of a philosophy of education
2. Consider beliefs about teaching and learning
3. Review elements of clinical teaching: what the best clinical educators do
4. Discuss the importance of clinical education, i.e. teaching and evaluation are more important than classroom learning.
5. Understand roles of student and role of instructor

### **Content Outline**

Components of a philosophy of nursing education (Gaberson et al., 2015)

- Teaching should reflect the realities of practice
- Allow students to encounter real practice problems
- Don't focus on teacher-defined, well-structured problems for which answers are easily found in theory and research (examples given)
- Do expose students to ill-structured problems for which there is insufficient or conflicting information or there are multiple solutions
- The student is a Learner; Not a Nurse; focus for clinical education must be on desired learning outcomes; design learning activities so that students are learning to care for patients while learning
- Sufficient Learning time should be provided before performance is evaluated
- Establish a climate of trust and respect that is supportive of student growth; have sincere desire to see that students succeed

## **Module 2: *Orienting Students to the Clinical Setting***

### **Objectives:**

1. Discuss the key components of the orientation process
2. Identify unit/institution resources related to orientation
3. Identify a variety of strategies that can be used for orientation to the clinical unit

### **Content Outline:**

Establishment of a climate of trust and caring (bonding experience as students get to know one another and the instructor (see notebook for suggested introduction page)

Presentation of key components/necessities of orientation

- Brief discussion of the patient population of the unit
- Typical clinical day
- Time management
- Suggested plan of care (see notebook)
- Elements particular to the population, i.e. weight based medication administration and others, dress code (see suggestions from clinical notebook)
- Review of 5 rights of medication administration
- Give copies of any necessary information (see clinical notebook)
- Discuss charting (unit specific)

Resources for orientation

Expectations for Student Preparation

Written and verbal reinforcement of critical components presented in orientation through hands on taking of mock patient assignment

Communication with unit leadership/staff related to level of student's participation

### **Module 3: Curriculum/Course Overview: *The Context for Clinical Teaching***

#### **Objectives**

1. Discuss how a clinical experience reinforces and expands didactic learning
2. Identify connections between classroom and the clinical setting
3. Explore the notion that the “espoused curriculum” may not be the curriculum-in-use
4. Identify how to review the course syllabus and course schedule
5. Identify components of the cognitive, psychomotor, and affective domains

#### **Content Outline**

- Based on content in this module, differentiate clinical experiences appropriate for students at different level within the curriculum
  - a. expectations at junior and senior level
  - b. varying expectations for students at the same point in the curriculum
- Integrate student goals into clinical experience
- Review of suggested assignment/care plan (see in notebook)

### **Module 4: *Making Clinical Learning Assignments***

#### **Objectives:**

1. Identify methods for selection of clinical assignments
2. Describe roles of faculty, student, and staff in the clinical practice setting
3. Identify necessary elements for the pre-clinical preparation of students
4. Review alternative methods for making clinical learning assignments
5. List stressors in the clinical environment related to the clinical learning assignment

#### **Content Outline:**

- Review of general goals of clinical practice
- Level of student – beginning, intermediate, advanced
- Determination of which patients are appropriate or not appropriate for student assignments
- Role of charge nurse
- Matching student learning needs and patient care needs
- Need to vary types of experiences
- Keeping a “data base” of students’ assignments
- Posting assignments – what can be posted, where assignment can be posted  
Having a “plan B” in anticipation of unexpected patient census changes  
Deciding how much and what kind of patient information you need to have

- Pre-clinical preparation activities:  
As identified in orientation, information for student review and preparation prior to the clinical experience includes: Kardex (nursing orders), MAR, Lab results, and patient history); examples in notebook  
Review plan of care from module one (different from care plan – see teaching strategies)
- Consider learner selected assignments (teaching strategies, Module 5)

## **Module 5: *Clinical Teaching Strategies***

**Objectives:** Participants will:

1. Present general teaching strategies using reflection effective questioning, and the clinical conference
2. Discuss factors affecting selection of teaching methods (Gaberson and colleagues, 2015)
3. Identify a variety of strategies for teaching students at different levels in BSN Program
4. Identify characteristics of effective teachers in the clinical setting
5. Discuss the benefits/challenges of pre/post clinical conferences
6. Identify desired outcomes of clinical teaching and learning:
  - a. Knowledge; includes (all levels of the cognitive taxonomy)
  - b. Problem solving
  - c. Critical thinking
  - d. Decision making
  - e. Skills (psychomotor, interpersonal, organizational)
  - f. Cultural competency
  - g. Ethical decision making
  - h. Importance of reflection for the student and teacher
  - i. Pre, post conference content

### **Content Outline:**

- Rule #1: Students will make mistakes; important that student learn to correct and prevent mistakes and...
- Rule #2: The teacher is responsible for setting and maintaining the climate during the clinical day.
- Teacher versus Learner-selected assignments: how to select a patient assignment
- The importance of emotional intelligence while working with students
  - Don't get mad
  - Don't embarrass
  - Always think positively until proven wrong
  - Remember, your responsibility is the student, but also student effect on staff and patient population
  - THEREFORE, consider the value of flexibility, quality of discourse, and concern for the student during the clinical day
  - Be purposeful as you consider the emotions of the student and yourself during the clinical day.

