MEASURING NURSE EDUCATOR CONFIDENCE
IN CLINICAL TEACHING COMPETENCE

by

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Submitted in fulfilment of the requirements for the degree of

Doctor of Philosophy

Deakin University

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CONFIDENCE IN CLINICAL TEACHING COMPETENCE
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Abstract

**Background:** Teaching of nursing in clinical environments is considered complex and multi-faceted. The challenges associated with the transition from nurse clinician to the role of clinical nurse educator have been described extensively in Western literature. However, little is known about the role of clinical nurse educator generally and the specific aspect of transition from clinician, or in some cases from bachelor student to that of clinical nurse educator, in developing countries. There is also currently no valid and reliable instrument to measure role confidence among clinical nurse educators.

**Aim:** To (1) develop and validate an instrument to rigorously measure aspects of role confidence in clinical nurse educators; and (2) to explore nurse educators’ perceived confidence and associated factors to confidence development.

**Design:** Multi-phase multi-setting descriptive survey study.

**Method:** Cross-sectional surveys have been used to collect data via web-based and paper-based modes. Data were analysed using Statistical Package for the Social Sciences (SPSS) version 22.0.

**Research setting and participants:** The study included 36 nursing institutions throughout Vietnam. In total 692 clinical nurse educators who were teaching nursing students in medical and surgical clinical placements participated in three phases of this study (Phase One: \( n = 104 \), Phase Two: \( n = 254 \), Phase Three: \( n = 334 \)).

**Results:** The Clinical Nurse Educator Skill Acquisition Assessment (CNESAA) instrument has been developed and validated. Reliability and validity of the CNESAA were fully established through a rigorous process. Clinical nurse educators in Vietnam were recruited from three groups: (1) new Bachelor of Nursing graduates; (2) experienced nurses or nurse educators; and (3) those who did not have a background in
nursing. The three most common institutional methods of preparation for clinical nurse educators included: workshops in clinical nursing education, pedagogical courses and teaching in simulation laboratories prior to clinical teaching. The majority of the participants perceived their confidence in clinical teaching competence to be at moderately high and high levels. Recruitment methods, institutional preparation methods, qualification, experience in the role and educator–student ratio significantly affected clinical nurse educator perceptions of confidence in their clinical teaching competence. Facilitators of their confidence development were workshops in clinical nursing education, a period of simultaneous practice and clinical teaching in the early stage of transition to the role, pedagogical courses, postgraduate qualification and years of experience in clinical teaching (from 5 to 20 years). Barriers to confidence development were informal mentorship, prolonged experience in clinical teaching (more than 20 years) and high ratios between the clinical nurse educator and students.

**Limitations:** The CNESAA instrument was established with high internal reliability, content and convergent validity, its discriminant validity was however low. This suggests an area for re-application of a confirmatory factor analysis in another population to enhance the discriminant validity of the CNESAA. Participant subjectivity inherent in most survey research might also be unavoidable in this study despite numerous attempts. While the concepts of confidence and competence are linked, this study has only addressed the confidence aspect. There is a need to explore the competence aspect of nurse educators in their clinical teaching role in the future.

**Conclusion:** The CNESAA is a potential instrument to measure the perceived confidence of clinical nurse educators in their role. Evidence regarding the correlations between institutional preparation, recruitment methods, educator–student ratio and the
clinical nurse educator skill acquisition process is important to the design of evidence-based methods to effectively and efficiently recruit and prepare nurse educators for their complex clinical teaching role in Vietnam, as well as in other settings. The substantial percentage of clinical nurse educators without nursing qualifications or practical experience as nurse clinicians raises concern about the current recruitment methods of clinical nurse educators and their impact on students’ socialisation to the nursing profession in Vietnam.

*Keywords*: clinical education, clinical teaching, instrument development, nursing, perceived confidence, Vietnam.
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List of publications, presentations and awards

Conference papers


Annual Research School of Nursing and Midwifery presentations


Scholarships, grants and awards

- 2015: Excellence in Educational Research award finalist. This was an award for the top-scored abstract among the 915 submissions to the 26th International Nursing Research Congress based on the research’s multi-site scope, multinational implications, impact on nursing education, robust design, significance of the result and innovative methods. The award was given by the Sigma Theta Tau International & Chamberlain College of Nursing – Centre for Excellence in Nursing Education.
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- 2015: Edith Anderson Leadership Education Grant (travel grant from the Sigma Theta Tau International).
- 2015: Three-Minute Thesis (3MT), School of Nursing and Midwifery – winner
- 2016: School of Nursing and Midwifery Scholarship Award. This is a scholarship award for outstanding research to an international student enrolled in the PhD program at the School of Nursing and Midwifery, Deakin University, Melbourne, Australia.
### List of abbreviations

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<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>ANOVA</td>
<td>analysis of variance</td>
</tr>
<tr>
<td>AGFI</td>
<td>adjusted goodness of fit index</td>
</tr>
<tr>
<td>ASEAN</td>
<td>Association of Southeast Asian Nations</td>
</tr>
<tr>
<td>ASV</td>
<td>average shared squared variance</td>
</tr>
<tr>
<td>AVE</td>
<td>average variance extraction</td>
</tr>
<tr>
<td>CR</td>
<td>construct reliability</td>
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<tr>
<td>CNE</td>
<td>clinical nurse educator</td>
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<tr>
<td>CI</td>
<td>confidence interval</td>
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<tr>
<td>CFA</td>
<td>confirmatory factor analysis</td>
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<tr>
<td>CFI</td>
<td>comparative fitness index</td>
</tr>
<tr>
<td>CNESAA</td>
<td>Clinical Nurse Educator Skill Acquisition Assessment</td>
</tr>
<tr>
<td>EFA</td>
<td>exploratory factor analysis</td>
</tr>
<tr>
<td>FBNG</td>
<td>Friendship Bridge Nurses Group</td>
</tr>
<tr>
<td>HWA</td>
<td>Health Workforce Australia</td>
</tr>
<tr>
<td>GFI</td>
<td>goodness of fit index</td>
</tr>
<tr>
<td>LL</td>
<td>lower level</td>
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<tr>
<td>MSV</td>
<td>maximum shared variance</td>
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<tr>
<td>UL</td>
<td>upper level</td>
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<tr>
<td>RMSEA</td>
<td>root mean square error of approximation</td>
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<tr>
<td>SD</td>
<td>standard deviation</td>
</tr>
<tr>
<td>SPSS</td>
<td>Statistical Package for the Social Sciences</td>
</tr>
<tr>
<td>UK</td>
<td>United Kingdom</td>
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<td>USA</td>
<td>United States of America</td>
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Chapter One: Introduction

Clinical education is pivotal to nursing education. High-quality supervision and facilitation can provide students with professional guidance to develop clinical skills and to foster professional identity transformation and development (Ford et al., 2016; Jokelainen, Turunen, Tossavainen, Jamooskeah, & Coco, 2011). However, where supervision is suboptimal, student learning opportunities may be lost, learning outcomes may decrease, quality of patient care may be at risk and students may fail to develop the necessary professional competence (Hickey, 2010; Levett-Jones, Lathlean, McMillan, & Higgins, 2007; Mamchur & Myrick, 2003).

Clinical nurse educators (CNEs) are clearly important in driving student learning. The CNE–student relationship is said to have a profound impact on the quality of student clinical learning (Lawal, Weaver, Bryan, & Lindo, 2016; Papastavrou, Dimitriadou, Tsangari, & Andreou, 2016). The availability of effective CNEs positively encourages students to adopt deep and independent learning approaches and further helps them to successfully integrate theory and practice (Courtney-Pratt, FitzGerald, Ford, Marsden, & Marlow, 2012; D’Souza, Karkada, Parahoo, & Venkatesaperumal, 2015; Eta, Atanga, Atashili, & D’Cruz, 2011; Manninen, Henriksson, Scheja, & Silén, 2015; Myrick & Yonge, 2002). Conversely, negative supervision experiences and the inaccessibility of CNEs can discourage students and drive them to adopt superficial learning approaches (Courtney-Pratt et al., 2012; Myrick & Yonge, 2004; Tiwari et al., 2005). Clinical education and the role of CNEs are therefore instrumental in ensuring successful outcomes from clinical placement experience and the preparation of competent nurses. Despite a plethora of research in clinical nursing education, little is
known about evidence-based preparation and support programs that significantly contribute to the development of confidence and competence among CNEs. Likewise, there is no valid and reliable instrument measuring CNEs’ perceived confidence in their role.

Nursing in Vietnam is undergoing the process of reformation and professionalisation. The progress of this process substantially relies on the education of new graduates to the profession and therefore the role of nurse educators. There is, however, a lack of knowledge about how Vietnamese nurse educators are recruited, prepared and supported for their roles. In the transformation towards standard-based nursing curricula and improvement in the quality of nursing care in Vietnam, the role of the CNE is increasingly important. While there is a large body of literature exploring the role of CNEs in Western countries, this role is substantially under-investigated in Vietnam and relies upon research conducted in Western countries at the time of the transfer of education to the tertiary setting. As such, much of the research and many of the seminal references are now quite dated. The extent to which Vietnamese CNEs are confident in undertaking their role is unknown. The factors that facilitate or hinder the development of confidence and competence in these educators is also mostly unknown in this context. This research has been proposed in order to address these knowledge gaps, with a particular focus on Vietnamese CNEs’ perceived confidence in clinical teaching and associated factors. This chapter provides an overview of the context of this study, research questions, glossary of terms and structure of the thesis.

1.1. Background of the study

Clinical placements are an essential component of every nursing curriculum. Through clinical placements, nursing students are able to: integrate theoretical knowledge into the
planning and implementation of patient care; develop communication skills; practise ethical decision-making in real clinical situations; become socialised to the workplace environment; and function as a member of the healthcare team (Davidson & Rourke, 2012; Halcomb, Peters, & McInnes, 2012; Kapucu & Bulut, 2011; McKenna, McCall, & Wray, 2010; O'Connor, 2006; White & Ewan, 1991). In the context of the dynamic and complex settings of clinical placements, students need to be supervised, supported and facilitated in order to achieve described learning outcomes.

A variety of clinical nursing education models have been developed to support and facilitate student learning in clinical settings. The most common supervision models described in the literature include the faculty-supervised (accompanied) model, preceptorship and mentorship. The similarity between these models is that in each, those who supervise student learning have key responsibilities as educators, liaison persons, and evaluators or assessors. The distinctions between these models are related to the student ratio, whether the CNE is employed by the university or seconded from the practice setting (as a clinician) and whether there is involvement by the CNE in clinical practice and student assessment. Depending on these different models of clinical nursing education, CNEs are exposed to differing advantages and challenges in their role in the clinical setting.

Each model has its own unique characteristics. The faculty-supervised model, also referred to as the accompanied clinical supervision, traditional or cluster model, involves a group of students supervised by one CNE for a defined period of time (Gaberson & Oermann, 2010). The CNE–student ratio may vary from 1:6 to 1:10 (Budgen & Gamroth, 2008) but is often 1:8 (Conrick, Lucas, & Anderson, 2001; Gaberson & Oermann, 2010; Nash, 2007). In this model, CNEs are often faculty
members who are employed by an academic institution in America and Asia (Budgen & Gamroth, 2008; Lee, Kim, Roh, Shin, & Kim, 2007) or by either a university nursing school or a healthcare agency in Australia (Nash, 2007; Needham, McMurray, & Shaban, 2016). The title of the CNE and their involvement in direct patient care may vary across different countries (Budgen & Gamroth, 2008; McSharry, McGloin, Frizzell, & Winters-O'Donnell, 2010; Ramage, 2004).

Preceptorship and mentorship are defined as a one-on-one educational relationship between a qualified registered nurse and a student (Heffernan, Heffernan, Brosnan, & Brown, 2009; Huybrecht, Loeckx, Quaeyhaegens, De Tobel, & Mistiaen, 2011; Luhanga, Billay, Grundy, Myrick, & Yongeyy, 2010; Smedley, Morey, & Race, 2010). In some countries, the ratio can be greater than 1:1 (Barker, 2006; Luhanga et al., 2010). Preceptorship is considered a short-term, formal and intensive relationship with clear mutual objectives between the preceptor and preceptee (Happell, 2009; Heffernan et al., 2009; Hickey, 2010; Luhanga, Yonge, & Myrick, 2008). The nature of mentorship, however, is less formal, more supportive, more personal and longer in duration as compared to preceptorship (Barker, 2006; Huybrecht et al., 2011; Kaviani & Stillwell, 2000; McCarty & Higgins, 2003).

Studies with CNE participants from all models often report the experience and perception of inadequate and ineffective preparation, orientation and support for their clinical teaching role (Cangelosi, Crocker, & Sorrell, 2009; Cantwell, 2014; Heydari, Hosseini, & Moonaghi, 2015; Suplee, Gardner, & Jerome-D'Emilia, 2014; Williamson, Webb, & Abelson-Mitchell, 2004). Empirical evidence also indicates that insufficient preparation can negatively affect preparedness for the clinical teaching role, the development of confidence in clinical teaching and the quality of the clinical teaching
experience (Anibas, Brenner, & Zorn, 2009; Dempsey, 2007; Heydari et al., 2015; Manning & Neville, 2009). What is absent from the international literature is evidence to inform effective and efficient preparation programs that enhance CNEs’ confidence in their clinical teaching role.

The recruitment and preparation of qualified, confident and competent CNEs is essential to the education of competent future nurses. The development of confidence and competence in clinical teaching has not been explored in any depth regardless of where CNEs have been recruited from. These areas are important to the role of the CNE, as diminished confidence or lack of competence as a CNE may affect the experiences and outcomes of nursing students. Knowledge related to the recruitment of CNEs and their development of confidence in their role in developing countries, particularly in Vietnam, is an obvious gap. Given the importance of the CNE role to successful student learning in clinical settings, it is vital that further research is conducted to understand how nurses are recruited to the role in developing countries and what factors contribute to their role development, in particular their confidence as CNEs.

Clinical skills and expertise are thought to be essential to the role of CNEs and to successful learning experiences for students in clinical settings (Croxon & Maginnis, 2009). This is, however, a contentious area attracting a number of diverse arguments. It seems that clinical practice is often equated to clinical expertise, skill enhancement and the translation of clinical skills into educational ability; however, this may not be always the case (Elliott & Wall, 2008; Leonard, McCutcheon, & Rogers, 2016; Mann, 2013). Carter (2009) and Humphreys et al. (2000) argue that the focus of the CNE role is competence in teaching and facilitating student learning, rather than clinical practice.
Understanding how competence in clinical practice is conceptualised and assessed may help shed light on the measurement of competence in clinical teaching.

According to the *Cambridge Advanced Learner’s Dictionary* (2005, p. 250), ‘competence’ is defined as “the ability to do something well”. In the nursing context, there are three approaches to the conceptualisation of competence: behaviouristic (or reductionist), generic and holistic. The behaviouristic approach describes competence as an individual’s tasks and skills (McMullan et al., 2003; National Nursing Research Unit, 2009). In other words, performance is a construct of competence and thus direct observation of performance is the only way to measure competence (McMullan et al., 2003; National Nursing Research Unit, 2009). This approach is criticised for reducing the importance of underlying attributes that inform performance, ignoring the complexity of performance in practical settings and considering competence individualistic (McMullan et al., 2003). Moreover, assessing competence using observation is potentially subjective (Cant, McKenna, & Cooper, 2013), over-specified and influenced by the context (McMullan et al., 2003).

The generic approach conceptualises competence as a cluster of attributes associated with the expert performance of an individual regardless of context (McMullan et al., 2003). The holistic approach similarly refers to competence as a combination of multiple underlying attributes of an individual, but signifies the influence of context on an individual’s competence (McMullan et al., 2003; National Nursing Research Unit, 2009). Competence, in the holistic approach, is considered dynamic, relational, and a combination of knowledge, attributes, skills and values required for professional performance and judgment (McMullan et al., 2003; National Nursing Research Unit, 2009). This approach is regarded as the most complete and integrated conceptualisation,
and is widely accepted by nursing bodies in Australia, New Zealand, America and Canada (Vernon, Chiarella, & Papps, 2011). Nevertheless, there are potential issues inherent in the design, interpretation and delivery of the assessment methods that focus on assessing not only psychomotor but also cognitive and affective aspects of performance (Clifford, 1994). Assessing competence according to the holistic approach thus may not be simple and transparent, as compared to the behaviouristic approach (McMullan et al., 2003; Vernon et al., 2011).

According to the National Nursing Research Unit (2009) and FitzGerald, Walsh and McCutcheon (2001), competence is a complex concept and there is no gold standard in measuring clinical competence. Likewise, there is no valid and reliable instrument developed to measure CNEs’ competence in clinical teaching. However, it is known that the concepts of competence and confidence are inextricable (Bentley & Pegram, 2003). The interwoven nature of these two concepts has been intensively reported in many disciplines, including nursing and other health disciplines (Huiskamp, 2008; Kim, Lee, Eudey, & Dea, 2014; Stewart et al., 2000; Ulrich et al., 2010; Yuan, Williams, & Fang, 2012). It has been found that a gain in competence would contribute to an increase in confidence (Huiskamp, 2008) and that perceived confidence is linked to perceived competence in practice (Kim et al., 2014; Marshburn, Engelke, & Swanson, 2009; Stewart et al., 2000). Importantly, CNEs’ confidence is considered integral to effective clinical teaching (Singh et al., 2013; Tang, Chou, & Chiang, 2005). The development of an instrument to measure CNE confidence in acquiring clinical teaching skills at all stages of their career is therefore an essential step in measuring CNE competence in the future.
1.2. The Vietnamese context

Nursing is considered a relatively new discipline in Vietnam. During the wars in the 20th century, nursing personnel were briefly equipped with basic first aid knowledge to provide instant response to injured soldiers (Jones, O'Toole, Nguyen, Tran, & Pham, 2000). In the 1960s, official training programs for nurses were offered at medical schools at primary levels (six to twelve months) in North Vietnam (WHO, 2013b). Secondary educational programs (2.5 years) were commenced in hospital settings in the North in 1968 and in medical schools in the South (after reunification) in 1975 (WHO, 2013b). Two Bachelor of Nursing programs were piloted in the mid-1980s (WHO, 2013b). In 1990, the Vietnamese Nursing Association was established to lead the development and management of nursing in education and practice (WHO, 2013b). In 1996, under the support of the Vietnamese central government and the Friendship Bridge Nurses Group (FBNG), the Bachelor of Nursing program was implemented in three institutions (Jones et al., 2000). More than a decade later, the first Master of Nursing program was started in 2007, taught by nurse educators from the FBNG (Jarrett, Hummel, & Whitney, 2010).

The development of nursing in Vietnam is challenged by a number of barriers that are rooted in education and practice (Jones et al., 2000; Lewis, Mai, & Gray, 2012). Similar to neighbours such as Laos, Cambodia, Indonesia and Myanmar, nurse educators in Vietnam are suffering from entrenched shortages of human resources, lack of a mechanism to promote retention, difficulty in obtaining professional development and a lack of resources to support education and training (Kunaviktikul, Guptarak, & Juntasopeepun, 2014; WHO, 2013a). Nursing curricula have been primarily based on the medical model and mainly delivered by physicians, due to a critical shortage of qualified
nurses to teach nursing students, a problem spanning 30 years (Jones et al., 2000; Lewis et al., 2012; Pron, Zygmont, Bender, & Black, 2008). The prolonged medical focus in nursing curricula has overshadowed nursing care, promoted the culture of obedience and a task-focused approach, rather than critical thinking, autonomy and a collaborative approach to practice (Jones et al., 2000; Pron et al., 2008). Vietnamese nurse educators are also believed to have limited teaching experience and to be inadequately prepared to teach competency-based curricula (Chapman, Lewis, Osborne, & Gray, 2013; Lewis et al., 2012). Their traditional approach to teaching has been recognised as teacher-centred and focusing on passive rather than active learning (Chapman et al., 2013). The main model of clinical nursing education in Vietnam is the faculty-supervised model. While the ratio of a CNE to nursing students in this model is often 1:8 in other countries (Gaberson & Oermann, 2010), in Vietnam the ratio is 1:15 on average but can fluctuate from 1:10 to 1:25.

A driving force from the central government since 2006 has marked the beginning of the transformation of nursing in Vietnam. In 2006, the Vietnamese Government, together with nine counterparts in the Association of Southeast Asian Nations (ASEAN), signed the “ASEAN Mutual Recognition Arrangement on Nursing Services” to allow the mobility of nursing personnel within this region. The agreement facilitates information exchange, enhances cooperation, promotes the application of best practice in nursing and creates opportunities for nursing education within the region (WHO, 2016). This mutual recognition agreement has led to significant changes, especially in academic sectors, with a focus on the standardisation of Bachelor of Nursing programs, the transformation of nursing curricula to endorse nursing standards, the implementation of accreditation of health professionals and the increase in nursing
human resources, especially the percentage of university-prepared nurses (Chapman et al., 2013; Nguyen, 2010; WHO, 2013c).