- Consider relational aspects on the unit between students, nurses, and ancillary staff
  - Interface of student/patient/teaching cultural beliefs and behaviors
  - Describe roles and relationship of student/faculty in the teaching/learning experience
  - Maintaining balance of patient/student needs
  - Can start with their personal experience as student describing positive teaching experience and worst teaching experience; impact on how they will teach
  - Balancing patient safety, comfort and needs with student needs as they may be trying new skills for first time
  - Opportunity for second attempts/building confidence
  - Techniques faculty can use to minimize stress (be ready to assist students or if needed take over if necessary)
- Discussion of questioning strategies (Gaberson and colleagues, 2015)
  - Convergent vs. Divergent questions
    - Guiding questions
    - Provisions of non-threatening environment for questions
    - Effective questions
- Staff preceptor responsibility; Staff as teachers
  - Differentiating student level (first semester vs. third semester) in expectation and teaching strategies
  - Paring student to care for one or more patients – initial clinical experience: Dyadic assignments
  - Teaching through role modeling (especially important in modeling communication with patients, families, staff, and physicians)
  - Peer teaching: further in program when students are in position to share information from their experience
  - Strategies for overseeing care: (reinforcing the RN is ultimately responsible)
  - Ongoing assignment changes and strategies to promote organizational skills
  - Role of staff as teacher: evaluating staff desire, readiness, and skill to teach
  - Use of clinical conference for mini-lectures; if information necessary for patient care has not been discussed in the classroom environment, this can be taught in post clinical conference
  - Techniques for establishing rigor; components of success in clinical practice  
Management of practice problems
  - Gatekeeper role of the clinical instructor; balancing role of student and patient need – some days some patients do not need a student
  - Post – clinical conference and use of SBAR/ concept mapping as presentation modality
  - Making patient rounds to learn from each other; can be done on unit and then as part of clinical post conference

- Reflective evaluation of clinical day (clinical conference)
- Reflective summative evaluation of clinical experience in post-conference
  - May also use clinical log (see in manual)

**Module 6: *Evaluation of Clinical Performance/ Objectives:***

1. Discuss relationship between teaching and evaluation
2. Differentiate between formative and summative evaluation
3. Discuss strategies for providing feedback to students about progress, strengths, and areas needing improvement
4. Discuss importance of and strategies for, documenting student progress in meeting clinical learning objectives
5. Discuss strategies for evaluating students' written assignments related to clinical practice
6. Critique selected clinical performance evaluation tools
7. Identify components of the clinical journal with evaluation as to use of
8. Discuss and identify standards for performance ratings
9. Review elements of the clinical journal and techniques of reflection

**Content Outline:**

- Role of evaluation in the teaching-learning process-formative and summative evaluation
- Maintain fairness in evaluation of clinical performance
- Review and use course objectives as a guide for determining level of expectation
- When does evaluation begin in the clinical teaching-learning process?
  - **“Sufficient learning time should be provided before performance is evaluated.”**
  - **What is learning time vs evaluation time**
- Strategies for data collection
  - Questioning/interviewing student
  - Direct observation
  - Indirect observation (care plans, progress notes, etc.)
  - Check lists
  - Anecdotal notes
  - Clinical logs or journals
  - Reflection of practice
- Strategies for student evaluation
  - Garman
  - Bondy
- Standards for assessing performance levels in clinical practice
  - Unacceptable
  - Satisfactory
  - Outstanding
- Communicating your observations and assessments to the students
  - Feedback on written assignments
  - Individual teacher-student conference
  - Differentiating between standards for assessing performance (see above)
  - Value and appropriateness of seeking a second opinion

APPENDIX B  
INFORMED CONSENT FOR THE PARTICIPANTS

## University of Alabama Individual's Informed Consent for a Non-Medical Study

You are being asked to take part in a research study. This study is called "Developing Expert Clinical Educators in Nursing." The study is being done by Ms. Jeannie Weston, who is a doctoral student at the University of Alabama. Ms. Weston is being supervised by Dr. Stephen Tomlinson who is a professor of education the University of Alabama.

### **What is this study about?**

Clinical teaching requires that clinical instructors be competent educators as well as clinical nursing experts capable of assuming legal and ethical responsibility for student learning and for patient care. While nurse clinicians hired for clinical teaching may have a strong sense of efficacy and competence for their area of expertise, they may have little sense of self-efficacy for the role of clinical instructor or teacher in the clinical setting. Additionally, nurse clinicians may have limited orientation to teaching in the clinical setting due several factors. These include the lack of a program for clinical education, as well as limited time and resources for participation in a program for clinical instruction.

For these reasons, a program called the CLINICAL INSTRUCTOR PROGRAM or CIP has been developed by this investigator. The program has been developed to meet your need for clinical education for teaching in the clinical setting. The aim of the study is to test the effectiveness of the CIP through your participation and evaluation of the program.

### **Why is this study important?**

The results of this study will help nurse educators understand better ways to prepare expert clinicians such as yourself to teach effectively in the clinical practice setting. The study could also show that online programs of clinical education promote feelings of efficacy for clinical teaching.

### **Why have I been asked to be in this study?**

You have been asked to be in this study because you have been recently hired as a clinical instructor in the clinical practice setting.

### **How many people will be in this study?**

There are 40 nurse clinicians asked to participate in the study.

### **What will I be asked to do in this study?**

1. If you agree to be in this study, you will be asked to do the following: (1) access the online website for this study after which you will take a 39 item pre-test called the SETTI (Self-Efficacy Toward Teaching Inventory). (2) after completion of this test, you will be asked to view six modules plus one introductory module; each module will be less than 18 minutes in length. (3) after completion of each module, you will be asked to answer two quiz questions that reflect content of the module. (4) upon completion of the modules, you will be asked to complete the SETTI again.

**How much time will I spend being in this study?**

Completion of the SETTI items should take about 10 to 15 minutes. Each Module is less than 18 minutes. Total time that you will spend will be less than 3 hours.

**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?**

You will not receive money for your time in the study; it is hoped that the instruction will be valuable for your teaching role.

**What are the risks (dangers or harms) to me if I am in this study?**

There are minimal risks from being in this study.

**What are the benefits (good things) that may happen if I am in this study?**

You will benefit from taking by developing the skills needed for clinical teaching. You will also be helping nurse educators develop programs of clinical education.

**How will my privacy be protected?**

The only place your name will appear in connection with the study is on this informed consent form. The primary investigator, Ms. Weston, will collect and maintain all consent forms in a sealed envelope that will be locked in a file drawer in her office.

**How will my confidentiality be protected?**

You will access the website anonymously. The investigator will only report group data; no information about you as an individual will appear anywhere. The statistics will be used to write a dissertation. In addition, the data may be used to write research articles and make professional presentations; but participants will be identified only as “a nurse clinician from a large public university in the southeast United States”.

**What are the alternatives to being in this study?**

The alternative to being in the study is not to participate.

**What are my rights as a participant in this study?**

Taking part in this study is voluntary. It is your choice. You can refuse to be in the study or if you start the study and find you cannot complete it, you can stop at any time. There will be no effect on your relations with the University of Alabama, University of Alabama at Huntsville, Kennesaw University, or Emory University.

The University of Alabama Institutional Review Board (“the IRB”) is the committee that protects the rights of people in research studies. The IRB may review study records from time to time to be sure that people in research studies are being treated fairly and that the study is being carried out as planned.

**Who do I call if I have questions or problems?**

If you have questions, concerns, or complaints about the study later on, please call the investigator, Ms. Weston at 404 754-4935 or email [eghjh@emory.edu](mailto:eghjh@emory.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://osp.ua.edu/site/PRCO\\_Welcome.html](http://osp.ua.edu/site/PRCO_Welcome.html) or email the Research Compliance office at [participantoutreach@bama.ua.edu](mailto:participantoutreach@bama.ua.edu).

After you participate, you may complete the survey for research participants that is online at the outreach website listed above 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. This is not necessary for study participation however.

I have read this consent form. I have had a chance to ask questions. I agree to take part in it and I am at least 18 years old.

I will receive a copy of this consent form to keep.

\_\_\_\_\_  
Signature of Research Participant Date

\_\_\_\_\_  
Signature of Investigator Date

APPENDIX C

SELF-EFFICACY TOWARD TEACHING INVENTORY (SETTI)  
FOR STUDY PARTICIPANTS

**Self-Efficacy Toward Teaching Inventory (SETTI) for Study Participants**

Adapted by Jeannie Weston, 2015. Do not use without permission.