It is worth noting that the presence of multiple levels\(^1\) of undergraduate education in nursing, compounded by the absence of a licensing mechanism, has affected the recognition of nursing as a profession in Vietnam (Asian Development Bank, 2013; Harvey, Calleja, & Phan Thi, 2013; Jones et al., 2000). The vast majority of the current nursing workforce has been prepared at either primary, secondary or collegial levels, while only approximately 14% hold Bachelor of Nursing qualifications (WHO, 2013b). According to Harvey et al. (2013), there is no distinction in the scope of practice of nurses regardless of the educational program undertaken, and this may contribute to the variation in quality of patient care observed in Vietnam. With concerns that nurses may not be adequately prepared for practice, the Vietnam Ministry of Health (2011) identified the need for a licensing mechanism in the health sector, issuing the circular 41/2011/TT-BYT directing the implementation of a licensing and accreditation system for health professionals (Vietnam Ministry of Health, 2011). However, the licensing system is yet to be uniformly implemented throughout Vietnam and thus is not yet considered effective (Asian Development Bank, 2013). In 2016, there is still no register of accredited health staff in Vietnam (WHO, 2016).

Attempts have been made to shift the focus of nursing curricula from a medical focus to one that emphasises nursing theory and nursing science in Vietnam. It is noted that this goal has not been achieved with continued reliance on educators being sourced

\(^1\) Currently, there are four levels of nursing undergraduate education in Vietnam: primary, secondary, collegial and bachelor. The length of the primary program is 1 year, with the entry requirement as the completion of grade 9. Minimum entry requirements to the remaining programs include the completion of secondary school (year 12) and the passing of the National Entry University/College Exam. The length of secondary programs varies from 2 to 2.5 years. The collegial and bachelor programs take 3 and 4 years respectively (WHO, 2013b).
from medicine, other health disciplines and Bachelor of Nursing graduates, who lack clinical experience. There is also no research addressing the effects of recruitment methods on student learning or whether CNEs have sufficient confidence and competence to undertake the clinical teaching role.

To assist with the standardisation of nursing education and practice, a number of international partnerships between Vietnam, America and Australia have been undertaken (Chapman et al., 2013; Crow & Thuc, 2011; Harvey et al., 2013; Hill & Crow, 2013; Jarrett et al., 2010; Lewis et al., 2012). These partnerships have emphasised the building of nurse educator capacity to undertake their pivotal role through the provision of post-baccalaureate programs, postgraduate education, seminars in designing competency-based curricula, workshops in clinical nursing education and scientific conferences (Chapman et al., 2013; Crow & Thuc, 2011; Harvey et al., 2013; Hill & Crow, 2013; Jarrett, Hummel, & Whitney, 2005; Jarrett et al., 2010; Lewis et al., 2012). Under the momentum of the current restructures, it is now necessary to evaluate how these preparation programs have affected nurse educators, especially CNEs’ development of confidence in their role. According to Clifford (1989), the shift in nursing education focus caused significant changes in the role of nurse educators and that preparing nurse educators for these changes is imperative. There is, therefore, a need to examine whether Vietnamese nurse educators, particularly CNEs, feel confident in their role and whether they are adequately prepared for the role and, to a larger extent, for their changing roles in the transforming system, so that they can facilitate future nurses to attain and apply nursing competency standards in practice.
1.3. Research questions

The aims of this study are to explore CNEs’ perceived confidence and the factors that affect the development of CNEs’ confidence in undertaking their role in the Vietnamese setting. The specific research questions are:

   i. What are the models of recruitment of CNEs in Vietnam?
   
   ii. How are CNEs prepared for their role in Vietnam?
   
   iii. What level of perceived confidence do CNEs have in their ability to undertake their teaching role?
   
   iv. Do CNEs develop their perceived confidence over time?
   
   v. Are there differences in perceived levels of confidence in clinical teaching between CNEs recruited from the different models?
   
   vi. Is there a relationship between role preparation, model of recruitment and level of perceived confidence?
   
   vii. What are the facilitators and barriers to clinical teaching skill acquisition?

Because of the lack of a valid and reliable instrument to measure CNEs’ perceived confidence (questions iii to vii), there was a need to develop and validate an instrument as a vehicle to address these questions. Ramsburg and Childress (2012) developed the Nurse Education Skill Acquisition Assessment (NESAA) tool to measure the confidence of nurse educators in the classroom setting. The NESAA instrument was conceptualised based on the Dreyfus Model of Skill Acquisition framework (Ramsburg & Childress, 2012) and the Core Competencies of Nurse Educators with Task Statements of the US National League of Nursing (2005). The NESAA instrument is considered suitable to be adapted for use in the clinical teaching environment. The NESAA was developed with high reliability; however, its validity was not reported. In this study,
rigorous procedures were therefore used to adapt, pilot and validate the instrument in the Vietnamese context.

1.4. Overview of the study

Descriptive survey research has been used to inform the design of this study. Descriptive survey research design allows for descriptions of human behaviours, perceptions, opinions or beliefs about a particular issue that can be summarised and quantified (Lodico, Spaulding, & Voegtle, 2010). This study involved three phases. The instrument for data collection was adapted and piloted in Phase One, followed by the instrument validation process in Phase Two. In Phase Three, the instrument was administered to seek answers to the research questions. In all three phases, cross-sectional surveys were used to collect data.

*Transitions theory* (Meleis, 2010) was used as the conceptual framework underpinning the development of this study. *Transitions theory* emphasises the process of change in humans and societal environments that can shape the consequences of transitions. The conceptualisations of role insufficiency, role supplementation and role mastery in role transition became the lenses through which the research data was collected, analysed and interpreted. Figure 1 below illustrates the dimensions of transitions theory that inform the conceptual orientation of this study.
Figure 1. Relation between role insufficiency, role supplementation and role mastery during role transition.

*Note:* The red arrow indicates role supplementation as a preclusion or solution for role insufficiency. The green arrow indicates role mastery as a desired consequence of role supplementation.

**1.5. The significance of the study**

This study is significant because of its potential contribution to the ongoing process of professionalisation of nursing in Vietnam. The results of this study will provide evidence about the effectiveness of current recruitment and preparation methods for CNEs on the development of their perceived confidence. The evidence will inform administrators in directing resources in the use of effective methods, as well as reducing the use of ineffective methods, to recruit, prepare, support and facilitate CNEs in their role development. Effective preparation programs will contribute to CNEs’ experience of professional development, job satisfaction, commitment and retention in nursing education (Baker, 2010; Gutierrez, Candela, & Carver, 2012; Himmelberg, 2011; McDonald, 2010). Ultimately, effective preparation of CNEs will influence the quality
of clinical nursing education and the sustainability of changes beyond the current reform within nursing in Vietnam.

The World Health Organization has identified an important knowledge gap that needs to become part of the research agenda in the transformation and expansion of health education, that is, “Do health faculty development programmes increase confidence in teaching?” (World Health Organisation, 2013, p. 52). This knowledge gap is not confined to Vietnam but exists in many countries (World Health Organisation, 2013), potentially hindering the education and training in relation to the quality, quantity and relevance of health workforces for diverse and changing healthcare needs. Resolutions to this gap in the Vietnamese nursing context will also allow application in nursing education in other countries, as well as in other health-related disciplines.

1.6. Glossary of terms

1.6.1. Clinical nurse educators

A number of terms such as ‘clinical supervisor’ and ‘clinical facilitator’ have been used in the literature to refer to the role of the educator in clinical health education. Other terms used are ‘preceptor’, ‘mentor’, ‘clinical instructor’, ‘clinical teacher’, ‘facilitator’ and ‘lecturer practitioner’. According to Health Workforce Australia (2010), ‘clinical educator’ is recommended for use as it reflects an emphasis on the educational aspect of the role in clinical education. In this thesis the term ‘clinical nurse educator (CNE)’ is used to refer to personnel who take on the educational role in all models of clinical nursing education. The term ‘CNE’ when referring to the Vietnamese setting is not necessarily indicative of the educator’s nursing background.
1.6.2. Evaluation/assessment, evaluator/assessor, evaluate/assess

According to the *Cambridge Online Dictionary* (2016), both ‘evaluate’ and ‘assess’ are defined as “to judge or decide the amount, value, quality, or importance of something”. In this thesis these terms are used interchangeably.

1.6.3. Registered nurse

According to WHO (2016), currently there is no documentation of registered health staff in Vietnam. Therefore, when referring to the Vietnamese context, the term ‘registered nurse’ is avoided.

1.6.4. Friendship Bridge Nurses Group

The FBNG was founded in 1991 by American nurses with the mission to develop and improve the quality of nursing care and nursing education in Vietnam. This organisation is a network of American volunteer nurses and nurse educators working on collaborative projects with nurse administrators and leaders in Vietnam (FBNG, 2016).

1.7. Structure of the thesis

This thesis incorporates six chapters. In Chapter One, the background to the study and the research questions have been presented. The literature relevant to the topic is examined and reviewed in Chapter Two. In Chapter Three, the research design, methods and conceptual framework underpinning the conduct of this study are described. The processes and results of the development, piloting and validation of the CNESAA instrument are reported in Chapter Four. In Chapter Five, the results of the administration of the validated CNESAA instrument to answer the research questions are presented. Discussion of the study findings, conclusions, limitations and recommendations is given in Chapter Six of this thesis.
1.8. Conclusion

This chapter has presented the background to the study that includes the Vietnamese context. An explanation of terms has been provided. The aim and research questions have also been presented. A brief outline of the thesis structure has been given to guide readers. In the next chapter, important themes of the reviewed literature in clinical nursing education literature are discussed.
Chapter Two: Literature Review

2.1. Introduction

The progress of the professionalisation of nursing in Vietnam relies on the quality of new graduates who enter the profession from Bachelor of Nursing degrees. Nursing as an applied practice discipline requires learning experiences that are both theoretical and practical. The interdependent roles of academic nurse educator and clinical nurse educator (CNE) are integral to a successful nurse education program.

The role of CNE has not been examined in any depth in Vietnam, nor has the process of transition to the role. There is a paucity of recent literature related to clinical teaching generally, with the vast majority of that literature conducted in the Western context. In Chapter One, the background to this study has been presented to identify the purpose of the study, research aims and significance. In this chapter, a critical review of the available literature further positions the study and provides a context to the research questions.

An extensive search of the relevant databases (Cumulative Index to Nursing and Allied Health Literature [CINAHL], ProQuest, Medline and Educational Resources Information Center [ERIC]) was conducted within the time frame from 2000 to 2016. Keywords used were transition* (OR transfer OR transform OR move OR change), nursing (OR nurse), teach* (OR educator OR academic*). A footnote chasing approach was further applied to search for relevant articles. Two dominant themes in the literature were identified: (1) aspects around the role of the CNE; and (2) transitions of registered nurses into nursing education.
2.2. Aspects around the role of the CNE

2.2.1. The role of the CNE

The role of the CNE in facilitating student learning in undergraduate nursing programs is complex and involves the development of students’ knowledge, clinical skills and professional behaviours. The CNE is also engaged in providing constructive feedback, assessment of student performance and management of the learning environment (Barrett, 2007; Cave, 2005). The CNE may also help students to develop a nursing identity, familiarise them with the healthcare agency and assist them to socialise to the clinical environment (Brown, Stevens, & Kermode, 2012; Croxon & Maginnis, 2009; Dahlke, Baumbusch, Affleck, & Kwon, 2012; Hou, Zhu, & Zheng, 2011). While the role of the CNE is complex, facets of the CNE role have been identified in a range of literature reviews and studies that have investigated the perspectives of CNEs, nurse managers, nurse clinicians, students and others relevant participants. Although the quality of these studies varies in relation to sample size, research scope, design and rigour, there is agreement that the key responsibilities of the CNE include: (1) education of students in the clinical environment; (2) evaluation of students’ clinical performance; and (3) liaison between learners, and hospital and academic staff.

2.2.1.1. Educator

A focus on education or the teaching and learning process in practice is central to the CNE role and involves a variety of activities. Empirical evidence suggests that the CNE facilitates student learning by supporting students to develop knowledge and psychomotor skills, integrate theory into practice and provide care for patients (Carnwell, Baker, Bellis, & Murray, 2007; Chow & Suen, 2001; McSharry et al., 2010; Saarikoski, Warne, Kaila, & Leino-Kilpi, 2009). The CNE directly supervises and
monitors student performance and thus has a role in maintaining patient safety during the practicum (Croxon & Maginnis, 2009; Luhanga et al., 2010). Tanner (2010) further emphasises the use of appropriate teaching strategies to turn clinical placements into a “gold mine” for student development of deep learning, critical thinking, affective skills and professional values in a healthcare team. Forbes (2010, 2011) conducted a phenomenographic study of 20 Australian CNEs to investigate their experiences of nursing and clinical teaching, finding that CNEs who conceived of nursing as the completion of tasks were likely to teach students using task-focused approaches. Clinical nurse educators who considered nursing to be providing care and collaborating with healthcare team members to achieve patients’ outcomes were likely to use patient-centred approaches to clinical teaching (Forbes, 2010, 2011). It appears from this research that it is important to explore CNEs’ conceptions about nursing as part of a comprehensive preparation program for the role and thus ensure they are equipped to facilitate student learning.

A comprehensive patient-centred approach to clinical teaching is challenging in the fast-paced clinical environment. The CNE plays an integral role in planning, identifying and selecting appropriate practicum experiences to facilitate student learning and provide a well-grounded learning experience. According to Stokes and Kost (2012), practicum experiences include all clinical activities in which students participate. These clinical activities are pivotal to the application of nursing knowledge, development of practical skills and socialisation into the nursing profession. In order to select practicum experiences that are relevant to students’ learning level, CNEs need to be knowledgeable about the nursing curriculum, its clinical components, students’ background and learning styles, and the clinical environment (Stokes & Kost, 2012).
Maintaining a conducive clinical learning environment is an important aspect of the CNE role. Flott and Linden (2016), in their concept analysis of relevant literature from 1995 to 2004, identify four key components of the clinical learning environment: physical space; interaction and psychosocial factors; organisational culture; and teaching and learning activities. These four components can directly affect student experience of clinical learning (Flott & Linden, 2016). In order to positively influence these four components, it is suggested that CNEs are aware of resources and facilities in the clinical setting, that they establish effective working relationships with healthcare staff, obtain information about organisational culture and policies, and use multiple teaching strategies to assist student learning (Flott & Linden, 2016; Stokes & Kost, 2012). These authors additionally emphasise that the increase in patient acuity, the advancement of medical technology, staffing levels and the existence of different healthcare professionals with differing levels of training can affect students’ learning outcomes (Stokes & Kost, 2012). It is clear that these dynamics contribute to the unpredictability of the clinical learning environment and thus it is vital that CNEs understand their influence in order to effectively assist student learning (Smedley et al., 2010) and alleviate student anxiety (Stokes & Kost, 2012). From the points of view of CNEs, students and patients, maintaining a conducive learning setting and a safe environment for patients requires CNEs to take on the role of advocate for both patients and students (Brown, Herd, Humphries, & Paton, 2005; Paton, 2007), and effectively balance students’ learning needs and patient safety (Manninen et al., 2015).

An important aspect of creating a positive clinical learning environment is assisting students to establish a professional identity through the demonstration of appropriate nursing values and beliefs (Brown et al., 2012). Professional socialisation to
nursing is defined as a process of internalising the values and norms of significance to
nursing and acquiring the knowledge, skills and behaviours required for the role of a
nurse (de Swardt, van Rensburg, & Oosthuizen, 2014; Dinmohammadi, Peyrovi, &
Mehrdad, 2013; Price, 2009). Professional socialisation is thus a learning, interactive,
developmental and adaptive process (Dinmohammadi et al., 2013). The outcomes of this
process can be both negative and positive, expected and unintended (Dinmohammadi et
al., 2013). The optimal outcomes incorporate the attainment and maintenance of a
professional identity, job satisfaction, retention in the profession and competence in
providing holistic patient care (Chitty & Black, 2011; Mooney, 2007; Shinyashiki,
Mendes, Trevizan, & Day, 2006). By contrast, the possible negative consequences of
inadequate professional socialisation process include: stress, reality shock, low
motivation, decreased productivity, lack of sensitivity to patient needs and attrition from
the profession (Chitty & Black, 2011; Mooney, 2007; Shinyashiki et al., 2006). As
professional socialisation is developed during formal education, practical experience and
transition into the profession, the outcomes of this process also reflect the quality of
teaching and learning in nursing (de Swardt et al., 2014).

It has been found that CNEs can shape students’ experience of professional
socialisation in many ways (de Swardt et al., 2014; Dinmohammadi et al., 2013).
Dinmohammadi et al. (2013) analysed 47 articles and four books to clarify the concept
of professional socialisation in nursing. The authors concluded that creating a supportive
network for students during clinical placements is an important first step in the process.
As students learn the basic values of the nursing profession during their theoretical
preparation, they have the opportunity to apply these values once they commence
clinical placements (Dinmohammadi et al., 2013). During clinical placements, stress and
unexpected experiences in clinical environment are inevitable and commonly reported by students (Burnard et al., 2008; Goff, 2011; Melincavage, 2011; Moscaritolo, 2009; Nelwati, McKenna, & Plummer, 2013; Vallant & Neville, 2006). The role of the CNE is therefore of utmost importance to supporting student learning and the internalisation of the values of the profession (Dinmohammadi et al., 2013). In an Australian mixed-methods study, Brown et al. (2012) found that CNEs also have an important role in facilitating students to develop a nursing identity by helping them to familiarise themselves and assimilate to the organisation of the clinical environment and to develop skills in cognitive, psychomotor and affective domains. Affective skills are particularly emphasised in this process, as they are intrinsic to holistic care (Brown et al., 2012).

Effective interpersonal skills, creative clinical teaching strategies and the demonstration of role modelling behaviours are all vital tools that CNEs use to assist student learning in all domains of practice. According to Dinmohammadi et al. (2013), interpersonal relationships are central to professional socialisation. The role of CNEs in establishing positive interpersonal relationships between CNEs, students and staff nurses is important to a conducive learning environment for students (Dinmohammadi et al., 2013). Through interactions and communication, information is exchanged, professional values of nursing become explicit, cultural norms are exposed (Dinmohammadi et al., 2013), expectations are clarified and a sense of belonging to the nursing profession evolves (Goodare, 2015).

Other teaching strategies found beneficial in professional socialisation, from the perspectives of South African CNEs in a mixed-methods study by de Swardt et al. (2014), include reflective activities, problem-based teaching, peer-group learning and role modelling. According to de Swardt et al. (2014), reflective teaching approaches help
students explore, reflect on and articulate their thinking, knowledge and emotions about various facets of clinical experience. Storytelling, journal writing and concept mapping are a few of the reflective activities that CNEs can use in clinical settings (de Swardt et al., 2014). A problem-based teaching approach can also be beneficial in catalysing students’ critical thinking abilities, while peer-group learning helps the development of group support for students (de Swardt et al., 2014). In addition, CNEs acting as role models for students and selecting competent nurses to participate in teaching and learning activities for students reinforce the formation of students’ perceptions of norms and beliefs about nursing (de Swardt et al., 2014).

2.2.1.2. Evaluator/assessor

The development of effective teaching and learning strategies to assist student learning is integral to the role of a CNE. Similarly, the role of evaluator or assessor is vital in order to ensure students can demonstrate that learning outcomes have been achieved. Evaluation is an aspect of the CNE role as a regulator of nursing standards and gatekeeper to entry into nursing practice (Amicucci, 2012; Dahlke et al., 2012). Clinical evaluation or clinical assessment is necessary to student development of clinical confidence and clinical skills, and ultimately to the safety of patients (Bonnell, 2012). Evaluation can be both formative and summative (Amicucci, 2012; Bonnell, 2012). Formative evaluation is defined as an educative and diagnostic judgment of student learning, and is reflected through an instructional process (Oermann & Gaberson, 2014). Formative evaluation occurs during the placement through the provision of feedback to students identifying their strengths and weaknesses in order to help them develop, improve and enhance their clinical skills (Oermann, Yarbrough, Saewert, Ard, & Charasika, 2009). Summative evaluation is defined as an end-of-instruction assessment
of student learning outcomes (Oermann & Gaberson, 2014) and culminates with clinical grading activities at the end of the placement (Oermann et al., 2009). In the evaluator role, CNEs are responsible for evaluating student clinical performance to ensure they are achieving designated learning outcomes and becoming safe practitioners. Clinical nurse educators are also responsible for recognising substandard practice and applying clinical grading consistently (Amicucci, 2012). While all CNEs have responsibility for formative evaluation, the summative evaluation role varies depending on the model of clinical nursing education. For example, clinical grading is required in faculty supervision and preceptorship models, but not included in mentorship models in some settings (Barrett, 2007; Huybrecht et al., 2011).