Please rate 1-4 your feelings of self-efficacy/confidence for teaching in clinical teaching.	Not Confident			Completely Confident
How confident are you in your ability to...	1	2	3	4
1. state goals and objectives clearly for students coming into the clinical setting?				
2. conduct post-clinical conferences, drawing students into discussions?				
3. teach students to communicate in SBAR?				
4. orient students to the clinical setting?				
5. identify the process of formative and summative evaluations?				
6. identify components of patient care necessary for discussion in post-clinical conferences?				
7. select and use a variety of teaching strategies during the clinical day?				

<b>8. respond to student's emotional reactions in the clinical setting?</b>				
<b>9. use the Synergy Model in student and staff interactions while in the clinical setting?</b>				
<b>10. communicate at a level that matches students' ability to comprehend?</b>				
<b>11. ask open, stimulating questions in the clinical setting?</b>				
<b>12. recognize and respect individual differences of students, staff and patients and families in the clinical setting?</b>				
<b>13. manage student disagreements while in the clinical setting or during clinical conference?</b>				
<b>14. communicate consistently both verbally and non-verbally with the student in the clinical setting?</b>				
<b>15. show respect for student ideas and abilities during the clinical day?</b>				
<b>16. respond appropriately to students' questions?</b>				

<b>17. respond to student emotional reactions during their clinical experience?</b>				
<b>18. integrate reading and classroom content into the clinical experience?</b>				
<b>19. make the student assignment challenging, based on student level of readiness?</b>				
<b>20. assess effectiveness of the clinical assignment?</b>				
<b>21. develop teaching strategies that promote critical thinking for students in the clinical setting?</b>				
<b>22. set clinical expectations that are appropriate for the level of the learner, given the learners' academic and clinical background?</b>				
<b>23. modify clinical strategies based on learner's level of performance?</b>				
<b>24. ask questions in a lab or clinical setting that stimulate problem-solving and critical thinking?</b>				

<b>25. provide constructive feedback about clinical performance?</b>				
<b>26. demonstrate feelings of confidence to the student?</b>				
<b>27. assist student in new patient care situations?</b>				
<b>28. stimulate the student to want to learn professional behavior and competence?</b>				
<b>29. adjust clinical and lab assignments to individuals' level of performance and confidence?</b>				
<b>30. use evaluation criteria to determine student's lab and clinical performance?</b>				
<b>31. keep a record of, and use subjective observations as part of clinical and lab evaluation?</b>				
<b>32. identify a student having difficulty in the clinical setting?</b>				

<b>33. direct or advise students who are experiencing academic or clinical difficulty?</b>				
<b>34. conclude a student`s clinical or lab performance as failing?</b>				
<b>35. confront and discuss a failing clinical grade with the student ?</b>				
<b>36. use self-evaluation and reflection in teaching?</b>				
<b>37. provide constructive feedback for the student in the clinical setting?</b>				
<b>38. use summative and formative methods to evaluate students ?</b>				
<b>39. use reflection to evaluate the clinical practice day?</b>				

APPENDIX D

SELF-EFFICACY TOWARD TEACHING INVENTORY (SETTI)  
RATING BY NURSE EXPERTS FOR ITEM RELEVANCE

**Self-Efficacy Toward Teaching Inventory (SETTI)**

Rating by Nurse Experts for Item Relevance

Adapted by Jeannie Weston, 2015. Do not use without permission.

<b>Please rate 1-4 the relevance of the following questions to feelings of self-efficacy for teaching in clinical teaching.</b>	<b>Not Relevant</b>	<b>Somewhat Relevant</b>	<b>Quite Relevant</b>	<b>Completely Relevant</b>
<b>How confident are you in your ability to...</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>1. state goals and objectives clearly for students coming into the clinical setting?</b>				
<b>2. conduct post-clinical conferences, drawing students into discussions?</b>				
<b>3. teach students to communicate in SBAR?</b>				
<b>4. orient students to the clinical setting?</b>				
<b>5. identify the process of formative and summative evaluations?</b>				
<b>6. identify components of patient care necessary for discussion in post-clinical conferences?</b>				

<b>7. select and use a variety of teaching strategies during the clinical day?</b>				
<b>8. respond to student's emotional reactions in the clinical setting?</b>				
<b>9. use the Synergy Model in student and staff interactions while in the clinical setting?</b>				
<b>10. communicate at a level that matches students' ability to comprehend?</b>				
<b>11. ask open, stimulating questions in the clinical setting?</b>				
<b>12. recognize and respect individual differences of students, staff and patients and families in the clinical setting?</b>				
<b>13. manage student disagreements while in the clinical setting or during clinical conference?</b>				
<b>14. communicate consistently both verbally and non-verbally with the student in the clinical setting?</b>				
<b>15. show respect for student ideas and abilities during the clinical day?</b>				

<b>16. respond appropriately to students' questions?</b>				
<b>17. respond to student emotional reactions during their clinical experience?</b>				
<b>18. integrate reading and classroom content into the clinical experience?</b>				
<b>19. make the student assignment challenging, based on student level of readiness?</b>				
<b>20. assess effectiveness of the clinical assignment?</b>				
<b>21. develop teaching strategies that promote critical thinking for students in the clinical setting?</b>				
<b>22. set clinical expectations that are appropriate for the level of the learner, given the learners' academic and clinical background?</b>				
<b>23. modify clinical strategies based on learner's level of performance?</b>				

<b>24. ask questions in a lab or clinical setting that stimulate problem-solving and critical thinking?</b>				
<b>25. provide constructive feedback about clinical performance?</b>				
<b>26. demonstrate feelings of confidence to the student?</b>				
<b>27. assist student in new patient care situations?</b>				
<b>28. stimulate the student to want to learn professional behavior and competence?</b>				
<b>29. adjust clinical and lab assignments to individuals' level of performance and confidence?</b>				
<b>30. use evaluation criteria to determine student's lab and clinical performance?</b>				
<b>31. keep a record of, and use subjective observations as part of clinical and lab evaluation?</b>				

<b>32. identify a student having difficulty in the clinical setting?</b>				
<b>33. direct or advise students who are experiencing academic or clinical difficulty?</b>				
<b>34. conclude a student`s clinical or lab performance as failing?</b>				
<b>35. confront and discuss a failing clinical grade with the student ?</b>				
<b>36. use self-evaluation and reflection in teaching?</b>				
<b>37. provide constructive feedback for the student in the clinical setting?</b>				
<b>38. use summative and formative methods to evaluate students ?</b>				
<b>39. use reflection to evaluate the clinical practice day?</b>				

APPENDIX E

DEVELOPING EXPERT CLINICAL EDUCATORS IN NURSING: RATING OF THE  
RELEVANCE OF EACH MODULE TO CLINICAL EDUCATION  
BY EXPERT NURSE CLINICIANS

**Developing Expert Clinical Educators in Nursing: Rating of the relevance of each module to clinical education by expert nurse clinicians. Copyright Jeannie Weston**

<b>Rating Scale: Please rate 1-4 the relevance of each module for clinical education.</b>	<b>Not relevant</b>	<b>Somewhat relevant</b>	<b>Quite relevant</b>	<b>Highly relevant</b>
<b>Score</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>1. Module one: Philosophy of Clinical Teaching and Learning</b>				
<b>2. Module 2: Orienting Students to the Clinical Setting</b>				
<b>3. Module 3: Curriculum/ Course Overview: The Context for Clinical Teaching</b>				
<b>4. Module 4: Making Clinical Learning Assignments</b>				
<b>5. Module 5: Clinical Teaching Strategies</b>				
<b>6. Module 6: Evaluation of Clinical Performance</b>				

APPENDIX F

PERMISSION TO USE THE MODIFIED VERSION OF THE SELF-EFFICACY  
QUESTIONNAIRE (SETTI)

**DR. MARTHA BRADSHAW**  
**6954 Kingsbury Drive**  
**Dallas, TX 75231**

February 2015

Jeannie Weston, MS, CNS, BSN  
Clinical Instructor, Pediatric Nursing  
Nell Hodgson Woodruff School of Nursing  
Emory University  
1520 Clifton Road, NE  
Atlanta, GA 30322

Dear Ms. Weston:

Thank you for your interest in the modified version of the Self-Efficacy Questionnaire (SETTI) tool that was used in my research with Dr. Katherine Nugent.

As you explained to me, you wish to use this tool, or a version thereof, as part of your work toward your doctoral dissertation. I am giving you permission to use the tool and appreciate the acknowledgements that you will provide in your final work.

Best wishes to you as you complete your doctorate.  
Sincerely,



Martha J. Bradshaw, PhD, RN  
Consultant  
Professional Writing  
Nursing Education

APPENDIX G

CONSENT FOR ADAPTATION OF THE SELF-EFFICACY TOWARD TEACHING  
QUESTIONNAIRE (SETTI) BOLTON (2011)

## Permission to Adapt

Kristen Bolton [kmf@queensu.ca]



To: [Weston, Jeannie](#)

Thursday, February 05, 2015 3:53 PM

- You replied on 2/5/2015 3:57 PM.