While considerably important, evaluating students in clinical settings is also identified as the most difficult part of clinical teaching (Amicucci, 2012; Scanlan, 2001). This is firstly because of the complex nature of student practice, which incorporates multiple dimensions: affective, cognitive and psychomotor (Baillie, 2014; Bonnell, 2012). Effective evaluation thus needs to be well planned to assess students’ knowledge, behaviours and attitudes commensurate with their level of learning (Bonnell, 2012). Student competence and sensitivity in cultural and spiritual values of patients who come from different backgrounds are increasingly crucial and may also need to be evaluated (Oermann et al., 2009). This means that the careful combination of multiple evaluation methods is essential and this may incorporate clinical observation, written and/or oral communication, simulated learning and self-evaluation (Bonnell, 2012). In various studies, students have highlighted the importance of a fair evaluation process to assist them to improve their clinical skills (Tang et al., 2005; Viverais-Dresler & Kutschke, 2001). The combination of different evaluation approaches is also indicated as helpful in
assisting CNEs to judge student performance objectively (Bonnell, 2012). Another challenging aspect of clinical evaluation is the involvement of not only CNEs and students, but also patients and possibly hospital staff. Acquiring skills to evaluate clinical situations and protect patient safety while simultaneously respecting students’ integrity and independence and not over-supervising is said to be an important skill for CNEs to develop (Bonnell, 2012).

Due to the important and challenging nature of clinical evaluation, CNEs are likely to experience difficulties in evaluating student performance, progress and achievement of clinical learning outcomes. A number of studies investigating CNEs’ experience of the evaluator role have reported that evaluating student performance in the clinical setting is stressful (Amicucci, 2012; Black, Curzio, & Terry, 2014; DeBrew & Lewallen, 2014; Heaslip & Scammell, 2012; Larocque & Luhanga, 2013; Rafiee, Moattari, Nikbakht, Kojuri, & Mousavinasab, 2014). In a British survey study that comprised 107 students and 102 CNEs, Heaslip and Scammell (2012) found that the feedback given to students did not match the awarded grades. This was attributed to CNEs’ lack of confidence in giving feedback to students who were underperforming (Heaslip & Scammell, 2012).

The challenges associated with feedback and summative clinical assessment have long been acknowledged. Duke (1996) identified that CNEs were disinclined to make decisions about students’ clinical performance due to role conflict, low self-esteem and their inherent caring manner. Similarly, studies involving various surveys and interview techniques have reported CNE unease and stress when faced with giving students a fail grade (DeBrew & Lewallen, 2014; Heaslip & Scammell, 2012; Larocque & Luhanga, 2013). It is further evident from empirical studies with small to medium sample sizes
that this stress emanates from the understanding that giving a student a pass or fail grade can substantially impact their study and future career, as well as the safety of patient care (Amicucci, 2012; Black et al., 2014; Larocque & Luhanga, 2013). However, Heaslip and Scammell (2012) found that by avoiding giving feedback to underperforming students, CNEs were depriving them of opportunities to recognise their strengths and weaknesses and to improve clinical performance. This lack of opportunity to improve performance could lead to unfair assessment (Black et al., 2014). Clinical nurse educators participating in a qualitative study by Black et al. (2014) reported that more effective preparation and administrative support would assist them to overcome stress and uncertainty in grading students’ clinical performance.

The quality of clinical assessment can be affected by a number of factors. These factors include the design of clinical assessment tools, the duality of the educator and assessor role, the dynamic characteristics of clinical settings (Oermann et al., 2009), time constraints, staffing levels (Black et al., 2014), pre-existing CNE–student educational relationships (Donaldson & Gray, 2012), and administrative pressure and support (DeBrew & Lewallen, 2014; Docherty & Dieckman, 2015). Examples of these influences on student clinical assessment can be found in the qualitative studies of Rafiee et al. (2014) and Vaismoradi and Parsa-Yekta (2011), where a total of 46 Iranian students identified that clinical assessment forms were inappropriately designed to evaluate multiple aspects of their clinical practice. In addition, CNEs reported that their presumptions about some particular students may have distorted their objectivity in the assessment process (Rafiee et al., 2014). These subjective aspects of assessment are said to lead students to feel that they have been unfairly assessed and, as a result, they
become dissatisfied and discouraged in their clinical learning (Rafiee et al., 2014; Vaismoradi & Parsa-Yekta, 2011).

Killam and Heerschap (2013) assert that student perception of being subjectively evaluated is indicative of ineffective organisation of clinical placement. For example, Docherty and Dieckman (2015) conducted a cross-sectional survey and found that of the 84 American CNEs, 72.2% \((n = 57)\) gave students “the benefit of the doubt” when grading and 17.7% \((n = 14)\) decided to give a pass grade to underperforming students. These participants attributed such subjective grading to the lack of organisational support and the presence of administrative pressure (Docherty & Dieckman, 2015). While these findings are from a small-scale quantitative survey, Donaldson and Gray (2012) in their systematic review concluded that the inflation of clinical grading also occurred in other contexts such as Australia and Scotland. The implications of inaccurate grading are of concern due to potential impacts on the quality and safety of patient care. It seems clear that preparation, training and support are of paramount importance to enable CNEs to confidently meet their professional responsibilities as assessors of student clinical learning.

2.2.1.3. Liaison

Another potentially stressful aspect of the CNE role is maintaining successful relationships in clinical settings. The CNE is often the bridge between educational and healthcare organisations and can significantly influence the quality of those relationships (Needham et al., 2016). The connections that exist between universities and hospitals, students, nurse managers and RNs are complex, and the skills needed to manage them can sometimes differ (Andrews et al., 2006; Carnwell et al., 2007; Cave, 2005; Duffy & Watson, 2001; Needham et al., 2016; Noonan et al., 2009; Price, Hastie, Duffy, Ness, &
McCallum, 2011). The purpose of liaison is to ensure the university requirements and expectations related to student learning outcomes, student learning levels and clinical assessment requirements are clearly communicated and mutually understood (Andrews et al., 2006; Needham et al., 2016; Price et al., 2011). This liaison role requires CNEs to establish open communication and maintain positive collegial relationships with clinical staff in order to effectively clarify, exchange and update information about aspects related to student clinical placements (Murphy, 2000). Clear and positive communication between CNEs and clinical staff is also believed to be beneficial in assisting related staff to identify relevant learning opportunities for students (Noonan et al., 2009; Stokes & Kost, 2012).

The presence of CNEs in clinical settings can be a resource for hospital staff. All 41 participants including CNEs, nurse managers and students in McSharry et al.’s (2010) phenomenological study shared a common belief that CNEs contributed additional information for clinical staff regarding health policy, practice development and clinical research. The participants also asserted that CNEs were especially advantageous in providing nursing staff with evidence-based knowledge and contemporary practice (McSharry et al., 2010). Their incidental guidance and support to newly qualified nurses in improving clinical confidence and competence in nursing practice have also been acknowledged by nurse clinicians and nurse managers (Noonan et al., 2009; Williamson & Webb, 2001). Moreover, in some contexts, CNEs take part in mentoring and supporting staff nurses to take on the role of CNE in the future (Williamson, 2004). In so doing, CNEs contribute to capacity building for the future support of students in clinical settings.
Nevertheless there are those who believe that the liaison role is enhanced only when CNEs have developed familiarity and experience in clinical practice as clinicians (Kaviani & Stillwell, 2000; Newland & Truglio-Londrigan, 2003; Ramage, 2004; Rattray, 2004; Williamson & Webb, 2001). Expertise in the area of clinical practice is said to enable CNEs to demonstrate practical skills to students and to foster student competence in practice (Meskell, Murphy, & Shaw, 2009; Williamson & Webb, 2001). It is argued that CNEs’ ability to bridge theory and practice for students and to maintain social relationships with staff nurses can be negatively affected when they are allocated to teach in unfamiliar areas where they may lack clinical expertise (Meskell et al., 2009; Williamson & Webb, 2001). It is evident, however, that the allocation of CNEs to specific areas in the clinical setting is sometimes random and may have little relationship to their area of expertise (Meskell et al., 2009; Ramage, 2004). Such inappropriate allocation causes a number of unnecessary challenges for CNEs (Meskell et al., 2009; Ramage, 2004).

These studies have identified an ongoing debate surrounding the relative importance of clinical practice expertise and teaching expertise in developed countries (Meskell et al., 2009; Ramage, 2004). In Vietnam, it is often the case that CNEs do not have a background in nursing at all. In addition, many of those with a nursing background may have no clinical practice experience, having commenced as an educator immediately on graduating from their bachelor degree. The effect of experience and inexperience as a clinician on CNEs’ confidence to undertake their role has not been widely explored and has never been investigated in the Vietnamese setting. Confidence in the role of educator and clinician are both positively associated with competence (Bentley & Pegram, 2003). It is therefore important that this phenomenon is rigorously
investigated in order to shed light on the debate surrounding the importance or otherwise of clinical expertise. This knowledge will help inform the recruitment and preparation practices of CNEs and provide high-quality clinical teaching for students.

The literature around the role of the CNE has been summarised thus far. The agreed-on key aspects of the CNE role are identified as: educator, evaluator and liaison. In order to achieve these key roles of the CNE, certain attributes are required. The following section continue this discussion in exploring both personal and professional attributes that CNEs bring to clinical settings and contribute to effective clinical teaching.

2.2.2. Skills and attributes of an effective CNE

The role of the CNE is likely to be influenced by a number of personal and professional attributes. It is therefore important to identify the attributes of CNEs that contribute to effective clinical learning (Gignac-Caille & Oermann, 2001). Many studies have been conducted in which a number of essential attributes of effective CNEs have been identified. These attributes include teaching ability, professional competence (also referred to as clinical credibility or clinical competence), interpersonal skills and personal traits.

2.2.2.1. Interpersonal skills

Interpersonal skills appear to be the most important attribute of an effective CNE as ranked by nursing students, CNEs and clinical nurses. A number of authors have referred to interpersonal skills as CNEs’ communicative capabilities in establishing and maintaining positive relationships with students and health practitioners in clinical settings (Aston, Mallik, Day, & Fraser, 2000; Elcigil & Sari, 2008; Tang et al., 2005). In a survey by Tang et al. (2005) that comprised 214 Taiwanese students, interpersonal
skills were measured through nine items focusing on the provision of constructive feedback to improve student learning, avoiding dominating attitudes and over-supervision, treating students with consideration and solving problems with students. The findings suggest that the most striking difference between a CNE perceived as effective and one perceived as ineffective was demonstrated by the item “treats students sincerely and objectively” (Tang et al., 2005, p. 190). Elcigil and Sari (2008) conducted a qualitative study using focus group interviews to explore 24 Turkish students’ perspectives and expectations of effective CNEs. These students identified the need for a CNE to be available, understanding, motivating, respectful, empathic, caring, appreciative and attentive in interactions. Similar findings are also reported in other studies reflecting the importance of effective communication in the promotion of a respectful learning environment and the development of healthy interpersonal relationships between students and CNEs (Aston et al., 2000; Klunklin et al., 2011; Lee, Cholowski, & Williams, 2002; Valiee, Moridi, Khaledi, & Garibi, 2016; Viverais-Dresler & Kutschke, 2001).

According to Lee et al. (2002), students at different levels of learning have varying needs for CNEs’ support. Lee et al. (2002) used a 48-item questionnaire to investigate 104 Australian students’ opinions about the attributes of an effective CNE. The findings revealed that interpersonal relationships were ranked higher by younger students (from 18 to 20 years of age) compared to mature-aged students (from 21 to 50 years of age) (Lee et al., 2002). Approximately 90.4% of the younger students did not have any previous experience of clinical placements. According to Lee et al. (2002), the lack of clinical experience may be a possible explanation for students’ high anxiety levels and need for a higher level of moral support. By contrast, students who had some
level of experience of clinical settings expected to receive more guidance to develop practice skills (Lee et al., 2002). These authors did not, however, address whether these discrepancies in the need for support were statistically determined by the singular effect of age and previous experience, or the combination of both.

In as much as interpersonal support from the CNE is essential for students, the ability to establish and maintain effective working relationships with staff nurses is important especially to new CNEs (Heydari et al., 2015; Ramage, 2004). Iranian CNEs in Heydari et al.’s (2015) study reported dissonance in their relationships with hospital staff due to their perceived detachment from clinical practice. This perceived detachment was thought to lead to a loss of support from clinical staff and to create concerns for CNEs about being accepted in their clinical teaching role (Heydari et al., 2015). While these findings were drawn from a small qualitative study, the study data were enriched by in-depth unstructured interviews and the authors’ field notes (Heydari et al., 2015). Similar findings were reported in a longitudinal grounded theory study that observed changes in CNE experiences of clinical teaching over a seven-year period (Ramage, 2004). Being seen as a visitor in the clinical setting was an issue for CNEs, causing them to use conformity as a coping strategy (Ramage, 2004). Conformity was seen as a desire to gain acceptance and support from staff nurses by suppressing their identity as an educator and adopting “fitting-in” strategies (Ramage, 2004). The adoption of these strategies was considered to have the side effect of impeding the availability and effectiveness of CNEs to supervise students (Ramage, 2004) and delaying CNEs’ ability to build confidence in the educator role.
2.2.2.2. Professional competence

Feeling like a visitor in the clinical setting may also affect how CNEs’ competence is assessed by ward staff. Competence is seen as an important attribute of an effective CNE. The competence of CNEs is referred to in various ways, including nursing competence (Beitz & Wieland, 2005; Elcigil & Sari, 2008; Lee et al., 2002), clinical competence (Aston et al. 2000) and professional competence (Hou et al., 2011; Tang et al., 2005; Viverais-Dresler & Kutschke, 2001). Despite the differences in terminology used in various studies, the research method and the survey instrument, there is a high degree of agreement that the competence of CNEs is demonstrated through their knowledge, role-modelling behaviours, experience and skilfulness in clinical nursing techniques.

Being knowledgeable is integral to CNEs’ competence (Hou et al. 2011; Tang et al. 2005; and Lee et al. 2005). While Hou et al. (2011), Tang et al. (2005) and Lee et al. (2005) only briefly describe the importance of CNEs being knowledgeable, Heffernan, Heffernan, Brosnan and Brown (2009) emphasise CNEs’ understanding of their teaching role and of the student role, and information about the orientation for students prior to clinical placements. These results reflect the perspectives of 208 students and 191 CNEs via interviews and questionnaires (Heffernan et al., 2009). Knowledge about the curriculum is further identified as essential for CNEs in effectively assisting student learning (Heffernan et al., 2009; Viverais-Dresler & Kutschke, 2001). According to a small group of nursing graduates \( n = 6 \) in a grounded theory study by Hanson and Stenvig (2008), having theoretical knowledge of contemporary nursing and understanding of clinical settings are important aspects of CNEs’ knowledge.
Role modelling of the skills and behaviours of the profession is considered vital for CNEs to facilitate student learning (Lee et al., 2002). According to Klunklin et al. (2011), role modelling is very important to help students understand and reflect the expected skills, knowledge, behaviour and attitudes required of RNs. In a study of 320 Thai CNEs, Klunklin et al. (2011) used an existing instrument for CNEs to self-evaluate their role-modelling behaviours. Highly rated behaviours included: social appropriateness; respect for students; demonstrating the values of the nursing profession and nursing practice; enthusiasm and high-quality teaching activities; and engagement in ongoing professional development. The authors reported that showing respect for students was rated highest among these five sub-categories (Klunklin et al., 2011).

Further perspectives on role modelling are offered by Heshmati-Nabavi and Vanaki (2010) and Gray and Smith (2000). According to Heshmati-Nabavi and Vanaki (2010), demonstrating role modelling in an Iranian context means exhibiting actions and behaviours that manifest commitment to the nursing profession. In Scotland, role modelling was perceived as being professional, well-organised, self-confident and caring (Gray & Smith, 2000). Although these results are informative, both studies (Gray & Smith, 2000; Heshmati-Nabavi & Vanaki, 2010) were conducted with a small sample size, which limits the generalisation of results.

Studies conducted with student participants have similarly identified clinical skills as an important capability of the CNE. Students in Heshmati-Nabavi and Vanaki’s (2010) study expected the CNE to demonstrate skills in clinical practice, enjoyment of teaching and effective communication skills, and to have the ability to integrate theory and practice. They also expressed preference to work with CNEs who could demonstrate clinical techniques proficiently (Heshmati-Nabavi & Vanaki, 2010). Substantial clinical
teaching experience and being up-to-date with current literature are additional qualities identified in Elcigil and Sari’s study (2008). While CNEs’ demonstration of skills in clinical judgment was highly rated (Lee et al., 2002), students regarded knowledge of nursing and the ability to integrate theory and practice as being more important than having hands-on ability (Tang et al., 2005). These findings appear to reflect a conception of clinical competence that is broader than the teaching of basic hands-on skills and, rather, encompasses the whole range of clinical teaching skills. Evidence related to competence is substantially dated and changes to clinical supervision models have taken place in the intervening years, suggesting that new investigations in this area are required.

2.2.2.3. Teaching ability

Quantitative and qualitative research focusing on teaching has provided a multifaceted explanation of important CNE teaching skills. Teaching ability, while considered important, was rated lower than interpersonal skills and clinical competence in studies involving both CNEs and students (Lee et al., 2002; Tang et al., 2005). Results of Lee et al.’s survey (2002) showed that the selection of clinical learning opportunities and demonstration of enjoyment in teaching were considered to be important aspects of teaching. Hou et al. (2011) emphasised the use of multiple teaching approaches in clinical settings. Tang et al. (2005) identified a more comprehensive description of the clinical teaching skillset needed for effective clinical teaching. These skills include: promotion of a constructive learning environment; encouragement of independent learning and thinking; use of appropriate teaching strategies; relevant knowledge as well as expectations for students; objective evaluation; and effective management of time and resources for clinical practice (Tang et al., 2005). Concurring with these results, Gray
and Smith (2000) further reflected effective clinical teaching skills through the emphasis on CNE knowledge of nursing programs and the provision of feedback to improve student clinical performance. These findings were drawn from the analysis of multiple interviews repeated five times with the same ten students and diaries collected from another seven students over three years (Gray & Smith, 2000). Elcigil et al. (2010) conducted focus group interviews with 24 students, finding that they considered CNEs’ effective teaching skills as the ability to demonstrate clinical skills and to act as an adviser for students in clinical settings.

While most studies exploring CNEs’ teaching ability are quite dated, there has been an attempt to contribute more recent evidence about clinical teaching skills and behaviours in Nigeria. Okoronkwo, Onyia-pat, Agbo, Okpala and Ndu (2013) conducted a survey study to explore Nigerian students’ perception of “effective clinical teaching” skills. The authors defined “effective clinical teaching” as CNE ability to apply general, nursing, pedagogical and political knowledge in order to foster student learning. The survey instrument was developed to explore the use of these types of knowledge. While the authors claimed that the reliability and content validity of the tool have been established, the lack of rigour in the item development and lack of a step to examine the constructs of the survey may have affected the instrument’s validity. The findings from this study thus should be viewed with caution.

2.2.2.4. Personal traits

Apart from teaching skills, CNEs also bring to clinical environments their personal traits, which can influence the effectiveness of their teaching. From student perspectives, it is important that CNEs are approachable to enable comfortable communication to assist their clinical learning (Gray & Smith, 2000; Heffernan et al., 2009; Kube, 2010).
Furthermore, CNEs believe that patience, attentive listening and being well-organised are additional traits that help them to be more prepared for clinical teaching (Miller, 2013). Students also expect sincerity and encouragement from their CNEs (Beitz & Wiedland, 2005; Lee et al., 2002; Tang et al., 2005), especially encouragement of independent learning and critical thinking (Brewer & Dattilo, 2002). The demonstration of passion for nursing, enthusiasm and confidence in clinical teaching has also been found to be meaningful for students (Heshmati-Nabavi & Vanaki, 2010; Okoronkwo et al., 2013; Tang et al., 2005). These expectations emphasise the important role of CNEs in reshaping student experiences during the formation of professional values and nursing identity. Confidence in the clinical teaching role appears to be a particularly important attribute. Confidence has been positively linked to competence (Bentley & Pegram, 2003). This aspect of clinical teaching behaviour has not, however, been explored in depth in any of the studies reviewed.

Just as the most important professional attributes and personal traits of an effective CNE have been identified, gaps in this area are also evident. Notably, none of the reviewed studies have investigated how CNEs can obtain, develop and sustain effective interpersonal skills, professional competence, clinical teaching ability and certain personal traits. Similarly, the available literature has not explored how best to support CNEs in meeting the expectations of the role. In addition, although most of the instruments used in this area are claimed to be reliable and valid, the instrument validation processes were either limited, incomplete or inadequate in most reviewed studies.

For example, Tang et al. (2005) conducted a study in Taiwan aiming at developing a rigorous instrument to evaluate effective and ineffective behaviours of
CNEs. However, the authors only reported on the reliability of the instrument, with no explanation of its construct validity (Tang et al., 2005). Okoronkwo et al. (2013) acknowledged the flaws in the instrument they developed by identifying that subjectivity limits the generalisability of their findings. The “Clinical Nursing Faculty Competence Inventory” developed by Hou et al. (2011) was reported to be reliable; however, two of its subscales’ Cronbach alpha values were well below acceptable thresholds. Moreover, the use of exploratory factor analysis, while extensively used in nursing and in Hou et al.’s (2011) study, is itself insufficient to confirm the construct validity of an inventory. Given these methodological flaws in many of the tools used to explore or describe CNE behaviours, it is important that rigorous procedures and methods are applied in future instrument development research.

2.2.3. Challenges to the role of the CNE

While certain attributes of CNEs can contribute to effective clinical teaching, the delivery of this multi-dimensional role can be hindered by a number of factors. Research findings have shown two common factors contributing to difficult and challenging experiences for CNEs. These factors are competing demands and lack of preparation and support (Anibas et al., 2009; Jenkins-Cameron, 2014; Kaviani & Stillwell, 2000; Mann, 2013; Meskell et al., 2009; Williams & Taylor, 2008).

2.2.3.1. Competing demands

A number of studies have identified that CNEs often feel conflicted balancing university requirements with hospital, patient and student needs (Carnwell et al., 2007; Humphreys et al., 2000; McSharry et al., 2010; Meskell et al., 2009; Williams & Irvine, 2009; Williamson, 2004). Different models of clinical supervision place different demands on CNEs. Luhanga et al. (2010) reviewed 17 theoretical discussion papers and 40 empirical
articles to explore CNEs’ experiences in preceptorship models. The authors conclude that the nature of the one-on-one relationship between a CNE and a student is stressful and demanding for CNEs (Luhanga et al., 2010). In addition to the review on preceptorship models, Omansky’s (2012) integrative review, which includes 20 empirical studies and 10 non-empirical articles published between 1981 and 2009, further investigated CNEs’ experiences in mentorship models. The author found that the stress of juggling conflicting demands between teaching and patient care was prevalent among CNEs in all reviewed studies where mentorship and preceptorship models were applied (Omansky, 2010).

These findings are echoed in more recent studies. For example, Huybrecht, Loeckx, Quaeyhaegens, De Tobel and Mistiaen (2011) conducted a mixed-methods study comprising 112 Belgian CNEs in mentorship models to investigate their perspectives and experiences of clinical teaching; these CNEs, who simultaneously practised as RNs, identified that time constraints, student expectations and conflicts between educational providers and the hospital adversely affected the quality of teamwork among hospital staff. Huybrecht et al. (2011) further reported that intensive workloads substantially hindered CNEs from providing essential feedback to students at least once a week (20%, n = 20), indicating that potential opportunities to improve students’ clinical skills may have been missed. Moreover, preceptors in a quantitative study by Kalischuk et al. (2012) reported a lack of time to teach students (37.4%, n = 43) while carrying out their role in providing patient care (73%, n = 241). These preceptors also indicated that they did not receive sufficient on-site assistance from university-based CNEs and hospital managers to develop their clinical teaching role (Kalischuk et al., 2013). A further common finding reported by preceptors is the need for a reduced
patient care workload to allow them to excel in their teaching responsibilities and to attend educational workshops to facilitate their role development (Kalischuk et al., 2013). Similar findings are also found in the study of McCarthy and Murphy (2010) about CNEs in the lecturer practitioner model.

While hospital-based CNEs often face a divide between their roles as an educator and a clinician (Kalischuk, Vandenber, & Awosoga, 2013; McSharry et al., 2010; Williamson et al., 2004), university-employed CNEs, on the other hand, are challenged by the requirements of academia and the nature of teaching a group of students in clinical settings. It has been reported that CNEs who were employed by a nursing school were required to engage in research activities and theoretical teaching in classroom settings (Cooley, 2013; Gazza, 2009; McSharry et al., 2010; Meskell et al., 2009; Ramage, 2004). These demands can compete with the amount of time available for CNEs to visit clinical settings and therefore limit their availability to students (Meskell et al., 2009). The ratio of CNE to students in a faculty-supervised model or an accompanied model is 1:8 in a number of countries (Gaberson & Oermann, 2010). Managing a group of eight students who are spread across different patient rooms in the clinical setting (Anibas et al., 2009) and providing individualised feedback to these students regarding their clinical learning (Hickey, 2010) can be challenging for CNEs in this model.

The faculty-supervised model is the most common model of clinical nursing education in Vietnam, although CNE–student ratios can be much higher than in the Western world. The ratio in Vietnam is said to average 1:15 and can fluctuate from 1:10 to 1:25 in a number of institutes. These high ratios suggest that the difficulty experienced by CNEs with smaller student ratios may be magnified for Vietnamese
CNEs, and so may also affect their confidence in the CNE role and their ability to successfully facilitate student learning. It is necessary to note that nurse educators in Vietnam are employed for both academic and clinical teaching duties at the same time (Lewis et al., 2012). The typical working day of a Vietnamese nurse educator consists of clinically supervising students in the morning and classroom teaching in the afternoon. These various responsibilities mean that CNEs have an intensive workload that may affect their experience and confidence in their clinical teaching role.

These issues are not confined to Vietnam. In many developed countries, the dilemma of substantial workloads has been found to constrain the quality of interpersonal relationships between CNEs and hospital staff (Huybrecht et al., 2011) and CNEs’ ability to fulfil the expectations and responsibilities of the clinical teaching role (Aston et al., 2000; Heydari et al., 2015; Kaviani & Stillwell, 2000; Mann, 2013; Murphy, 2000; Ramage, 2004; Williams & Irvine, 2009). What effect higher CNE–students ratios have on the experience and confidence of the CNE to effectively undertake their clinical teaching role remains largely unexplored. Well-designed studies to investigate these factors in Vietnam would add to the body of knowledge enhancing the effectiveness of clinical teaching for the future.

2.2.3.2. Lack of preparation and support for the role

A plethora of research has been conducted identifying the importance of well-planned preparation programs to assist CNEs to be effective in their role. According to Luhanga et al. (2010), role preparation is the key to the success of clinical nursing education. It has also been suggested that sufficient preparation and support can be beneficial in reducing stress, uncertainty and anxiety among CNEs in clinical settings (Baker, 2010; Cangelosi et al., 2009; Hewitt & Lewallen, 2010). Preparation and support can be formal
and informal, institutional and individually personalised, and may include orientation programs, mentoring, guidelines, educational courses, conferences, seminars and peer support. Research in this area has been conducted over a number of years (from 2000 to 2014) in a variety of settings (the UK, Ireland, the USA, Australia, New Zealand, Hong Kong, Korea and Cameroon) using a range of research methodologies (qualitative, quantitative and mixed-methods) (Altmann, 2006; Aston et al., 2000; Chow & Suen, 2001; Eta et al., 2011; Higgs & McAllister, 2007; Jenkins-Cameron, 2014; Kaviani & Stillwell, 2000; Lee et al., 2007; McCarthy & Murphy, 2010; Needham et al., 2016; Nelson & McSherry, 2002; Suplee et al., 2014; Williams & Irvine, 2009; Williamson, 2004). Despite differences among these studies, the need for preparation programs for CNEs and the insufficiency of the current preparation programs have been reported numerous times.

Understanding the quality or otherwise of current preparation programs for CNEs and how these programs affect CNEs’ development in their role is necessary in order to design effective strategies to prepare CNEs in the future. In many contexts, role preparation programs were perceived to be substantially absent (Anderson, 2009; Aston et al., 2000; Cangelosi et al., 2009; Schoening, 2013) or insufficient to CNEs (Smedley et al., 2010; Zungolo, 2004). When formal preparation was in place, it was perceived as not effective (Siler & Kleiner, 2001), unhelpful (Williamson et al., 2004), irrelevant (Manning & Neville, 2009), inadequate (McCarty & Higgins, 2003), too short and unrealistic (Williams & Irvine, 2009) or not meeting the demands of the CNEs (Altmann, 2006). The preparation and training for the process of assessing student clinical learning is also said to be insufficient (Anibas et al., 2009). In a number of studies, a deficit in role preparation was found to result in a sense of unpreparedness
(Mann, 2013) and not being ready for the role (Heydari et al., 2015; Paton, 2007). The lack of preparation further led to CNEs’ concerns about efficiency in their role (Heydari et al., 2015; Meskell et al., 2009; Siler & Kleiner, 2001) and low confidence in undertaking clinical teaching (McSharry et al., 2010). According to Happell (2009), the feeling of being ill equipped can affect CNEs’ ability to become role models for students in clinical settings.

The need for comprehensive preparation for CNEs before undertaking the clinical teaching role has been emphasised in a number of studies (Andrews & Ford, 2013; Cangelosi et al., 2009; Eta et al., 2011; Gardner, 2014; Jetha, Boschma, & Clauson, 2016). In particular, activities such as formal preparation and structured mentorship have been suggested (Andrews & Ford, 2013; Cangelosi, 2014; Jetha et al., 2016; Kaviani & Stillwell, 2000). Anibas et al. (2009) further indicate that CNEs need to be equipped with skills to teach and evaluate students in clinical settings. Myrick and Yonge (2002) point to CNEs’ wish to be prepared for effective teaching behaviours such as role-modelling, facilitating and prioritising student learning. Clinical nurse educators also express their desire for feedback from nursing institutions in relation to their clinical teaching performance; this feedback is believed to be instrumental for their ongoing professional development (Andrews & Ford, 2013). Ongoing support from colleagues and hospital staff is additionally considered of paramount importance for CNEs (Kaviani & Stillwell, 2000; McCarty & Higgins, 2003).

There is, however, little research that identifies which of the many preparation activities actually contributes to enhanced confidence and competence in the role of the CNE. Given that investment in preparation and support programs for CNEs can be resource intensive, research to identify what constitutes effective preparation would be
beneficial. In addition, it is important to understand the effect of sound preparation for the role on the confidence and competence of CNEs to undertake their role.

2.3. Transition from the role of clinician to becoming a CNE

The role of CNE clearly involves competing demands. These challenges can be compounded by insufficient preparation and support, and can occur at all stages of CNEs’ careers. Nevertheless, these experiences can be particularly difficult for new CNEs due to unfamiliarity with their new role. In the past several decades, the recruitment of experienced nurses to teaching of nursing students in educational programs has been considered a norm in many countries (Anderson, 2009). A transition in role identity is a necessary outcome of moving from one primary role to another (Anderson, 2009). Registered nurses are said to experience role transition in each of the following three situations: (1) transition to academic nurse educator (Anderson, 2009; Boyd, 2010; Logan, Gallimore, & Jordan, 2015; Schoening, 2009, 2013; Siler & Kleiner, 2001; Weidman, 2013); (2) transition to CNE (Cangelosi et al., 2009; Chapman, 2013; Clark, 2013; Griend, 2011; Janzen, 2010; Manning & Neville, 2009; Ramage, 2004); and (3) transition to nurse educator who delivers teaching in both classroom and clinical settings (Cantwell, 2014; Dempsey, 2007; Heydari et al., 2015; Schriner, 2007).

The discussion below focuses on the two latter areas.

Mann (2013) reports that the experiences of RNs during the transition phase are not linear but, rather, multi-dimensional and transformative. Metaphors such as “steering through uncertain water” (Griend, 2011, p. 35) and “Alice stepping through the looking glass” (Janzen, 2010, p. 517) are often used to describe these transitional experiences. Meleis (2010) describes multiple stages in the process of transition including: (1) entering the new environment; (2) confronting realities; (3) learning to socialise and
adapt to the new role; and (4) developing a new professional identity. These stages also denote five characteristics of transitions (a process, experience of disconnectedness, perception, awareness and response pattern) (Meleis, 2010).

2.3.1. Enteriing the new environment and confronting realities

The transition of experienced nurses to new positions in nursing education is considered the transition from being an expert to again becoming a novice (Cangelosi et al., 2009), as clinical expertise is not always translated into teaching ability (Mann, 2013). The change in role is said to lead to a change in long-held values and identity, and these new ways of thinking need to be assimilated into the new role (Anderson, 2009). In the new work-role, organisational structure, hierarchy and award mechanisms are often quite different (Anibas et al., 2009; Dempsey, 2007; Schriner, 2007). Clinical nurse educators thus may find that their preconceptions of what the role might entail prior to the transition are contradicted by the reality of the clinical teaching environment (Manning & Neville, 2009). Some of the unexpected realities confronted by CNEs in the new role include their disconnectedness from their previous role as expert clinician and the realisation that they are underprepared for the role and lack appropriate preparation, orientation and support.

According to Meleis (2010), disconnectedness is the most pervasive characteristic in the process of this transition. Feelings related to disconnectedness include a loss of familiarity, incongruity between past and present expectations, and disparity between personal needs and access to satisfaction (Meleis, 2010). Dempsey (2007) asserts that a decrease in contact with patients and lack of involvement in the provision of direct patient care lead to a sense of deskillling for some CNEs, particularly in the initial stage of transition. The experience of gradually losing clinical expertise
challenges CNEs, particularly in their relationships with senior students who are preparing for graduation and registration (Ramage, 2004). Lack of understanding about the academic workplace, the clinical teaching role (Cangelosi et al., 2009; Dempsey, 2010; McArthur-Rouse, 2008) and the expectation of students (Clark, 2013; Schriner, 2007) were commonly reported to cause fear, stress and anxiety for novice CNEs. These CNEs were also confronted with unexpected responsibilities, heavy workloads, and time constraints that were believed to impede their effectiveness in the role and cause them to feel overwhelmed (Dempsey, 2007; Manning & Neville, 2009; Schriner, 2007) and bewildered (Heydari et al., 2015).

In addition to unexpected experiences in the early stage of the role transition, CNEs also realise that they are underprepared for the new role. Newly transitioning CNEs have reported that institutional preparation and orientation were deficient (Cantwell, 2014; Dempsey, 2007; Griend, 2011; Heydari et al., 2015; Schriner, 2007), ineffective (Manning & Neville, 2009), limited (Cangelosi et al., 2009) or not available for teaching in clinical settings (Dempsey, 2010; Jackson, 2015). For example, Cantwell (2014) used an existing validated instrument, the “Role Strain Scale”, to survey 354 American CNEs. The survey results revealed that 58% \((n = 205)\) of the participants were not mentored for the role and 15% \((n = 54)\) were not offered programs to develop teaching skills. Cantwell (2014) also highlighted a statistically positive association between experience in the role and high levels of role strain in an institution where preparation and support were deficient. In a smaller survey study using a convenience sample, Suplee et al. (2014) indicated that one-third of the 74 CNEs were not equipped with clinical teaching skills and 26% were not prepared with skills to effectively provide feedback to students in clinical settings. A small qualitative study by Heydari et al.
(2015) \((n = 9)\) concluded that inadequate pedagogical courses and peer support, as well as preparation programs that were too theoretical, meant CNEs were unable to develop problem-solving skills for real-life clinical teaching situations. Meanwhile, Manning and Neville (2009), in a qualitative study comprising one-on-one semi-structured interviews with eight CNEs in New Zealand, found that short and informal preceptorship arrangements between a new CNE and a senior colleague was considered unhelpful for role development.

Most of the research in this area (Dempsey, 2007; Griend, 2011; Heydari et al., 2015; Jackson & Mannix, 2001; Manning & Neville, 2009; Schriner, 2007) has been conducted using qualitative methods and small sample sizes. Nevertheless, the results of these studies appear to support conclusions from larger studies, such as those by Carnwell (2014), Cangelosi et al. (2009) and Suplee et al. (2014).

It seems clear that insufficient preparation and support during role transition are likely to result in negative experiences of teaching among novice CNEs. Underpreparedness for the role considerably affects CNEs’ ability to use evidence-based teaching approaches and to undertake effective clinical evaluation (Suplee et al., 2014). Clinical nurse educators further reported difficulties in supporting students (McArthur-Rouse, 2008), teaching students critical thinking skills and alleviating student experiences of anxiety (Anibas et al., 2009). It is also evident that deficient training challenges CNEs in dealing with incivility among students, as well as with students with high intellectual ability, emotional disturbance, or learning and physical disabilities (Suplee et al., 2014). Clinical teaching experiences of CNEs without sufficient and effective preparation are thus depicted as “walking on the edge”, “fighting without
weapons” (Heydari et al., 2015, p. 141) and “mentoring in the dark” (Cangelosi et al., 2009, p. 369).

Limited guidance and preparation have also been found to contribute to CNE feelings of self-doubt and low confidence in clinical teaching (Dempsey, 2007; Heydari et al., 2015; Schriner, 2007). Low confidence further gives rise to the experience of stress (Chapman, 2013), anxiety when undertaking teaching activities, fear of their own inadequacy, fear of inability to fulfil their role and, more importantly, fear of inability to envisage the responsibilities associated with the educator role, particularly in the early stage of the transition (Dempsey, 2007). It has also been found that when lacking confidence in their new role, CNEs were inclined to hold onto their pre-existing role and identity as expert clinicians (Dempsey, 2007). According to Smith and Boyd (2012), reluctance to let go of their expert clinician identity considerably hampers their construction of a new identity as an educator. As such, low confidence is a hindrance to the role development of CNEs in their transition (Dempsey, 2007; Schriner, 2007).

Importantly, studies in this area have for the most part been conducted in developed countries using a qualitative methodology with small cohorts of participants. More well-planned, rigorous research that allows investigation of larger populations is therefore needed to contribute to understanding of the process of transition and factors associated with underpreparation and confidence development for the CNE role.

2.3.2. Adapting, socialising to a new role and developing a new identity

Limited preparation and the need to transition into a new role have led CNEs to develop a set of coping strategies to adapt and socialise to the new environment. These strategies vary and include conformity, self-navigation and the use of previous experience in clinical teaching (Heydari et al., 2015; Manning & Neville, 2009; Ramage, 2004).
example, in Ramage’s (2004) longitudinal grounded theory study, novice British CNEs reacted to feelings of social isolation by conforming to staff nurse expectations and suppressing their own professional identities in order to be included in the clinical culture. Meanwhile, Iranian participants shared their experience of “trying to dance according to any music they [hospital and university staff] play” to gain more knowledge about the culture of the nursing school and the clinical teaching environment (Heydari et al., 2015, p.142). Manning and Neville (2009) found that new CNEs in New Zealand were left in a quandary when they were required to establish new relationships with the same ward staff who were previously their colleagues when working as RNs. Expanding networks with senior CNEs was one coping strategy that CNEs employed to develop their own source of support and to overcome feelings of “chaos and turmoil” (Manning & Neville, 2009, p. 47). In other contexts, neophyte CNEs applied their previous experiences of students (Schriner, 2007) or their skills in teaching patients to teaching students in clinical settings (Clark, 2013). The challenge of socialisation is faced by novice CNEs all over the world, it seems. The implications and effectiveness of the coping strategies they adopt do not appear to have been tested or evaluated.

The stage at which novice CNEs use strategies to adapt to their new role marks the inception of the transformation from a clinician to an educator role (Janzen, 2010). This transformation stage is not a linear process but, rather, a reflexive passage in which they reflect on and learn from the educator role, return to reflect on the clinician role and so on (Cangelosi et al., 2009; Janzen, 2010). Research findings suggest that mixed feelings can occur during this stage. Using van Manen’s approach, Cangelosi et al. (2009) conducted 135 reflective narratives with 45 American CNEs. The authors found that while these CNEs were cognisant of feelings of frustration, fear and unease, which
they felt was partially due to the lack of guidance they had received and the uncertain nature of role transition, they also embraced the opportunity to learn new skills and were excited to make an impact on student learning. At the same time they recognised that “teaching is not a natural by-product of clinical expertise, but requires a skill set of its own” (Cangelosi et al., 2009, p. 371).

According to Janzen (2010), these mixed emotions are not necessarily associated with the lack of skills but, rather, indicative of the new values, norms and identity of an educator. These experiences are indicative of CNEs’ self-reflection, sense of self and awareness of self in their relationships with others in clinical settings. According to Higgs and McAllister (2007), these processes of self-reflection and internalisation are necessary in the development of the sense and identity of an educator. Stutz-Tanenbaum and Hooper (2009) further indicate that identity is dynamic rather than static and that identity will evolve, change, and be strengthened through emotional awareness, self-reflection, social involvement, and self-congruence. In a small study that used both focus group and individual semi-structured interviews with 10 CNEs, Clark (2013) found that the transition turning point for CNEs was when they reached some level of familiarity with the specific clinical setting and confidence with interacting and providing feedback to students. Paton (2007) conducted 32 interviews with nine CNEs and found that CNEs could only facilitate student learning when they were fully aware of the complexity of clinical situations and able to preserve their integrity, as well as dignity as a nurse and as a human being. The process of attaining the wisdom of a CNE, however, takes time (Paton, 2007).

Despite some negative experiences during transitions, CNEs gradually achieve the desired outcome, that is, the construction of an educator identity. Various terms are
used to describe CNEs’ successful transitions, such as “beginning” (Manning & Neville, 2009), “on the other side of the looking glass” (Janzen, 2010), “action” (Chapman, 2013), “evolving as a clinical instructor” (Griend, 2011) and “finding fulfilment in the role” (Clark, 2013). These terms illustrate novice CNEs’ reflection, internalisation and actualisation of professional values and responsibilities, which allows them to successfully perform their role (Chapman, 2013; Clark, 2013; Griend, 2011; Janzen, 2010; Manning & Neville, 2009).

According to Meleis (2010), the concepts of the role can be used to explain role development in the transition process. Meleis proposes a link between role insufficiency, role supplementation and role mastery in role transition. Role insufficiency is defined as impediments to, or the perception of difficulty in, understanding and performing the role. Role supplementation is referred to the strategies used to clarify understanding of the role and to support role performance. Role mastery is associated with the development of role identity, and confidence and competence in fulfilling the role. Research in this area thus far only addresses CNEs’ experience of these role concepts at individual levels, probably due to the limitations of qualitative research methods. Empirical findings in transitions have been drawn from qualitative studies that vary in sample size (from 4 to 45) but are mostly small with $n \leq 10$ (Chapman, 2013; Clark, 2013; Griend, 2011; Manning & Neville, 2009; McArthur-Rouse, 2008; Schriner, 2007). Aspects regarding the link between preparation strategies and CNEs’ confidence in performing their role (in other words, the links between role supplementation and role mastery) are yet to be explored.