Hi Jeannie,

Please accept this email as my permission to use and adapt the self-efficacy post-test tool used in my thesis titled, "EFFECTS OF AN ONLINE EDUCATION PROGRAM ON SELF-EFFICACY AND KNOWLEDGE OF THE CLINICAL TEACHER ROLE: A STUDY WITH NURSING CLINICAL INSTRUCTORS."  
Thank you and good luck with your dissertation.  
Kristen Bolton

APPENDIX H  
DEMOGRAPHIC DATA QUESTIONNAIRE

**Tell Us About Yourself**

1. What is your role in nursing? Staff nurse, adjunct faculty, serving as preceptor, other (specify \_\_\_\_\_)
2. Are you **Male** \_\_\_\_ **Female** \_\_\_\_
3. What is your year of birth? \_\_\_\_\_
4. What is the highest level of education you have completed?  
Undergraduate \_\_\_\_ **Master's** \_\_\_\_ **Doctoral** \_\_\_\_ **Other (please specify)** \_\_\_\_\_
5. Have you had any previous training or participated in any professional development activities to help you develop your skills for clinical instruction?  
**Yes** \_\_\_\_ **No** \_\_\_\_  
If yes, please describe.

## APPENDIX I

### EXPERT RATINGS OF THE SETTI: CONTENT VALIDITY INDEX

(A rating of 3 or 4 is scored as agreement)

Questions	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	Item Content Validity
1.	4	4	4	4	4	1.00
2.	4	4	4	4	4	1.00
3.	3	4	4	4	4	1.00
4.	4	4	4	4	4	1.00
5.	4	3	4	2	4	.80
6.	4	4	4	4	4	1.00
7.	4	3	4	4	4	1.00
8.	4	3	4	4	4	1.00
9.	3	4	3	3	4	1.00
10.	4	3	4	4	4	1.00
11.	4	4	4	4	4	1.00
12.	4	3	4	4	4	1.00
13.	4	3	4	4	4	1.00
14.	4	3	4	4	4	1.00
15.	4	4	4	4	4	1.00
16.	4	4	4	4	4	1.00
17.	4	4	4	4	4	1.00
18.	4	3	4	4	4	1.00
19.	4	3	4	4	4	1.00
20.	4	3	4	4	4	1.00
21.	4	4	4	4	4	1.00
22.	4	4	4	4	4	1.00
23.	4	4	3	4	4	1.00
24.	4	4	4	4	4	1.00
25.	4	4	4	4	4	1.00
26.	4	4	4	4	4	1.00
27.	4	4	4	4	4	1.00
28.	4	4	4	4	4	1.00
29.	4	4	4	4	4	1.00
30.	4	4	4	4	4	1.00
31.	4	4	4	4	4	1.00
32.	4	3	4	4	4	1.00
33.	4	3	4	4	4	1.00
34.	4	4	3	4	4	1.00
35.	4	4	4	4	4	1.00
36.	4	4	4	4	4	1.00
37.	4	4	4	4	4	1.00
38.	4	4	4	4	4	1.00
39.	4	4	4	4	4	1.00

## APPENDIX J

### CONTENT VALIDITY INDEX (CVI): RATING OF MODULES BY NURSE EXPERTS

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Modules	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	CVI
1.	3	4	2	4	4	.80
2.	3	4	4	4	4	1.00
3.	2	4	4	4	4	1.00
4.	4	3	4	4	4	1.00
5.	4	3	4	4	4	1.00
6.	4	4	4	4	4	1.00

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APPENDIX K  
APPROVAL LETTERS

Office for Research  
Institutional Review Board for the  
Protection of Human Subjects

THE UNIVERSITY OF  
**ALABAMA**  
R E S E A R C H

November 20, 2015

Jeannie Weston  
ELPTS  
College of Education  
The University of Alabama  
Box 870302

Re: IRB # 15-OR-269 (Revision) "Developing Expert Clinical Educators in Nursing"

Dear Ms. Weston:

The University of Alabama Institutional Review Board has reviewed the revision to your previously approved expedited protocol. The board has approved the change in your protocol.

Please remember that your approval period expires one year from the date of your original approval, September 8, 2015, not the date of this revision approval.

Should you need to submit any further correspondence regarding this proposal, please include the assigned IRB application number. Changes in this study cannot be initiated without IRB approval, except when necessary to eliminate apparent immediate hazards to participants.

**Please provide a copy of the UAH IRB approval/determination letter to the ORC for our files once received. Please be aware that any changes requested by the UAH IRB must be incorporated into the UA IRB application and submitted as a modification prior to beginning research at that site.**

Good luck with your research.