As noted above, the majority of the research related to CNE transition has been conducted in developed countries and reported experiences of expert clinicians.
transitioning into clinical nursing education. There is a notable paucity of research reporting how CNEs are recruited to the clinical teaching role in developing countries, including Vietnam specifically. There is no literature that addresses the aspect of confidence development after transitioning from the role of nursing student to that of CNE as observed in Vietnamese and other Asian contexts. It has been reported that expert nurse clinicians may take years to develop the identity of CNE and the transition process is known not to be free of anxiety, stress, vulnerability, anger, fear and dissatisfaction (Cangelosi et al., 2009; Heydari et al., 2015; Ramage, 2004).

How CNEs who enter clinical nursing education with little clinical working experience develop their confidence in their new role is, however, unknown. The concepts of competence and confidence are inextricable (Bentley & Pegram, 2003) and CNEs’ confidence is considered integral to effective clinical teaching (Singh et al., 2013; Tang et al., 2005). There is however no existing instrument to measure CNE competence or confidence in their role. Therefore, investigation of the aspect of confidence and the factors that affect confidence development among CNEs is an essential step in future exploration of CNE competence in the clinical teaching role.

2.4. Summary

The clinical nursing education literature appears to focus on two main areas: (1) aspects related to the role of the CNE and (2), transition from the role of clinician to that of CNE.

Aspects related to the role of the CNE:

The CNE role is vital and complex and includes three core roles: educator, evaluator and liaison in clinical settings. Interpersonal skills, professional competence, teaching ability, evaluation and particular personal attributes are essential to the role. Research instruments that have been used to evaluate these attributes are not fully
validated. Competing demands and the lack of preparation and support are said to hinder CNE role effectiveness. Research in this area has mostly been conducted in developed countries, while knowledge about what facilitates and what hinders CNE confidence in undertaking the clinical teaching role in developing countries, and especially Vietnam, has not been investigated.

*Transition from the role of clinican to that of CNE:*

Transition experiences of expert nurses as they assume the role of academic nurse educators and CNEs have been explored in Western countries and found to be challenging. However, the transition into nursing education for those who have limited experience in both nursing practice and teaching, as seen in the Vietnamese context, has not been investigated. While CNE confidence is positively linked to competence in clinical teaching effectiveness, there is no reliable and valid instrument developed to measure CNE confidence in clinical teaching.

This study has thus been proposed to address these gaps in the literature in order to gain understanding of clinical nursing education in Vietnam, the measurement of CNE confidence in clinical teaching skills and the factors affecting CNE confidence and skill development. Further details about the research questions, study design and methods of data collection and analysis are explained in the next chapter.
Chapter Three: Methods

3.1. Introduction

In Chapter Two, the literature that sets the background for this study has been presented. In this chapter, the research aims and questions, the descriptive survey research design, sample and aspects of the survey method are described. The procedures involved in developing, testing and validating a survey instrument to measure clinical nurse educators’ (CNEs’) perceptions of role confidence are justified. The process of collecting and analysing the survey data to answer the research questions is also presented. In the final section of this chapter, ethical considerations involved in the study processes are reported.

3.2. Research questions

The aim of the study is to explore CNEs’ perceived confidence and associated factors related to clinical nursing education in Vietnam. The specific research questions to address the second aim are:

i. What are the models of recruitment of CNEs in Vietnam?

ii. How are CNEs prepared for their role in Vietnam?

iii. What level of perceived confidence do CNEs have in their ability to undertake the teaching role?

iv. Do CNEs develop their perceived confidence in clinical teaching competence over time?

v. Are there differences in perceived levels of confidence in clinical teaching competence between CNEs recruited from different models?
vi. Is there an association between role preparation, model of recruitment and levels of perceived confidence in clinical teaching competence?

vii. What are the facilitators and barriers to role confidence development among Vietnamese CNEs?

There was no existing instrument to measure CNEs’ perceived confidence in clinical teaching competence and thus it was necessary to develop a high-quality instrument to seek answers to the research questions.

3.3. Design

Descriptive survey research was considered the most appropriate design to achieve the research aims. Descriptive survey research design allows for descriptions of human behaviours, perceptions, opinions or beliefs about a particular issue to be summarised and quantified (Lodico et al., 2010). Surveys are used as a standardised method to collect information in order to describe or explain characteristics of the target population (Schofield & Knauss, 2010) and to explore relationships between different types of variables (Gray, 2009). A survey design is also particularly useful when the research population is dispersed geographically (Schofield & Knauss, 2010; Waltz, Lenz, & Strickland, 2010), as was the case in this study. The nature of this study is primarily descriptive, rather than an investigation of causal relationships. Cross-sectional surveys were therefore used to collect data at one period of time in all three phases. This survey type is effective in terms of time, financial and human resources (Bowling, 2014).

As in typical descriptive survey research (Lodico, Spaulding, & Voegtle, 2006), multiple phases were included in this study: designing a survey instrument; pre-testing; adjusting the instrument; establishing validity and reliability through two-phase piloting of the instrument; and finally administering the surveys to the entire research
population. To enhance the rigour and quality of the instrument, this study was divided into three phases. The first two phases focused on instrument development and validation. Phase Three focused on instrument administration in order to answer the research questions related to the second aim of the study. The overall structure of the study is illustrated in Figure 2.

![Study design](image)

Figure 2. Study design.

### 3.4. Sample

The research settings were colleges and universities in Vietnam where nursing programs are provided at collegiate (three years) and bachelor (four years) levels. A comprehensive list of 61 nursing universities and colleges accredited by the Vietnam Ministry of Education and Training and Ministry of Health was obtained by exhaustively searching of the official national guidebook for annual entry examinations to tertiary education in 2014. Contacts were made through either phone or email, or both, to managers of research departments, international relations offices and departments of nursing through information published in the guidebook and the institutions’ websites. Of the 61 institutions, 14 were either unreachable or did not reply after three follow-up attempts via phone and email. In seven other institutions, the
managers declined to participate in the research due to managerial constraints or internal policies. Another institution was excluded due to a potential conflict of interest. Three others were excluded because nursing programs at both bachelor and collegiate levels were not taught at the time of data collection (2014–2015). The population for all three phases comprised the 36 remaining institutions situated throughout Vietnam. There was no official record of the number of Vietnamese nurse educators by the Vietnamese Nurse Association; there were only estimates rather than accurate information about the number of CNEs at each institution, due to the use of multiple sources of teaching personnel from different faculties at each institution to teach students in clinical settings. The total number of potentially reachable CNEs at 36 institutions was estimated to be approximately 896.

The participant inclusion and exclusion criteria were uniform for all three phases of data collection. Nurse educators in Vietnam who were employed by a university or a college and engaged in clinical teaching of bachelor and/or collegiate nursing students in hospital settings were recruited for this study. Only those CNEs teaching in the areas of fundamental, medical and/or surgical nursing were chosen. Clinical nurse educators who did not meet the above criteria or were teaching in clinical psychiatry, emergency or end-of-life care were excluded to ensure homogeneity.

3.5. Conceptual framework

Transitions theory (Meleis, 2010) was used to guide the conceptual development and conduct of this study. Transitions are a passage “in between fairly stable states” (Meleis, 2010, p. 25). Transitions are multi-dimensional processes that involve multiple stages of changes and turning points. There are four types of transitions: developmental, situational, health-illness, and organisational. The focus of exploration in this study is
best reflected in the situational perspectives that are characterised by transitions in the roles (from clinician to CNE role), which denotes changes in role expectations, relationships and abilities. Figure 3 below illustrates the key components and characteristics of transition, and role concepts including role insufficiency, role supplementation and role mastery in relation to transitions.

Figure 3. Key dimensions of transitions and role concepts in relation to transitions.

*Note:* Situational transition is applied in this study. The rectangles indicate components of transitions. The ovals indicate role concepts applied to transitions. The red arrow indicates role supplementation as a preclusion or solution for role insufficiency. The green arrow indicates role mastery as a desired consequence of role supplementation.

The concepts of *Transitions theory* were integrated in the development of this study. The theoretical dimensions of the theory initially helped to gauge different pieces of relevant literature so as to inform a complete picture of transitions in nursing education internationally, as well as the gaps in the literature that need to be addressed.
Components and characteristics of transitions formed important dimensions of the surveys used to collect the research data. Some aspects of transitions, such as meaning, expectations, and emotional and physical wellbeing of individuals during transition, were not applicable in the current study due to the nature of the survey design. The adaptation of *Transitions theory* is illustrated in Table 1 below.
Table 1. The adaptation of transitions theory in the current study.

<table>
<thead>
<tr>
<th>Transition dimensions</th>
<th>Transition sub-dimensions</th>
<th>Variables in the current study</th>
<th>Role concept</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environment</td>
<td>Institution of employment</td>
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<td></td>
<td></td>
<td>CNE : student ratio</td>
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<tr>
<td>Conditions (facilitators &amp; barriers)</td>
<td>Years of previous classroom teaching experience</td>
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<td></td>
<td>Years of previous clinical teaching experience</td>
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<td></td>
<td>Years of previous practice experience</td>
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<td></td>
<td>Highest qualification</td>
<td></td>
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<tr>
<td>Properties</td>
<td>Awareness / changes / differences</td>
<td>Recruited as a new Bachelor of Nursing graduate</td>
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<td></td>
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<td>Background</td>
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<td></td>
<td>Engagement</td>
<td>Clinical teaching frequency</td>
<td></td>
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<td></td>
<td></td>
<td>Clinical practice frequency</td>
<td></td>
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<tr>
<td></td>
<td>Time span / critical point</td>
<td>Years of experience in the role of clinical teaching</td>
<td></td>
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<tr>
<td>Facilitators &amp; barriers (Most common institutional preparation methods)</td>
<td>Pedagogical course</td>
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<td></td>
<td>Teaching in stimulation labs</td>
<td>Workshop in clinical nursing education</td>
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<td></td>
<td>Compulsory previous practice</td>
<td>Practice &amp; teaching simultaneously</td>
<td>Role insufficiency Role supplementation</td>
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<tr>
<td></td>
<td>Mentorship</td>
<td>Guidelines</td>
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<td></td>
<td>Micro-teaching</td>
<td></td>
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<tr>
<td>- Indicators of healthy transitions</td>
<td>Level of perceived confidence</td>
<td></td>
<td>Role mastery</td>
</tr>
<tr>
<td>- Outcome indicators</td>
<td>- Developing confidence</td>
<td>Dichotomised level of perceived confidence</td>
<td>Role mastery</td>
</tr>
<tr>
<td>- Pattern of response</td>
<td>Role mastery</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.6. Aspects of surveys

3.6.1. Purpose

In this study, the surveys were used for three purposes: (1) to collect information for pretesting the instrument in Phase One; (2) to revalidate the instrument in Phase Two; and (3) to explore CNEs’ perceived confidence and associated factors in Phase Three. As a
result, three survey versions were used. They were named SURVEY I, SURVEY II and SURVEY III according to the three phases of the study.

3.6.2. Structure

The surveys were designed to be self-administered. All three surveys contained two parts. Part A included questions about demographic and background information, including frequency of clinical practice and teaching, recruitment methods, and support and preparation methods provided to CNEs for their role delivery. *Transitions theory* (Meleis, 2010) was used to guide the design of the questions, particularly the dimensions related to *conditions, properties, facilitators* and *barriers* to situational transitions.

Part B of the survey contained the content of the instrument to measure CNEs’ perceived confidence. Questions in this part reflected three other dimensions of *Transitions theory*, which were *patterns of response, indicators of healthy transitions* and *outcome indicators*. The number of items in each part varied in each phase as the result of the instrument development, modification and validation processes. The content of the instrument is reported in detail in section 3.7 of this chapter.

3.6.3. Distribution modes

In this study, the mode of survey distribution (internet and traditional mail surveys) was influenced by participant choice and access to internet services. Internet-based surveys were chosen as they are cost-effective and convenient to distribute to a dispersed population (Lavrakis, 2008; Waltz et al., 2010). Furthermore, the data collected from electronic surveys can be analysed quickly and efficiently (Dillman, Smyth, & Christian, 2009). Web-based surveys where participants complete the questionnaire through a website link sent via email or on the participant information sheet were used in this study. A website link was considered to be a safer option and to counteract any concerns
about privacy violation that may exist with the email survey method (Cho & LaRose, 2002). This method also reduces time and errors related to data entry, as participants’ responses are automatically saved to a separate spreadsheet (Reitz & Anderson, 2013).

However, low response rates have been reported with the use of web-based surveys (Dillman et al., 2009). Moreover, the success of the survey process is dependent on participants’ internet access and their computer literacy (Reitz & Anderson, 2013; Waltz et al., 2010). In order to resolve these disadvantages, a mail survey – a traditional survey mode using postal services – was used as an adjunct to the web-based surveys. Mail surveys are considered effective for thoughtful responses because participants can spend more time considering questions and answer at their convenience while privacy is still ensured (Lavrakis, 2008).

The combination of web-based and mail survey modes was to ensure that data were collected from different participants with differing needs in the same setting. It is generally recommended to use the more cost-effective method first, to be followed by higher cost methods if necessary (Dillman, Christian, & Smyth, 2014). However, in the Vietnamese context, internet coverage, facility, information technology literacy and the culture of e-communication were not uniform at all research sites. The prioritisation of the survey mode was therefore selected based on evaluation of the facility, culture and activities at each institution. This evaluation was undertaken by the researcher, managers and research champions (see section 3.6.4) to decide on the most effective survey mode at each institution.

Once the primary survey mode was determined, the other mode was offered to participants as a second alternative if they were unable to access the survey using the primary one. Such a combination of implementation modes can help to reduce errors
regarding poor coverage, sampling issues and low response rates (Dillman et al., 2014). Greenlaw and Brown-Welty (2009) report that mixed-mode surveys can also generate a higher response rate than a single mode of survey administration.

3.6.4. The use of champions in the survey process

Due to the nature of a multi-site study, survey distribution was undertaken with the assistance of champions at each institution. Champions are described as an important component of knowledge transfer, innovation implementation and projects (Doty & Glick, 1998; Lattin, Carroll, & Green, 2003; Podsakoff, MacKenzie, Jeong-Yeon, & Podsakoff, 2003; Richardson, Simmering, & Sturman, 2009). Self-confidence, enthusiasm, vision, cultural awareness, honesty, integrity and organisational experience are essential qualities that champions bring to the success of specific projects (Conway & Lance, 2010; Richardson et al., 2009; Scullen, Mount, & Judge, 2003). They influence projects by their intrinsic enthusiasm, by enlisting the support and engagement of stakeholders, and by passionately advocating for the projects through their network in the organisation (Podsakoff et al., 2003; Richardson et al., 2009; Scullen et al., 2003).

These principles were taken into account in this study in the recruitment of champions. The champions were either recruited through a snowball technique or introduced by the manager at an institution. They were employed by the participating institutions and had access to the database of nurse educator email addresses. These champions were provided with information and training to ensure they fully understood the research aims, procedures, participant inclusion and exclusion criteria, and other aspects of the survey process before each data collection phase commenced. The champions oversaw:

i. Recruiting of potential participants
ii. Assessing of potential participants’ eligibility to participate in the study

iii. Answering any questions raised by potential participants before or during the survey process

iv. Sending follow-up materials to potential participants

v. Distributing incoming surveys and collecting and returning completed mail surveys, and

vi. Sending feedback related to the survey process to the researcher.

A written guideline was provided to the champions to assist them during the processes. The guideline is located in Appendices 1 and 2 of this thesis.

3.6.5. Survey administration

The surveys were created and administered in Google Forms, which uses a cloud storage platform. Participant responses were automatically saved in the Google central data system. A spreadsheet containing participants’ answers was separately exported to a study-specific Google account. The spreadsheet was visible only to the researcher and her supervisors. Survey data were password-secured in accordance with ethical requirements and Google Security Policy. A hardcopy survey format was also prepared for mail distribution. In both survey formats, no identifying information was obtained. The anonymity of the respondents was therefore ensured.

According to Dillman et al. (2014), a social connection between the surveyor and respondents is essential to stimulate social exchange. An invitation letter to participate in the research and a Plain Language Statement were thus sent to CNEs either via email or with the assistance of the research champions. Multiple contact strategies (Dillman et al., 2014) were used to remind and encourage the CNEs to complete the survey. As Dillman et al. (2014) recommend, two follow-up emails or reminders were sent, one every
fortnight. Paper-based surveys were also posted to the champions. Participants subsequently returned the completed surveys in sealed envelopes. The calculation of the response rate was undertaken according to Fowler (2014) by dividing the total number of completed surveys from both electronic and paper-based modes by the total number of surveys sent to the eligible sample.

3.6.6. Strategies to minimise sampling errors

According to Dillman et al. (2014), survey errors caused by low coverage, poor sampling, high non-response rates and measurement errors may affect the quality of surveyed data. Multiple strategies were undertaken to minimise the potential risks of error in this study.

First, prior to the main survey administration, a pilot study was implemented to pre-test the survey instrument in several aspects: (1) survey construct; (2) clarity of the language used; (3) survey modes; (4) participant recruitment; (5) interactions between the researcher, participants and research champions; and (6) participant feedback. Steps to restructure, clarify and advance the instrument content were undertaken based on the pilot results. All modifications to the instrument were made based on statistical evidence, expert consultation and feedback from participants to include multi-perspectives in the development and advancement of the instrument. Translation and back-translation were implemented both before and after the pilot study to enhance the clarity of the language used. Thus, the validity and accuracy of the instrument were ensured.

Second, as suggested by De Vaus (2014), a Plain Language Statement (Appendices 3 and 4) was sent together with the main survey to provide participants with details about the research aims, procedures, voluntary nature of participation and
how confidentiality as well as anonymity would be maintained. For the web-based surveys, a cover page was also inserted prior to the main content to guide participants through the survey. Champions were available to answer any survey-related enquiries at all research sites. These strategies were used to provide participants with as much support as possible so as to avoid confusion or misunderstanding during the survey process.

Third, mixed-mode surveys were used to increase the survey coverage and response rates (Dillman et al., 2014; Greenlaw & Brown-Welty, 2009)(Dillman et al., 2014; Greenlaw & Brown-Welty, 2009)(Dillman et al., 2014; Greenlaw & Brown-Welty, 2009)(Dillman et al., 2014; Greenlaw & Brown-Welty, 2009)(Dillman et al., 2014; Greenlaw & Brown-Welty, 2009)(Dillman et al., 2014; Greenlaw & Brown-Welty, 2009). Multiple contacts and follow-up reminders from the researcher, site champions and managers were additionally used to encourage CNEs to respond to the survey. As a result of the efforts taken with the survey process, high response rates were achieved in all three phases.

3.6.7. Preparing survey data for analysis

Statistical Package for the Social Sciences (SPSS) software version 22.0 was used to assist in quantitative data analysis. Random checking for accuracy of data entry was conducted by comparing the datasets with the original paper surveys. Data cleaning for unengaged surveys, outliers and missing data was undertaken for the entire dataset, which included responses from both web-based and paper surveys. In particular:

- If surveys included a considerable amount of missing data, those surveys were omitted so as not to affect the quality of the entire dataset.
• If the missing data were related to part A (demographic and background information), they were examined case by case and later replaced by total mean score where appropriate.

• If the missing data in Part B (survey instrument to measure CNEs’ perceived confidence) were considerable, those entire surveys were omitted so as not to affect the quality of the entire dataset and the subsequent analysis.

• If the missing data in part B were less than 10% (fewer than four items in Phase One or three items in Phases Two and Three) (survey instrument to measure CNEs’ perceived confidence), the missing values were replaced by a total mean score.

• Unengaged surveys were identified as the standard deviation among all items in Part B less than .3 and were omitted.

3.7. Instrument development and validation

The survey instrument in this study was developed from the platform of the Nurse Education Skill Acquisition Assessment tool (NESAA) (Ramsburg & Childress, 2012) with the consent of the authors (Appendix 5) to measure the confidence of nurse educators in the classroom setting. The NESAA instrument was conceptualised based on the Dreyfus Model of Skill Acquisition framework (Ramsburg & Childress, 2012) (Appendix 6) incorporating 40 items and eight domains, in accordance with the eight competency domains for nurse educators described by the US National League for Nursing (2005). The NESAA was reported to have high statistical reliability (.98 for the overall scale, ranging from .85 to .90 for the eight subscales). However, at the time of this study, the instrument is yet to be fully validated.

Factor analysis – a common method in instrument development research was used to develop and validate the survey instrument in this study. The instrument was
named the Clinical Nurse Education Skill Acquisition Assessment (CNESAA). Factor analysis is a multivariate technique used to identify the dimensions and structure underlying a dataset through the analysis of correlations among the variables or groups of variables (Hair, Black, Babin, & Anderson, 2010). This method incorporates exploratory and confirmatory techniques.

Exploratory factor analysis (EFA) is applied when the factorial theory is tentative and the researchers wish to explore the theoretical structure of the dataset and possibly to reduce the number of items from a defined pool of items (Ferguson & Cox, 1993). Confirmatory factor analysis (CFA) is, by contrast, suitable when the conceptual ground is solid enough to allow a hypothesised model to be tested and confirmed (Hair et al., 2010, Ferguson & Cox, 1993). Despite the differences in statistical and methodological aspects, completing factor analysis after using an EFA with a further analytical step of CFA on a different sample is strongly recommended (Hair et al., 2010, Ferguson & Cox, 1993). In this study, the combination of EFA (Phase One) and CFA (Phase Two) conducted on two separate samples has allowed a sufficiently rigorous conclusion about the reliability and validity of the CNESAA instrument.

3.7.1. Phase One – Instrument development

3.7.1.1. Purpose

i. To develop and psychometrically test the CNESAA instrument to measure CNEs’ perceived confidence.

ii. To test the application of self-administered surveys in the Vietnamese context.

3.7.1.2. Item adaptation

In adapting the NESAA for the CNESAA, two items were omitted from the original 40 items of the NESAA as they are not relevant to the clinical setting. The remaining 38
items were adapted to focus on the educational activities of CNEs. Five Likert-point scale options: 1 – low confidence, 2 – moderately low confidence, 3 – moderate confidence, 4 – moderately high confidence and 5 – high confidence and its eight subscales remained the same as the original NESAA. The eight domains and the number of items per domain are:

- Facilitate learning (items 1–5)
- Facilitate learner development and socialisation (items 6–10)
- Use assessment and evaluation (items 11–14)
- Participate in curriculum design and program evaluation (items 15–19)
- Function as a change agent and leader (items 20–23)
- Pursue continuous quality improvement of clinical teaching (items 24–28)
- Engage in scholarship (items 29–33)
- Function within the educational environment (items 34–38).

### 3.7.1.3 Translational validation

The CNESAA instrument version 1 was translated into Vietnamese and then back-translated into English by two bilingual experts in nursing education, to ensure the clarity of the language used. Vietnamese and English versions of the scale were reviewed by a panel of experts (excluding the research team). The panel included two Australian and two Vietnamese experts with eight to more than twenty years of experience in nursing education and practice. The panel evaluation considered four dimensions: relevance, clarity, sufficiency and appropriateness of every item, in relation to its subscale as well as the overall scale. As a result of this review, minor changes were made (version 2) and face validity was established.
3.7.1.4. Pilot data collection

Data were collected using SURVEY I, which included two parts. Part A consisted of 16 demographic questions related to age, gender, background, qualification and a number of other aspects associated with the clinical teaching role and preparation for the role. Part B incorporated the CNESAA scale (version 2) with 38 5-point Likert-like items fully labelled. A copy of SURVEY I is located in Appendices 7 and 8.

Although purposive sampling is extensively used in qualitative studies for selecting individuals (Babbie, 2010; Tappen, 2011), this sampling approach was used in this pilot phase to purposefully select institutions. The importance of the pilot population has been emphasised for its meaning for the instrument development process and the subsequent survey administration (Brink & Wood, 1998). Therefore, a pilot population from different geographical and economic areas, as well as from both public and private university sectors, was targeted so as to be representative of diverse groups of institutions in Vietnam. Any modification needed for the instrument could then become applicable across educational settings. As a result, five institutions, including one private university and four government universities and colleges located across a range of distinct geographical areas (north, centre and south) in Vietnam, were selected.

Surveys were sent to 138 participants from 23/06/2014 to 30/08/2014 via both web-based and paper-based modes. There were 109 surveys returned, contributing to a response rate of 79%. These returned surveys comprised 73.4% \((n = 80)\) and 26.6% \((n = 29)\) of mailed and web-based surveys respectively. Of the 109 returned surveys, 5 contained substantial missing data and therefore were omitted. For the purposes of an EFA in instrument development, \(n = 50\) is considered a minimum requirement and a preferable sample size is from 100 (Hair et al., 2010). A sample size of 104 is therefore
admissible. Sampling adequacy was later checked using the Kaiser–Meyer–Olkin test. The appropriateness of the data for EFA was also examined using Barlett’s Test of Sphericity.

3.7.1.5. Exploratory factor analysis

As the result of the EFA, the length of the CNESAA instrument was shortened from 38 to 24 items. These 24 items were further revised and reworded to enhance clarity. Based on the pattern matrix yielded from the EFA, the 24 items were reorganised into five sub-categories: 1 – Enhancing student learning, 2 – Relating theory and practice, 3 – Engaging in scholarship, 4 – Functioning as a leader and 5 – Participating in professional development. In consideration of respondents’ feedback, and consultation with experts in statistics and psychometrics, the scale format of the CNESAA was also transformed. From a 5-point Likert-like scale, the instrument was changed to a 10-point numerical scale ranging from 0–9 labelled at the two ends (from 0 – Not confident at all to 9 – Extremely confident).

3.7.1.6. Establishing reliability and validity

3.7.1.6.1. Reliability

Measuring the reliability of an instrument means measuring its consistency (Lodico et al., 2006; Tappen, 2011). The aspect of reliability to be examined in this study was internal consistency. Cronbach’s alpha, also called coefficient alpha, was used as an estimation of reliability coefficient (Trobia, 2008) and an indicator of the homogeneity of the instrument (Alwin, 2010; Tappen, 2011). Cronbach’s alpha reflects the extent to which a group of items significantly correlate to each other in measuring the same construct (Tappen, 2011). In general, an alpha value above .7 indicates high internal consistency (Hair, Hult, Ringle, & Sarstedt, 2014), although some other authors suggest
.75 or .80 thresholds (Trobia, 2008). It is advised to calculate Cronbach’s alpha values for each of the subscales (Tappen, 2011) and after factor analysis, in order to reflect the actual correlations of items in a subscale (Trobia, 2008).

In this study, after instrument respecification, Cronbach’s alpha values ranged from .83 to .92 for the five subscales and .95 for the overall scale of the third version of the CNESAA. All item-to-total correlations exceeded .50 and inter-item correlations were greater than .30. These values demonstrate the high reliability and consistency of the CNESAA in measuring CNEs’ perceived confidence in teaching in hospital settings.

3.7.1.6.2. Validity

Validity refers to the accuracy of an instrument in measuring the intended values (Colton & Covert, 2007; Lodico et al., 2006). The two criteria for validity applied in this study were content and construct validity. Content validity is the extent to which items of the scale are representative for the construct that the scale aims to measure (Colton & Covert, 2007; Lodico et al., 2006). The examination should be undertaken by three or four experts in the field (Colton & Covert, 2007). As mentioned, the CNESAA was reviewed prior to commencing factor analysis by a panel of experts. Following the EFA and scale modification, the CNESAA version 4 was translated and back-translated by a bilingual nurse educator. Both Vietnamese and English versions of the CNESAA version 4 were reviewed again for relevance, clarity, sufficiency and appropriateness of every item, in relation to the subscales as well as the overall scale. As the CNESAA version 4 was confirmed by the expert panel, content validity was established.

According to Lodico et al. (2006, p.94), construct validity “involves a search for evidence that an instrument is accurately measuring an abstract trait or ability”. Construct validity includes two aspects: convergent and discriminant validity (Colton &
Covert, 2007). To achieve convergent validity, items that measure the same construct need to be highly correlated to each other (Colton & Covert, 2007). In statistical terms, this means related items significantly load on the same construct (subscale), at the same time, and do not significantly cross-load on other constructs (Hair et al., 2014). In general, item loadings greater than .4 are considered high (Hair et al., 2014). Discriminant validity, on the other hand, requires unrelated items to be not too strongly correlated to each other (Colton & Covert, 2007), which means correlations between different factors (also called constructs or subscales) of less than .7 (Hair et al., 2014). In this study, convergent and discriminant validity were both established with high-loading items, low cross-loading items and low correlations between the five factors.

3.7.1.7. Validation of EFA

Validation of factor analysis is important so as to assess the generalisability of the outcomes to the population (Hair et al., 2014). This validation can be undertaken using one of several approaches. One of the approaches is the internal technique that replicates the factor analysis on samples that are randomly split from the main dataset (Hair et al., 2014). The validation can also be done using CFA (Hair et al., 2014; Lattin et al., 2003). Both approaches were used in this study to ensure the robustness of the CNESAA.

In Phase One, the stability of factor structure was assessed to validate the above factor analysis through an internal replication technique. More than 70% of the factor matrixes (EFA extraction) of the two sub-datasets were similar to the factor matrix of the respecified CNESAA. This result demonstrates that the model of the 24-item and 5-subscale CNESAA (version 4) thus was a potential scale to measure the perceived confidence of CNEs. Phase Two data collection was continued in order to revalidate this result.
3.7.2. Phase Two – Instrument revalidation

3.7.2.1. Purpose

The purpose of this phase was to revalidate the conceptual model of the CNESAA version 4 using the CFA technique on another sample.

3.7.2.2. Data collection

Some demographic and background questions from SURVEY I were revised and another question was added. SURVEY II thus included 17 questions in Part A. Part B was the fourth version of the CNESAA instrument with 24 items reformatted in a numerical scale labelled at the two ends: 0 – Not confident at all and 9 – Extremely confident. A copy of SURVEY II is located in Appendices 9 and 10.

According to Hair et al. (2010), the minimum sample size for CFA is five observations per item and ideally there should be ten observations per item. This means that for a model of 24 items such as the CNESAA, an acceptable sample size ranges from 120 to 240. Sampling was conducted until an optimum sample size of 240 was achieved with an approximately 5% margin to allow for any missing data should that have occurred. During the period from 01/11/2014 to 31/12/2014, surveys were sent to 330 CNEs from twelve institutions. There were 254 completed surveys returned. The response rate in this phase was 77%, including 96% (n = 244) and 4% (n = 10) from mailed and web-based surveys respectively. Of the 254 surveys, 3 with standard deviations for all questions in Part B of less than .3 (Hair et al., 2014) were defined as “unengaged” and omitted. The total number of surveys retained was 251.

3.7.2.3. Confirmatory factor analysis

Fit indices are used as indicators of the fitness of a hypothesised model (Hair et al., 2014). The Goodness of Fit Index (GFI) is a fit statistic ranging from 0 to 1. Although an
objective standard does not exist, typically a GFI value above .9 is considered acceptable model fitness. The Adjusted Goodness of Fit Index (AGFI) is a differentiation of model complexity. An AGFI value greater than .8 indicates acceptable fitness (Lattin et al., 2003). The Comparative Fitness Index (CFI) – an incremental fit index – assesses the fitness of a specific model in relation to alternative baseline models. A CFI value above .9 is usually associated with well-fitted models (Hair et al., 2014). The Root Mean Square Error of Approximation (RMSEA) is a measure of how well the model fits the tested population. An RMSEA value lower than .1 is largely acceptable (Hair et al., 2014). These seminal authors (Hair et al., 2014) also warn that these cut-off points should only be used as guides, rather than rules for accepting or rejecting a model.

In this study, model fitness was evaluated using minimum discrepancy statistics (CMIN/df = 2.41, df = 238). Standardised loadings for all items ranged from .66 to .85. Model fit indices were: CFI = .92, GFI = .84, AGFI = .80 and RMSEA = .083. Although the GFI value is slightly below the typical threshold of .9, the model of the CNESAA was hypothesised on a strong conceptual base and rigorous EFA process, so this model can be considered acceptably fit. Average Variance Extracted values ranged from .55 to .67 (from a standardised solution). These results demonstrate the validity of the conceptual model of CNESAA developed and modified in Phase One.

Reliability can also be assessed using construct reliability (CR) – one of the results of CFA. Construct reliability values above .7 suggest high reliability (Hair et al., 2014). In Phase Two, CR values yielded range from .8 to .9. The outcomes of Phase One and Two illustrate that construct validity and internal consistency and reliability were established. The CNESAA instrument (version 4) was ready for use in the entire research population, as well as potentially in other settings.
3.8. Phase Three – Instrument administration

3.8.1. Data collection

STATA software version 13.0 was used to determine the sample size for Phase Three. The chance of a type I error of failure to accept the null hypothesis when it was accurate was assumed to be 5% (α = .05). The chance of a type II error of failure to reject the null hypothesis when it was false was assumed to be 10% (β = .1). The power of the analysis to detect five score differences in a bivariate mean comparison in Phase Three (i.e. an independent t-test for mean comparison) was thus 90% (1 - β = .9). From the results of the pilot study, the mean score for perceived confidence between different groups of participants was estimated to be 80 ± 13. For this scenario, 288 participants (144 participants in each group) were needed for statistical analysis in Phase Three. The sample size was inflated by 15% to additionally deal with multivariable analysis. The overall sample size required for Phase Three was thus 331.2 (N ≥ 288 + 288x15% = 331.2).

Through the results of the data analysis in Phase Two, the structure of the CNESAA instrument was confirmed to be valid and reliable to measure perceived confidence among CNEs. The content of the overall survey to collect data in Phase Three was similar to that in Phase Two (Appendices 9 and 10). With assistance from the champions, surveys were distributed to CNEs at 19 institutions. It was estimated that there were appropriately 428 accessible CNEs from these 19 institutions. Phase Three data collection took place from 15/01/2015 to 15/03/2015. After three follow-ups at every institution, 343 (94.5%) paper-based and 13 (5.5%) web-based surveys were returned, contributing to an estimated response rate of 83.2%. After data cleaning, the
number of valid cases were 334, illustrating that the study was well powered for the subsequent analysis.

3.8.2. Data analysis

Descriptive analysis was used to answer the first three research questions regarding recruitment, preparation methods and participants’ perceived levels of confidence. Analysis of variance (ANOVA) or independent t-tests were used to compare groups’ mean differences in perceived confidence score. This was followed by linear regressions to simultaneously explore the factors associated with perceived confidence. Perceived confidence was subsequently dichotomised using a variable transformation technique based on the distribution of confidence levels. Logistic regression was then used to model the factors associated with a higher level of perceived confidence. Lists of independent and dependent variables and their measurements are presented in Table 2.

<table>
<thead>
<tr>
<th>Variable name</th>
<th>Independent variable</th>
<th>Dependent variables</th>
<th>Measurement type</th>
<th>Value range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>Yes</td>
<td>Scale</td>
<td>20–75</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>Yes</td>
<td>Dichotomous</td>
<td>Male = 0, Female = 1</td>
<td></td>
</tr>
<tr>
<td>Year of previous classroom teaching experience</td>
<td>Yes</td>
<td>Scale</td>
<td>0–40</td>
<td></td>
</tr>
<tr>
<td>Year of previous clinical teaching experience</td>
<td>Yes</td>
<td>Scale</td>
<td>0–40</td>
<td></td>
</tr>
<tr>
<td>Year of previous practice experience</td>
<td>Yes</td>
<td>Scale</td>
<td>0–40</td>
<td></td>
</tr>
<tr>
<td>Years of experience in the role of clinical teaching</td>
<td>Yes</td>
<td>Scale</td>
<td>0–40</td>
<td></td>
</tr>
<tr>
<td>Background</td>
<td>Yes</td>
<td>Nominal</td>
<td>- Nursing</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Medicine</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Other</td>
<td></td>
</tr>
<tr>
<td>Highest qualification</td>
<td>Yes</td>
<td>Nominal</td>
<td>- Bachelor of Nursing</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>- Postgraduate in nursing</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Postgraduate in health sciences</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>- Medical doctor / Master’s of medicine</td>
<td></td>
</tr>
</tbody>
</table>

Table 2. Lists of independent and dependent variables.
| Preparation method – pedagogical courses | Yes | | Dichotomous | No = 0, Yes =1 |
| Preparation method – teaching in stimulation labs | Yes | |  |
| Preparation method – workshops in clinical nursing education | Yes | |  |
| Preparation method – compulsory previous practice | Yes | |  |
| Preparation method – practice & teaching simultaneously | Yes | |  |
| Preparation method – mentorship | Yes | |  |
| Preparation method – guidelines | Yes | |  |
| Preparation method – micro-teaching | Yes | |  |
| Level of perceived confidence | Yes | Scale | 0 - 100 |
| Dichotomised level of perceived confidence | Yes | Dichotomous | 0 = low, 1 = high |
| CNE : student ratio | Yes | Ordinal | 1) 1: less than 10 students 2) 1: 11–15 students 3) 1: 16–20 students 4) 1: 21–25 students 5) 1: more than 26 students |
| Clinical teaching frequency | Yes | Ordinal | 1) 1-day/week 2) 2 days/week 3) 3 days/week 4) 4 days/week 5) 5 days/week |
| Clinical practice frequency | Yes | Ordinal | 1) Currently not practice 2) 1-day/week 3) 2 days/week 4) 3 days/week 5) 4 days/week 6) 5 days/week 7) Periodically and depending on institutional schedule |

3.9. Ethical considerations

Ethics approval was granted by the Deakin University Human Ethics Advisory Group – Faculty of Health (DU HEAG-H 103_2014) (Appendix 11). This department was further notified of the changes in the contents of the surveys after instrument modification.

Ethics approval was subsequently granted for these modifications (Appendix 12).

Permission to conduct the research was also sought from and granted by the managers at the participating institutions in Vietnam. The participants in this study – the CNEs –
were not considered a vulnerable population according to De Vaus’s (2014) classification. Only human perspectives and experiences were collected through the surveys included in the study. The study was considered low risk.

3.9.1. Informed consent

Potential participants were provided with an information sheet containing details about the research purpose, procedures, potential benefits and risks involved, and voluntary nature of participation. By completing and returning the survey, participants expressed their consent to participate in the study.

3.9.2. Privacy, confidentiality and anonymity

Privacy, confidentiality and anonymity for participants were ensured as no personal identifying information was collected. The participants were also asked not to reveal their name, or postal or email address in the survey. The returned completed surveys were only accessible to the research team. As privacy invasion also means being given or contacted for unwanted information (Sieber, 1992), participants were requested to email the researcher should they wish to discuss the study findings at the completion of the study. These email addresses could not be matched with the responses in the anonymous surveys. A summary of the study findings will also be sent to institution managers who requested a copy.

3.9.3. Risks, benefits and protection from harm

No physical risks for participants were anticipated by participating in this study. In order to facilitate participant comfort, an information sheet was provided, the surveys were used in Vietnamese – the mother tongue of the participants – and research champions were made available if participants had any questions during the survey process. Participants were also informed about their right to not participate or to withdraw from
the study without any comment or penalty. However, it was also explained to participants that once the survey was returned to the researcher, participants could not withdraw from the study as the surveys were anonymous. The participation in this study did not provide any financial benefits for the participants.

3.9.4. Storage and management of data

The research data will be preserved for a minimum period of five years from publication date in accordance with institutional and national policies. Paper-based data are kept in a locked cabinet at the School of Nursing and Midwifery, Deakin University. Electronic data have been stored in password-protected files in the Deakin University informatics system, which ensures the security and recoverability of the data in case of loss. Back-ups of the data have been uploaded to cloud storage and updated in portable disks on a regular basis. A high-quality anti-virus program has also been used to ensure the security of the data.

3.10. Summary

The design, research procedures and survey process applied in this study have been reported. Descriptive survey research design has been used to guide the conduct of this study. The study involved three phases: (1) instrument development; (2) instrument revalidation; and (3) instrument administration. Cross-sectional surveys were administered in two modes: via a web-page and on hard copy, with the assistance of champions at each institution in order to collect data from CNEs in Vietnam. Validity and reliability of the CNESAA instrument were established in Phase One and reconfirmed in Phase Two. Details of the analysis and results of these two phases are elaborated on in Chapter Four.
Chapter Four: The Development and Validation of the CNESAA

4.1. Introduction

Following the methods chapter, the results of the first two phases focusing on the development and validation of the Clinical Nurse Educator Skill Acquisition Assessment (CNESAA) tool are presented in two sections in this chapter. The discussion in section one describes the study processes in Phase One, including item identification, item adaptation, piloting and establishing reliability and validity using exploratory factor analysis (EFA). Modifications to advance the content and format of the CNESAA are also explained in this section. In section two, the results of Phase Two, the revalidation of the modified CNESAA through a confirmatory factor analysis (CFA) approach, are reported. Demographic and background information of the participants in the two phases are described separately as the result of the two separate samples. The outcome of these two phases is a reliable and validated CNESAA to measure perceived confidence among clinical nurse educators (CNEs) in Vietnam. Figure 4 below summarises the multiple research procedures in the two phases.
Figure 4. Processes used to develop and validate the CNESAA.
4.2. Phase One – Instrument development

4.2.1. Demographic results

Five institutions from the three main geographical areas of Vietnam (north, centre and south) participated in the pilot study. One hundred and nine (109) returned surveys account for a response rate of 78%. After data screening, cleaning and removal of unengaged responses, 104 valid survey responses were retained. Of the 104 participants, there were 78 females (75%) and the majority were between 20 and 30 years of age ($n = 71, 68.3\%$). Of the 104, 90 participants (86.5%) had backgrounds in nursing and 14 (13.5%) had majored in medicine or other health disciplines. More than half ($n = 65, 62.5\%$) of the participants had been trained at undergraduate levels and 15.4% ($n = 16$) held postgraduate degrees in nursing. This demographic information is summarised in Table 3\(^2\).

| Table 3. Demographic characteristics of the participants in Phase One. |
|-----------------------------|-----|-----|
| Gender                      | n   | %   |
| Male                        | 26  | 25.0|
| Female                      | 78  | 75.0|
| Age group                   |     |     |
| 20–25                       | 22  | 21.2|
| 26–30                       | 49  | 47.1|
| 31–35                       | 13  | 12.5|
| 36–40                       | 7   | 6.7 |
| More than 40                | 13  | 12.5|
| Background                  |     |     |
| Nursing                     | 90  | 86.5|
| Medicine                    | 12  | 11.5|
| Other                       | 2   | 2.0 |
| Highest qualification       |     |     |
| Collegial Degree of Nursing | 16  | 15.4|
| Bachelor of Nursing         | 49  | 47.1|
| Master of Nursing           | 15  | 14.4|
| Doctor of Nursing           | 1   | 1.0 |
| Master’s degree in health-related discipline | 10 | 9.6 |

\(^2\) Discrepancies in the total numbers displayed under higher qualifications and background reflects the number of nurse educators with background in nursing or medicine who also had postgraduate qualifications in other health-related sciences.
### 4.2.2. Exploratory factor analysis

In order to develop a high-quality instrument, the six-stage approach of Hair, Black, Babin and Anderson (2010) was strictly adhered to. An additional stage – stage seven – was also included to reflect modifications to improve the CNESAA instrument.