Sincerely,

  
Carpantato T. Myles, MSM, CIM, CIP  
Director & Research Compliance Officer  
Office for Research Compliance



358 Rose Administration Building  
Box 870127  
Tuscaloosa, Alabama 35487-0127  
(205) 348-8461  
fax (205) 348-7189  
TOLL FREE (877) 820-3066



November 24, 2015

Ms. Jeannie Weston  
College of Education  
University of Alabama

Dear Ms. Weston,

The UAH Institutional Review Board of Human Subjects Committee has reviewed your proposal, *Developing Expert Clinical Educators in Nursing*, and found it meets the necessary criteria for continued approval. Your proposal seems to be in compliance with this institutions Federal Wide Assurance (FWA) 00019998 and the DHHS Regulations for the Protection of Human Subjects (45 CFR 46).

Please note that this approval is good for one year from the date on this letter. If data collection continues past this period, you are responsible for processing a renewal application a minimum of 60 days prior to the expiration date.

No changes are to be made to the approved protocol without prior review and approval from the UAH IRB. All changes (e.g. a change in procedure, number of subjects, personnel, study locations, new recruitment materials, study instruments, etc) must be prospectively reviewed and approved by the IRB before they are implemented. You should report any unanticipated problems involving risks to the participants or others to the IRB Chair.

If you have any questions regarding the IRB's decision, please contact me.

Sincerely,



William Wilkerson  
IRB Chair  
Dean, Honors College

**OFFICE OF THE VICE PRESIDENT FOR RESEARCH**  
Von Braun Research Hall M-17

Huntsville, AL 35899

T 256.824.6100

F 256.824.6783



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September 25, 2015

Jeannie Weston, MSN, RN  
Nell Hodgson Woodruff School of Nursing  
Emory University  
1520 Clifton Road, NE  
Atlanta, GA 30322-4027

**RE: Determination: Not Engaged in Human Subjects Research; IRB Review Not Required  
IRB00084334; *Developing Expert Clinical Educators in Nursing*  
PI: Jeannie Weston**

Dear Jeannie:

Thank you for requesting a determination from our office about the above-referenced project. Based on our review of the materials you provided, we have determined that it does not require Emory University IRB review because you and Emory will not be "engaged" in research. To reach this conclusion we consulted the current guidance on engagement issued by the U.S. Office for Human Research Protections.

Specifically, in this project, you will implement the Clinical Instructor Program to test the newly designed nursing education program for effectiveness in improving self-efficacy and knowledge among nurses. You will conduct the research under your affiliation with the University of Alabama, thus Emory University is not engaged in the research. This determination is based on OHRP engagement guidance B. 5. Institutions (e.g., schools, nursing homes, businesses) that permit use of their facilities for intervention or interaction with subjects by investigators from another institution.

This determination could be affected by substantive changes in your role or Emory's role in the project. If such changes occur, please contact our office for clarification.

Thank you for consulting the IRB.

Sincerely,



Carolyn Sims, MPA  
Research Protocol Analyst

October 15, 2015

Jeannie Weston, EdD Candidate, MS, BSN  
Clinical Instructor, Pediatric Nursing  
Nell Hodgson Woodruff School of Nursing  
Emory University  
1520 Clifton Road, NE  
Atlanta, GA 30322

Dear Ms. Weston,

The Kennesaw State University (KSU) Institutional Review Board (IRB) has administratively examined your study materials entitled Developing Expert Clinical Educators in Nursing (protocol ID: 7005) that were reviewed and approved by the University of Alabama IRB. You are granted permission to recruit participants for this research project on the KSU campus from October 14, 2015 through October 13, 2016.

Dr. Rebecca Shabo of the KSU Wellstar School of Nursing has agreed to assist you in disseminating information regarding your study. All recruitment efforts are to be coordinated through Dr. Shabo. In addition, any email recruitment must conform to the KSU Mass Email Policy and must contain information indicating the study has been approved by the IRB along with the IRB study number at the beginning of the message.

Please note that permission to recruit is not an IRB review, and applying to recruit does not serve as or replace review by an IRB. The University of Alabama IRB retains responsibility for conducting all required continuing reviews of the study, and all unanticipated problems or adverse events related to the study must be reported to the home IRB. Should the study receive a continuing review or be submitted to the home IRB for review and approval of study revisions, you must reapply for permission to recruit research participants at KSU. This is accomplished through submission of copies of revised documents, including the most recent approval documents. Following assessment of these documents, a subsequent letter of permission to recruit may be issued.

Should you have questions, please contact the board by telephone at (470) 578-2268 or by email at [irb@kennesaw.edu](mailto:irb@kennesaw.edu).