**4.2.2.1. Stage 1 – Objectives of factor analysis**

The objectives of the EFA were to identify the dimensions underlying the dataset, to reduce the scale’s length and to guide scale purification if necessary to establish construct validity.

**4.2.2.2. Stage 2 – Designing a factor analysis**

The EFA was designed and conducted in R-type with the 38 numeric items of the CNESAA instrument in the sample of 104 participants. The extraction method of Principal Axis Factoring with Promax rotation was selected.

**4.2.2.3. Stage 3 – Testing assumptions of factor analysis**

Barlett’s Test of Sphericity was significant ($p < .05$), demonstrating that the dataset was appropriate for the EFA. The Measure of Sampling Adequacy (MSA) value was .91 for the overall dataset and ranged from .81 to .96 for the 38 items individually. These results indicate significant correlation among the variables and an adequately appropriate sample to continue the analysis.

**4.2.2.4. Stage 4 – Deriving factors and assessing overall fit**

Principal Axis Factoring with Promax rotation was computed. The *latent root* (Eigenvalue greater than 1), *percentage of variance* and *Scree plot* were used as guidelines to select the optimum number of factors. In this study, in the Scree plot
(Figure 5), the curve cuts off at five factors before starting the straight line. Five factors explained 68% of the variance in the dataset, manifesting the optimum model of five factors for the dataset. Of the 38 items, there were only 22 significant items loaded on five factors (Table 4). These results demonstrate the need for modification to improve the fitness of the model.

Figure 5. Scree plot.
Table 4. Factor loadings for the exploratory factor analysis with promax rotation of the CNESAA (38 items).

<table>
<thead>
<tr>
<th>Item number</th>
<th>Item label</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Factor 4</th>
<th>Factor 5</th>
<th>Commonalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Identifying essential clinical teaching content that meets placement objectives.</td>
<td>-.17</td>
<td>.30</td>
<td>.05</td>
<td>.10</td>
<td>.53</td>
<td>-.17</td>
</tr>
<tr>
<td>2</td>
<td>Organising clinical situations that provide opportunities for nursing knowledge to be developed.</td>
<td>.19</td>
<td>-.17</td>
<td>-.10</td>
<td>.81</td>
<td>.06</td>
<td>.19</td>
</tr>
<tr>
<td>3</td>
<td>Understanding how placement content meets curriculum objectives.</td>
<td>-.03</td>
<td>.18</td>
<td>-.10</td>
<td>.11</td>
<td>.65</td>
<td>-.03</td>
</tr>
<tr>
<td>4</td>
<td>Developing a plan to assist individual students in clinical learning difficulty.</td>
<td>.60</td>
<td>.28</td>
<td>-.33</td>
<td>.01</td>
<td>.18</td>
<td>.60</td>
</tr>
<tr>
<td>5</td>
<td>Developing innovative strategies for student success and retention.</td>
<td>.58</td>
<td>-.18</td>
<td>-.14</td>
<td>.25</td>
<td>.32</td>
<td>.58</td>
</tr>
<tr>
<td>6</td>
<td>Identifying your own clinical teaching style.</td>
<td>.22</td>
<td>.22</td>
<td>-.10</td>
<td>.23</td>
<td>.31</td>
<td>.22</td>
</tr>
<tr>
<td>7</td>
<td>Discriminating between different teaching and learning styles in clinical settings.</td>
<td>.38</td>
<td>.20</td>
<td>-.09</td>
<td>.18</td>
<td>.19</td>
<td>.38</td>
</tr>
<tr>
<td>8</td>
<td>Understanding how your own clinical teaching style contributes to curricular outcomes.</td>
<td>.19</td>
<td>-.20</td>
<td>.16</td>
<td>.40</td>
<td>.32</td>
<td>.19</td>
</tr>
<tr>
<td>9</td>
<td>Altering your clinical teaching style to accommodate student learning styles.</td>
<td>.33</td>
<td>.29</td>
<td>-.13</td>
<td>.30</td>
<td>.11</td>
<td>.33</td>
</tr>
<tr>
<td>10</td>
<td>Designing new clinical teaching strategies.</td>
<td>.83</td>
<td>.12</td>
<td>-.05</td>
<td>.10</td>
<td>-.06</td>
<td>.83</td>
</tr>
<tr>
<td>11</td>
<td>Identifying basic assessment/evaluation strategies.</td>
<td>.38</td>
<td>.14</td>
<td>.12</td>
<td>.20</td>
<td>.06</td>
<td>.38</td>
</tr>
<tr>
<td>12</td>
<td>Choosing effective assessment/evaluation strategies in appropriate clinical settings.</td>
<td>.39</td>
<td>.07</td>
<td>-.01</td>
<td>.52</td>
<td>-.11</td>
<td>.39</td>
</tr>
<tr>
<td>13</td>
<td>Altering clinical assessment/evaluation strategies based on clinical situation analysis.</td>
<td>.46</td>
<td>.12</td>
<td>-.16</td>
<td>.56</td>
<td>-.13</td>
<td>.46</td>
</tr>
<tr>
<td>14</td>
<td>Designing new assessment/evaluation strategies for teaching in clinical environment.</td>
<td>.79</td>
<td>.08</td>
<td>.07</td>
<td>.01</td>
<td>.05</td>
<td>.79</td>
</tr>
<tr>
<td>15</td>
<td>Understanding overall curriculum design and clinical placement design.</td>
<td>.08</td>
<td>-.09</td>
<td>.23</td>
<td>-.16</td>
<td>.82</td>
<td>.08</td>
</tr>
<tr>
<td>16</td>
<td>Understanding different curricular clinical components.</td>
<td>.05</td>
<td>.03</td>
<td>.13</td>
<td>-.08</td>
<td>.80</td>
<td>.05</td>
</tr>
<tr>
<td>17</td>
<td>Participating in clinical education evaluation.</td>
<td>.31</td>
<td>.11</td>
<td>.20</td>
<td>-.15</td>
<td>.49</td>
<td>.31</td>
</tr>
<tr>
<td>18</td>
<td>Suggesting changes to clinical education program evaluation process.</td>
<td>.39</td>
<td>.12</td>
<td>.27</td>
<td>-.13</td>
<td>.23</td>
<td>.39</td>
</tr>
<tr>
<td>19</td>
<td>Designing innovative teaching strategies to improve clinical nursing education.</td>
<td>.84</td>
<td>-.28</td>
<td>.14</td>
<td>.18</td>
<td>.02</td>
<td>.84</td>
</tr>
<tr>
<td>20</td>
<td>Identifying your own leadership style in clinical environment.</td>
<td>.06</td>
<td>.09</td>
<td>.03</td>
<td>.68</td>
<td>-.07</td>
<td>.06</td>
</tr>
<tr>
<td>21</td>
<td>Understanding how your personal style may be used effectively to promote changes in educational settings.</td>
<td>.13</td>
<td>.24</td>
<td>.28</td>
<td>.37</td>
<td>-.09</td>
<td>.13</td>
</tr>
<tr>
<td>22</td>
<td>Functioning as a leader in your parent institution.</td>
<td>.32</td>
<td>-.33</td>
<td>.37</td>
<td>.52</td>
<td>-.10</td>
<td>.32</td>
</tr>
<tr>
<td>23</td>
<td>Leading efforts to encourage interdisciplinary collaboration at multi levels including nationally and internationally.</td>
<td>.58</td>
<td>-.07</td>
<td>.47</td>
<td>-.08</td>
<td>-.17</td>
<td>.58</td>
</tr>
<tr>
<td></td>
<td></td>
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<tr>
<td>---</td>
<td>-----------------------------------------------------------------</td>
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<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Identifying personal professional development needs.</td>
<td>.18</td>
<td>.70</td>
<td>−.18</td>
<td>−.12</td>
<td>.08</td>
<td>.18</td>
</tr>
<tr>
<td>25</td>
<td>Participating in professional development activities to meet personal goals.</td>
<td>.04</td>
<td>.79</td>
<td>.03</td>
<td>−.13</td>
<td>&lt;.001</td>
<td>.04</td>
</tr>
<tr>
<td>26</td>
<td>Demonstrating improvement of clinical teaching performance based on self-reflection, experience and professional development.</td>
<td>.17</td>
<td>.67</td>
<td>.06</td>
<td>.03</td>
<td>−.10</td>
<td>.17</td>
</tr>
<tr>
<td>27</td>
<td>Balancing academic commitments (clinical teaching, classroom teaching, scholarship and service).</td>
<td>.10</td>
<td>.20</td>
<td>.15</td>
<td>.50</td>
<td>−.05</td>
<td>.10</td>
</tr>
<tr>
<td>28</td>
<td>Serving as a mentor to students, new clinical educators and/or nurses in clinical settings.</td>
<td>−.15</td>
<td>.24</td>
<td>.23</td>
<td>.64</td>
<td>−.05</td>
<td>−.15</td>
</tr>
<tr>
<td>29</td>
<td>Using teaching content/strategies passed down from a peer or a mentor.</td>
<td>−.12</td>
<td>.59</td>
<td>.12</td>
<td>.23</td>
<td>.10</td>
<td>−.12</td>
</tr>
<tr>
<td>30</td>
<td>Using available clinical teaching knowledge to plan clinical teaching/learning activities.</td>
<td>.06</td>
<td>.26</td>
<td>.37</td>
<td>.25</td>
<td>.06</td>
<td>.06</td>
</tr>
<tr>
<td>31</td>
<td>Participating as a team member in scholarly activities and demonstrate effective proposal writing.</td>
<td>.02</td>
<td>−.13</td>
<td>.80</td>
<td>&lt;.001</td>
<td>.21</td>
<td>.02</td>
</tr>
<tr>
<td>32</td>
<td>Attempting to participate in research conduct.</td>
<td>−.35</td>
<td>.04</td>
<td>.77</td>
<td>.15</td>
<td>.12</td>
<td>−.35</td>
</tr>
<tr>
<td>33</td>
<td>Disseminating information to enhance clinical teaching skills in nursing education.</td>
<td>−.01</td>
<td>.21</td>
<td>.57</td>
<td>.11</td>
<td>.06</td>
<td>−.01</td>
</tr>
<tr>
<td>34</td>
<td>Determining your own professional goals.</td>
<td>−.23</td>
<td>.80</td>
<td>.02</td>
<td>.05</td>
<td>.12</td>
<td>−.23</td>
</tr>
<tr>
<td>35</td>
<td>Identifying social, economic, political and institutional forces that influence higher education.</td>
<td>.06</td>
<td>.51</td>
<td>.39</td>
<td>−.10</td>
<td>.03</td>
<td>.06</td>
</tr>
<tr>
<td>36</td>
<td>Developing networks, collaborations and partnerships to enhance nursing’s influence within academia and clinical settings.</td>
<td>.33</td>
<td>.04</td>
<td>.63</td>
<td>−.14</td>
<td>.03</td>
<td>.33</td>
</tr>
<tr>
<td>37</td>
<td>Building organisational climate using respect, collegiality, professionalism and caring.</td>
<td>−.03</td>
<td>.57</td>
<td>.08</td>
<td>.19</td>
<td>.05</td>
<td>−.03</td>
</tr>
<tr>
<td>38</td>
<td>Advocating for nursing in the political arena.</td>
<td>.39</td>
<td>.45</td>
<td>.31</td>
<td>−.17</td>
<td>−.25</td>
<td>.39</td>
</tr>
</tbody>
</table>

**Note:** Factor loadings > .40 are in boldface. Extraction method: principal axis factoring. Rotation method: promax with Kaiser normalisation
<table>
<thead>
<tr>
<th>Item number</th>
<th>Factor loadings &gt; .40 are in boldface. Extraction method: principal axis factoring. Rotation method: promax with Kaiser normalisation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
<td>Designing new teaching strategies to improve clinical nursing education.</td>
</tr>
<tr>
<td>10</td>
<td>Designing learning opportunities to facilitate student socialisation to clinical settings.</td>
</tr>
<tr>
<td>14</td>
<td>Using assessment and evaluation data to enhance the clinical teaching-learning process.</td>
</tr>
<tr>
<td>5</td>
<td>Developing innovative strategies for student success.</td>
</tr>
<tr>
<td>4</td>
<td>Developing a plan to assist individual students with difficulty in clinical learning.</td>
</tr>
<tr>
<td>20</td>
<td>Identifying your own leadership style in clinical environment.</td>
</tr>
<tr>
<td>21</td>
<td>Understanding how your personal style may be used effectively to promote changes in educational settings.</td>
</tr>
<tr>
<td>28</td>
<td>Serving as a mentor to students, new clinical educators and/or nurses in clinical settings.</td>
</tr>
<tr>
<td>22</td>
<td>Functioning as a leader in your institution.</td>
</tr>
<tr>
<td>27</td>
<td>Balancing academic commitments (clinical teaching, classroom teaching, scholarship and service).</td>
</tr>
<tr>
<td>16</td>
<td>Understanding different curricular clinical components.</td>
</tr>
<tr>
<td>15</td>
<td>Understanding overall curriculum design and clinical placement design.</td>
</tr>
<tr>
<td>3</td>
<td>Understanding how placement content meets curriculum objectives.</td>
</tr>
<tr>
<td>1</td>
<td>Identifying essential clinical teaching content that meets placement objectives.</td>
</tr>
<tr>
<td>32</td>
<td>Participating in research conduct in the area of expertise.</td>
</tr>
<tr>
<td>31</td>
<td>Participating as a team member in scholarly activities and demonstrate effective proposal writing.</td>
</tr>
<tr>
<td>33</td>
<td>Disseminating information to enhance clinical teaching skills in nursing education.</td>
</tr>
<tr>
<td>36</td>
<td>Developing networks, collaborations, and partnerships to enhance nursing’s influence within academia and clinical settings.</td>
</tr>
<tr>
<td>25</td>
<td>Participating in professional development activities to meet personal goals.</td>
</tr>
<tr>
<td>24</td>
<td>Identifying personal professional development needs.</td>
</tr>
<tr>
<td>26</td>
<td>Demonstrating improvement of clinical teaching performance based on self-reflection, experience and professional development.</td>
</tr>
<tr>
<td>Item number</td>
<td>Item labels</td>
</tr>
<tr>
<td>------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Designing new teaching strategies to improve clinical nursing education. ...</td>
</tr>
<tr>
<td>10</td>
<td>Designing learning opportunities to facilitate student socialisation to clinical settings. ...</td>
</tr>
<tr>
<td>14</td>
<td>Using assessment and evaluation data to enhance the clinical teaching-learning process ...</td>
</tr>
<tr>
<td>5</td>
<td>Developing innovative strategies for student success. ...</td>
</tr>
<tr>
<td>4</td>
<td>Developing a plan to assist individual students with difficulty in clinical learning. ...</td>
</tr>
<tr>
<td>20</td>
<td>Identifying your own leadership style in clinical environment. ...</td>
</tr>
<tr>
<td>21</td>
<td>Understanding how your personal style may be used effectively to promote changes in educational settings. ...</td>
</tr>
<tr>
<td>28</td>
<td>Serving as a mentor to students, new clinical educators and/or nurses in clinical settings. ...</td>
</tr>
<tr>
<td>22</td>
<td>Functioning as a leader in your institution. ...</td>
</tr>
<tr>
<td>27</td>
<td>Balancing academic commitments (clinical teaching, classroom teaching, scholarship and service).</td>
</tr>
<tr>
<td>16</td>
<td>Understanding different curricular clinical components. ...</td>
</tr>
<tr>
<td>15</td>
<td>Understanding overall curriculum design and clinical placement design. ...</td>
</tr>
<tr>
<td>3</td>
<td>Understanding how placement content meets curriculum objectives. ...</td>
</tr>
<tr>
<td>1</td>
<td>Identifying essential clinical teaching content that meets placement objectives. ...</td>
</tr>
<tr>
<td>32</td>
<td>Participating in research conduct in the area of expertise. ...</td>
</tr>
<tr>
<td>31</td>
<td>Participating as a team member in scholarly activities and demonstrate effective proposal writing. ...</td>
</tr>
<tr>
<td>33</td>
<td>Disseminating information to enhance clinical teaching skills in nursing education. ...</td>
</tr>
<tr>
<td>36</td>
<td>Developing networks, collaborations, and partnerships to enhance nursing’s influence within academia and clinical settings. ...</td>
</tr>
<tr>
<td>25</td>
<td>Participating in professional development activities to meet personal goals. ...</td>
</tr>
<tr>
<td>24</td>
<td>Identifying personal professional development needs. ...</td>
</tr>
<tr>
<td>26</td>
<td>Demonstrating improvement of clinical teaching performance based on self-reflection, experience and professional development. ...</td>
</tr>
</tbody>
</table>
4.2.2.5. Stage 5 – Interpreting factors and respecifying factorial model

As suggested by Hair et al. (2010) and Munro (2005), items with loadings of less than .4 and cross-loadings (items that loaded on more than one factor) were removed one at a time. As a result of model respecification, a pattern matrix of 21 items grouped under five factors was extracted (Table 5).

4.2.2.5.1. Establishing construct validity

All the loadings exceeding .50 represent a practical model with high item–factor correlation and so it can be considered a proper model for further use. The correlations between the five extracted factors were greater than .4 and less than .7 (Table 6). This demonstrates the correlation and, at the same time, the difference of each factor in measuring each subscale of the CNESAA. In other words, the high and clean item loadings (Table 5) and the factor correlation matrix show the convergent and discriminant validity of the 21-item model.

<table>
<thead>
<tr>
<th>Factor</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.00</td>
<td>.45</td>
<td>.57</td>
<td>.64</td>
<td>.56</td>
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<td>2</td>
<td>.45</td>
<td>1.00</td>
<td>.48</td>
<td>.57</td>
<td>.45</td>
</tr>
<tr>
<td>3</td>
<td>.57</td>
<td>.48</td>
<td>1.00</td>
<td>.59</td>
<td>.57</td>
</tr>
<tr>
<td>4</td>
<td>.64</td>
<td>.57</td>
<td>.59</td>
<td>1.00</td>
<td>.64</td>
</tr>
<tr>
<td>5</td>
<td>.66</td>
<td>.45</td>
<td>.57</td>
<td>.64</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Note: Extraction method: principal axis factoring.
Rotation method: promax with Kaiser normalisation

4.2.2.5.2. Factor labelling

Consideration of the statistical evidence and content relevance were taken into account in the factor labelling. The item with the highest loading from every factor became the guiding item in labelling the factor, which later formed a subscale of the CNESAA.
Items were reordered to assist the sensible flow of meaning. Three additional items with small factor loadings reflected important and relevant meanings in relation to the activities of nurse educators in clinical settings and were therefore added into the scale. The third version of CNESAA thus comprised 24 items.

4.2.2.6. Stage 6 – Validation of factor analysis

The stability of the factor structure was assessed to validate the above factor analysis through an internal replication technique. Every step previously completed was replicated in two separate subsets of the data \((n_1 = 69, n_2 = 74)\) that were randomly split from the original pilot sample \((N = 104)\). Seventy-six percent (76%, 16 items) of the factor structure from sub-dataset one \((n_1 = 69)\) and 85% (18 items) of sub-dataset two \((n_2 = 74)\) resembled the pattern matrix (Table 5) extracted from the full pilot sample \((N = 104)\). Moreover, the three further items which were additionally added in the labelling process (CNESAA version 3) also existed in the remaining pattern of the two sub-datasets. Through these resemblances, the factor analysis was validated. The new set of items (CNESAA version 3) was thus also demonstrated to be a potential scale to measure the perceived confidence of CNEs in clinical settings.