Sincerely,

Christine Ziegler, Ph.D.  
Professor of Psychology  
Director and Chair, KSU IRB

APPENDIX L  
QUIZ QUESTIONS

## **Module 1: Philosophy**

Our philosophy for teaching helps us:

- a. to understand our role
- b. determine our approach to teaching
- c. determine our approach to student evaluation
- d. all of the above

A climate of trust and mutual respect is essential to support student learning and growth.

This climate should be established:

- a. during the orientation day
- b. midway through the clinical rotation
- c. when the student has problems
- d. during the evaluation time

## **Module 2: Orienting students to the Clinical setting**

This module is based on which of Dr. Gaberson's elements?

- a. A climate of trust and mutual respect
- b. Clinical teaching is more important than classroom teaching
- c. Clinical teaching should focus on essential knowledge, skills and attitudes
- d. All of the above

SBAR stands for:

- a. Situation, blending, assessment, and recommendation
- b. Situation, background, assessment, and rights of the patient
- c. Situation, background, assessment, and recommendation
- d. Situation, background, intervention and recommendation

## **Module 3: Curriculum/Course Overview**

The two new elements in this module are:

- a. Clinical teaching is more important than classroom teaching and clinical teaching should include essential knowledge and attitudes
- b. Clinical education should reflect professional practice and the espoused curriculum may not be the curriculum in use
- c. A & B
- d. Neither of the above

### **Module 3 continued**

The cognitive domain of the curriculum includes all of the following except:

- a. problem solving
- b. critical thinking
- c. decision making
- d. psychomotor skills

### **Module 4: Making clinical learning assignments:**

Considerations in making the clinical learning assignment include:

- a. patient acuity
- b. support from nursing staff
- c. number of students
- d. all of the above

Benefits of dual assignments include all of the following except:

- a. collaboration between students
- b. delegation
- c. fewer patients that you are responsible for
- d. more patients that you are responsible for

### **Module 5: Clinical teaching strategies:**

Reflection as a strategy for teaching should occur:

- a. when planning for the clinical experience
- b. during the clinical teaching day
- c. during the post- evaluation of the clinical day
- d. all of the above

Strategies useful for clinical teaching include:

- a. questioning
- b. reflection
- c. knowledge of student level
- d. all of the above
- e. a and b only

## **Module 6: Evaluation**

Feedback should be:

- a. precise, with exact discussion of the problem
- b. be verbal and visual
- c. occur immediately when the problem occurs
- d. all of the above

A major issue in the formative evaluation process is bias

- a. True
- b. False

APPENDIX M

TABLE OF CONTENTS FOR CIP MANUAL

### **Module One**

1. Ironside, P.M., McNelis, A.M. (2014). Clinical education in nursing: Rethinking learning in practice settings. *Nursing Outlook*, 62m 185-191. [www.nursingoutlook.org](http://www.nursingoutlook.org)

### **Module Two**

1. Green, D.A., (2006). A synergy model of nursing education. *Journal for Nurses in Staff Development*. 22, 277-283.
2. SBAR Guidelines: adapted from <http://www.ihl.org/THI/Topics/PatientSafety/SafetyGeneral/Tools?SBARTechniqueCommunication/SituationalBriefingModel.htm>
3. Cards developed by Jeannie Weston
  - a. Time management for a clinical day
  - b. Patient assignment work sheet
  - c. Information for a clinical experience
  - d. Student information sheet
  - e. Pathophysiology of labs
  - f. Glasgow coma scale for adults and children
  - g. Pediatric vital signs
  - h. Assessment

### **Module Three:**

1. A model of ethical decision making: Jonsen, A.R., Siegler, M., Winslade, W.J. (2002). Clinical Ethics: A practical approach to ethical decisions. *Clinical Medicine*. McGraw-Hill Medical Publishing Division.

### **Module Four:**

1. Instructor assignment sheet developed by Jeannie Weston

### **Module Five:**

1. Allen, D.E., Ploeg, J., Kaasalainen, S., (2012). The relationship between emotional intelligence and clinical teaching effectiveness in nursing faculty. *Journal of Professional Nursing*, 28,233-239.

### **Module Six:**

1. Caputi, L. (2013). A practical approach to teaching clinical reasoning. *Elsevier/Mosby's Faculty Development Institute*.
2. Anthony, M.L., Wickman, M., (2015). Precepting challenges: The unsafe Student. *Nurse Educator*. 40, 113-114.
3. Bondy, K.N. (1983). Criterion-referenced definitions for rating scales in clinical evaluation. *Journal of Nursing Education*. 22, 376-382.
4. Chen, A. (2014). Clinical Conference Tool: For formative and Summative Use. (unpublished).