Cronbach’s alpha was calculated to examine the internal consistency of the CNESAA instrument both before and after the factor analysis. Prior to the analysis, alpha coefficients varied from .83 to .90 for the eight subscales in the CNESAA version 1. After the analysis and respecification, Cronbach alpha values remained high, .83 to .92 for the five subscales and .95 for the overall scale of the CNESAA version 3 (Table 7). All the item-to-total correlations exceeded .50. Inter-item correlations were greater than .30. These values demonstrate the high reliability and consistency of the CNESAA instrument.
Table 7. Reliability of the third version of the CNESAA (24 items).

<table>
<thead>
<tr>
<th>Item number(*)</th>
<th>Subscale*</th>
<th>Corrected Item-total correlation</th>
<th>Cronbach’s alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. Enhancing student learning*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Designing new teaching strategies to improve clinical nursing education.</td>
<td>.83</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Designing learning opportunities to facilitate student socialisation to clinical settings.</td>
<td>.87</td>
<td></td>
</tr>
<tr>
<td>5 (revised)</td>
<td>Selecting appropriate teaching strategies to facilitate effective student learning.</td>
<td>.73</td>
<td>.92</td>
</tr>
<tr>
<td>4 (revised)</td>
<td>Developing a plan to assist students who have clinical learning difficulties.</td>
<td>.67</td>
<td></td>
</tr>
<tr>
<td>12*</td>
<td>Selecting assessment strategies that are effective and appropriate to different clinical situations.</td>
<td>.68</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Using assessment and evaluation data to enhance the clinical teaching–learning process</td>
<td>.87</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Relating theory and practice</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Understanding the links between different clinical placements within the course curriculum.</td>
<td>.82</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Understanding overall curriculum design and clinical placement design.</td>
<td>.76</td>
<td>.88</td>
</tr>
<tr>
<td>3</td>
<td>Understanding how placement content meets curriculum objectives.</td>
<td>.71</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Identifying essential clinical teaching content that meets placement objectives.</td>
<td>.65</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Engaging in scholarship</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30*</td>
<td>Using evidence and clinical knowledge to plan clinical teaching–learning activities.</td>
<td>.69</td>
<td></td>
</tr>
<tr>
<td>31 (revised)</td>
<td>Participating in scholarly activities as a team member.</td>
<td>.81</td>
<td>.88</td>
</tr>
<tr>
<td>32 (revised)</td>
<td>Designing and implementing research in the area of expertise.</td>
<td>.70</td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>Disseminating information to enhance clinical teaching skills in nursing education.</td>
<td>.75</td>
<td></td>
</tr>
<tr>
<td>36 (revised)</td>
<td>Collaborating to influence development of nursing within academic and clinical settings.</td>
<td>.65</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Functioning as a leader</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Identifying your own leadership style in clinical environments as a CNE.</td>
<td>.69</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>Serving as a mentor to students, new clinical educators and/or nurses in clinical settings.</td>
<td>.76</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>Balancing academic commitments (clinical teaching, classroom teaching, scholarship and service).</td>
<td>.71</td>
<td>.88</td>
</tr>
<tr>
<td>37*</td>
<td>Building a climate of respect, collegiality, professionalism, courage and caring within your institution and clinical settings.</td>
<td>.64</td>
<td></td>
</tr>
<tr>
<td>21 (revised)</td>
<td>Promoting change in clinical nursing education.</td>
<td>.75</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. Participating in professional development</td>
<td></td>
<td>.83</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>-----------------------------------------------------------------</td>
<td>---</td>
</tr>
<tr>
<td>25</td>
<td>Participating in professional development activities to meet personal goals.</td>
<td>.76</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Identifying personal professional development needs.</td>
<td>.68</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>Demonstrating improvement of clinical teaching performance based on self-reflection, experience and professional development.</td>
<td>.64</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total scale</strong></td>
<td>.95</td>
<td></td>
</tr>
</tbody>
</table>

*Note:* "*: Low-loading items re-added, †: The subscales (factors) and the items within subscales were reordered to facilitate the flow of meaning.

‡: This subscale includes another newly added item: “Providing timely and constructive feedback to students in clinical settings.”
4.2.2.7. Stage 7 – Scale modification for further use

Apart from item reduction, further modifications were made to enhance the quality of the CNESAA scale. Firstly, with the five answer options of the CNESAA version 1 (1 – low confidence, 2 – moderately low confidence, 3 – moderate confidence, 4 – moderately high confidence and 5 – high confidence), the responses concentrated into categories 3 (27.7%) and 4 (43.3%). The frequency of answers condensed into categories 3 and 4 suggesting that the spreading of the categories would help to further explore nurse educator perceptions of their own confidence in clinical teaching. An additional step was undertaken to obtain general feedback about the surveys from the managers of three institutions (through email and telephone) and participants from two institutions (emails were sent to the email list of CNEs). In general, comments were positive; however, confusion between label interpretation and the wording of several items was reported. Consultation with experts in biostatistics, psychometrics and nursing education was subsequently sought. Consequently, the format of the scale was shifted from a five-point Likert scale to a ten-point numerical scale, labelled at the two ends (0 – not confident at all to 9 – extremely confident). All 24 items were further revised and minor rewording took place where necessary to clarify the sentences. The product of the EFA and the modification process was the 24-item CNESAA (version 4, Table 8).

As mentioned in Chapter Three, the CNESAA instrument was reviewed prior to commencing factor analysis by a panel of experts. Following the EFA and scale modification, the CNESAA version 4 was translated and back-translated by a bilingual nurse educator. Both Vietnamese and English versions of the CNESAA version 4 were reviewed again for relevance, clarity, sufficiency and appropriateness of every item in
relation to its subscale, as well as the overall scale. As the CNESAA version 4 was confirmed by the expert panel, content validity was established.

Table 8. The CNESAA version 4 (24 items).

<table>
<thead>
<tr>
<th>CLINICAL NURSE EDUCATOR SKILL ACQUISITION ASSESSMENT TOOL 3</th>
<th>Please circle one number as illustrated below to rate your level of confidence.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Not confident at all  
0 1 2 3 4 5 6 7 8 9  
Extremely confident |

Please rate how confident are you in:

<table>
<thead>
<tr>
<th>ENHANCING STUDENT LEARNING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  Designing new teaching strategies to improve quality of clinical education.</td>
</tr>
<tr>
<td>2  Designing learning opportunities to facilitate student socialization to clinical setting.</td>
</tr>
<tr>
<td>3  Selecting appropriate teaching strategies to facilitate effective student leaning.</td>
</tr>
<tr>
<td>4  Developing a plan to assist students who have clinical learning difficulties.</td>
</tr>
<tr>
<td>5  Selecting assessment strategies that are effective and appropriate to different clinical situations.</td>
</tr>
<tr>
<td>6  Providing timely and constructive feedback to students in clinical settings.</td>
</tr>
<tr>
<td>7  Using assessment and evaluation data to enhance the clinical teaching-learning process.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RELATING THEORY AND PRACTICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>8  Understanding the links between different clinical placements within the course curriculum.</td>
</tr>
<tr>
<td>9  Understanding overall curriculum design and clinical placement design.</td>
</tr>
<tr>
<td>10 Understanding how clinical placement objectives meet curriculum objectives.</td>
</tr>
<tr>
<td>11 Identifying teaching opportunities that meet clinical placement objectives.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ENGAGING IN SCHOLARSHIP</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 Using evidence and clinical knowledge to plan clinical teaching/learning activities.</td>
</tr>
</tbody>
</table>

3 This tool is copyright © of the authors. Permission to use or reproduce this tool should be sought from the principal investigator.
<table>
<thead>
<tr>
<th></th>
<th>Functioning as a Leader</th>
<th></th>
<th>Participating in professional development</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>Participating in scholarly activities as a team member</td>
<td>0 1 2 3 4 5 6 7 8 9</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Designing and implementing research in the area of expertise.</td>
<td>0 1 2 3 4 5 6 7 8 9</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Disseminating new information about nursing practice and education to colleagues and students.</td>
<td>0 1 2 3 4 5 6 7 8 9</td>
<td></td>
</tr>
</tbody>
</table>

**FUNCTIONING AS A LEADER**

|   |                                                                 |   |                                                                                                           |
|---|-----------------------------------------------------------------|---|-----------------------------------------------------------------
| 16 | Collaborating to influence development of nursing within academic and clinical settings. | 0 1 2 3 4 5 6 7 8 9 |                                                                                                           |
| 17 | Identifying own leadership style as a CNE.                       | 0 1 2 3 4 5 6 7 8 9 |                                                                                                           |
| 18 | Serving as a mentor to students, new clinical educators and/or new nurses in clinical settings. | 0 1 2 3 4 5 6 7 8 9 |                                                                                                           |
| 19 | Balancing academic commitments (clinical teaching, classroom teaching, scholarship and clinical practice). | 0 1 2 3 4 5 6 7 8 9 |                                                                                                           |
| 20 | Building the climate of respect, collegiality, professionalism, courage and caring within your institution and clinical settings. | 0 1 2 3 4 5 6 7 8 9 |                                                                                                           |

**PARTICIPATING IN PROFESSIONAL DEVELOPMENT**

|   |                                                                 |   |                                                                                                           |
|---|-----------------------------------------------------------------|---|-----------------------------------------------------------------
| 21 | Promoting change in clinical nursing education.                 | 0 1 2 3 4 5 6 7 8 9 |                                                                                                           |
| 22 | Identifying your own professional development needs.            | 0 1 2 3 4 5 6 7 8 9 |                                                                                                           |
| 23 | Participating in professional development activities to meet your personal goals. | 0 1 2 3 4 5 6 7 8 9 |                                                                                                           |
| 24 | Demonstrating improvement of clinical teaching performance based on self-reflection, experience and long-life learning. | 0 1 2 3 4 5 6 7 8 9 |                                                                                                           |

**4.3. Phase Two – Instrument revalidation**

Data screening and cleaning were undertaken prior to the conduct of CFA. Of the 254 returned surveys, three unengaged surveys were omitted using the criterion of standard deviation less than 0.30. Minor missing data (less than 10%) relating to age, year of experience and background were assessed case by case and replaced by total mean score where appropriate. It was considered that missing values in the two open questions could be ignored and thus no action was taken. There were no missing data in Part B because this contained compulsory questions. Data normality of all items in part B was confirmed using histograms, normal probability plots, and Shapiro–Wilks and Kolmogorov–Smirnov tests.
4.3.1. Demographic results

Twelve institutions participated in this validation phase including ten colleges and two universities. One of these institutions was situated in the south, one in the centre and the remainder in the north of Vietnam. Of the 251 participants, 178 (70.9%) were female and 73 (29.1%) were male, with a mean age of 34 (SD = 8.3), ranging from 22 to 58 years. At the time of the survey, participants had on average 8.4 (SD = 7.3) years of experience in the role of CNE. The participation of physicians in nursing education was also evident in this study: 69.7% in nursing (n = 175), 29.5% in medicine (n = 74) and 0.8% in health-related sciences (n = 2). More than half of the participants (n = 134, 53.4%) held bachelor degrees in nursing, 29 (11.6%) had postgraduate qualifications in nursing and 88 (35%) had postgraduate qualifications in medicine or other health disciplines. Almost 40% of the participants (n = 100) had been recruited when they were new Bachelor of Nursing graduates without previous experience in practice as a nurse clinician (Table 9)\(^4\).

\(^4\) Discrepancies in the total numbers displayed under higher qualifications and background reflects the number of nurse educators with background in nursing or medicine who also had postgraduate qualifications in other health-related sciences.
Table 9. Demographic information – validation study.

<table>
<thead>
<tr>
<th>Gender</th>
<th></th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td></td>
<td>178</td>
<td>70.9</td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td>73</td>
<td>29</td>
</tr>
<tr>
<td>Age (mean)</td>
<td></td>
<td>34</td>
<td>(SD = 8.3)</td>
</tr>
<tr>
<td>Years of experience</td>
<td></td>
<td>8.4</td>
<td>(SD = 7.3)</td>
</tr>
<tr>
<td>Background</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nursing</td>
<td></td>
<td>175</td>
<td>69.7</td>
</tr>
<tr>
<td>Medicine</td>
<td></td>
<td>74</td>
<td>29.5</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td>2</td>
<td>0.8</td>
</tr>
<tr>
<td>Highest qualification</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bachelor of Nursing</td>
<td></td>
<td>134</td>
<td>53.4</td>
</tr>
<tr>
<td>Postgraduate in nursing</td>
<td></td>
<td>29</td>
<td>11.6</td>
</tr>
<tr>
<td>Medical doctor or postgraduate in health disciplines</td>
<td></td>
<td>88</td>
<td>35.1</td>
</tr>
<tr>
<td>Recruited as a new Bachelor of Nursing graduate*</td>
<td></td>
<td>100</td>
<td>39.8</td>
</tr>
</tbody>
</table>

*No previous practice or teaching experience

4.3.2. Confirmatory factor analysis

As identified in the methods chapter, the validation of the CNESAA was undertaken using multiple steps. In Phase One, the CNESAA instrument was validated using an internal replication technique of EFA on two subsets of the pilot data in order to examine the stability of the factorial model. In Phase Two, the validation continued by using a confirmatory technique on a separate sample. The four-step guideline of Hair et al. (2010) was used to guide the analysis and interpretation of the CFA results.

4.3.2.1. Stage 1 – Defining individual constructs

The hypothesis to be tested in Phase Two was:

*The factorial model of the CNESAA (version 4) with 24 items and five constructs (as the result of the EFA in Phase One) was fit in relation to the new sample collected in Phase Two.*

The content of the hypothesised model is presented in Table 8.
4.3.2.2. Stage 2 – Developing the overall measurement model

The overall measurement model is specified in Figure 6.

Figure 6. The overall measurement model.

Note: ESL: enhancing student learning; RTP: relating theory and practice; EIS: engaging in scholarship; FL: functioning as a leader; PPD: participating in professional development.
4.3.2.3. Stage 3 – Producing empirical results

The CFA was conducted in AMOS version 22.0 on the sample of 251. The model was specified with 58 free parameters to be estimated. Of the 58 parameters, 24 were factor loadings, 10 were factor covariances and 24 were error terms. The number of distinct variance and covariance terms was 300 \((24 \times 25)/2 = 300\). There were 242 degrees of freedom \((300 – 58 = 42)\). The model was identified, as the number of degrees of freedom is greater than the number of parameter estimates \((242 > 58)\). Model fitness was evaluated using Table 10 as a guideline (Hair et al., 2010; Hu & Bentler, 1999; Schreiber, Nora, Stage, Barlow, & King, 2006).

Table 10. Guidelines for confirmatory factor analysis indices.

<table>
<thead>
<tr>
<th>Metric</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-square/df (CMIN/df)</td>
<td>(0 &lt; 3)</td>
</tr>
<tr>
<td>p-value</td>
<td>(&gt; .05) (p-value can be significant even in case of perfect fit)</td>
</tr>
<tr>
<td>Comparative fit index (CFI)</td>
<td>(&gt; .90) (traditionally acceptable) and (&gt; .95) (perfect fit)</td>
</tr>
<tr>
<td>Goodness of Fit Index (GFI)</td>
<td>(&gt; .95)</td>
</tr>
<tr>
<td>Adjusted Goodness of Fit Index (AGFI)</td>
<td>(&gt; .80)</td>
</tr>
<tr>
<td>Root Mean Square Error of Approximation (RMSEA)</td>
<td>(&lt; .05) (good) and (.05 - .1) (moderate)</td>
</tr>
</tbody>
</table>

4.3.2.4. Stage 4 – Assessing measurement model validity

4.3.2.4.1. Overall fit

All the standard loadings were satisfactory. Of the 24 loadings, 23 were, ideally, greater than .7 and one item was below .7 (FL_4, loading = .66). A summary of the model fit is reported in Figure 7, with \(\chi^2 = 709.68\), df = 242, \(p < .001\). It is noted that the \(p\)-value can be significant even in the case of perfect fit (Hair et al., 2010; Lattin et al., 2003). Other indices were further considered. The index CMIN/df was less than 3 and the RMSEA was in the range of a moderate fit. However, the other indices (GFI, AGFI and CFI)
were under the threshold of .9 for a good fit. Modification was therefore required to improve the fitness of the measurement model.

4.3.2.4.2. *Modifying the measurement model*

Path estimates, standardised residuals and modification indices were checked to direct the adjustment of the model. All the standardised loadings were satisfactory, ranging from .66 to .88 (Figure 7). Three hundred standardised residuals as the output of CFA were further examined. Six residuals (listed in Table 11) exceed the value of |2.5|, but were still under the threshold of |4|. Five of the six items had loadings well above 0.7. Only item FL_4 had a loading of slightly less than .7 (.66) for the construct *Facilitate learning*. This issue was considered insubstantial and the item FL_4 thus remained in the model.

Table 11. Excessive standardised residuals.

<table>
<thead>
<tr>
<th>Excessive standardised residuals between two variables:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EIS_4 and PPD_3</td>
<td>2.91</td>
</tr>
<tr>
<td>RTP_4 and PPD_3</td>
<td>2.67</td>
</tr>
<tr>
<td>FL_4 and PPD_3</td>
<td>2.86</td>
</tr>
<tr>
<td>ESL_3 and PPD_3</td>
<td>2.82</td>
</tr>
<tr>
<td>ESL_6 and PPD_3</td>
<td>3.1</td>
</tr>
<tr>
<td>FL_4 and EIS_3</td>
<td>-2.85</td>
</tr>
</tbody>
</table>

Note: ESL: enhancing student learning; RTP: relating theory and practice; EIS: engaging in scholarship; FL: functioning as a leader; PPD: participating in professional development.
Figure 7. Visual graphic of the CFA (initial model).

Note: ESL: enhancing student learning; RTP: relating theory and practice; EIS: engaging in scholarship; FL: functioning as a leader; PPD: participating in professional development.

*Model fit summary: CMIN = 709.68, df = 242, CMIN/df = 2.93, CFI = .89, GFI = .81, AGFI = .76, RMSEA = .09, 90% CI [.08; .095], TLI = .88, PCLOSE < .001.

Modification indices were subsequently scrutinised. Modification indices between error terms within the same construct were large, indicating covariance errors.
Covariance paths were thus created between these error terms. The CFAs were repeated and examined until a trade-off of model and acceptable level of model fit indices were exhibited, as in the estimated model (Table 12, Figure 8). Comparison of model fit between the two models (Table 12) suggests that the modification of covariance paths significantly improved model fitness.

In terms of absolute fit measures for the estimated model, the normed Chi-square (CMIN/df) was less than 3 (2.36), illustrating a model with generally good fit. The GFI (.84) did not achieve the standard cut-off of .90, but the adjusted index AGFI was .80, which is close to the model fit standards. The incremental fit index CFI was 0.93, which is satisfactory for a good fit. The badness of fit index RMSEA of .07 shows an acceptable fitness. The range of the 90% confidence interval of the RMSEA was also lower compared to the initial model. Standardised loadings of all items were relatively high, with only two loadings less than .7 and the remainder well above .7 (Figure 8). The standardised residuals from the covariances indicate no violation from model assumptions. In short, although the GFI value did not meet the standard criteria, the use of multiple indices found the CMIN/df and CFI at satisfactory levels, and so the fitness of the estimated model is considered acceptable.
Table 12. Comparing model fit indices.

<table>
<thead>
<tr>
<th>Indices</th>
<th>Initial model*</th>
<th>Estimated model**</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMIN</td>
<td>709.68</td>
<td>550.05</td>
</tr>
<tr>
<td>df</td>
<td>242</td>
<td>233</td>
</tr>
<tr>
<td>CMIN/df</td>
<td>2.93 ( p &lt; 0.001 )</td>
<td>2.36 ( p &lt; 0.001 )</td>
</tr>
<tr>
<td>CFI</td>
<td>.89</td>
<td>.93</td>
</tr>
<tr>
<td>GFI</td>
<td>.81</td>
<td>.84</td>
</tr>
<tr>
<td>AGFI</td>
<td>.76</td>
<td>.80</td>
</tr>
<tr>
<td>RMSEA</td>
<td>.09</td>
<td>.07</td>
</tr>
<tr>
<td>90% confidence interval</td>
<td>[0.08; 0.09]</td>
<td>[0.66; 0.08]</td>
</tr>
<tr>
<td>PCLOSE</td>
<td>&lt;.001</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Akaike information criterion</td>
<td>825.68</td>
<td>684.05</td>
</tr>
<tr>
<td>Bayesian information criterion</td>
<td>1030.16</td>
<td>920.25</td>
</tr>
</tbody>
</table>

Note: (*) Initial model without covariance between error terms.
Figure 8. Visual graphic of the estimated model.

Note: ESL: enhancing student learning; RTP: relating theory and practice; EIS: engaging in scholarship; FL: functioning as a leader; PPD: participating in professional development. Model fit indices: CMIN/df = 2.36, CFI = .93, GFI = .84, AGFI = .80, RMSEA = .07, 90% CI [0.07; 0.08], PCLOSE < .001.
4.3.2.4.3. Assessing construct validity

Standardised factor loadings, average variance extraction (AVE), construct reliability (CR), maximum shared variance (MSV) and average shared squared variance (ASV) were used to establish construct validity for the estimated model (Figure 8).

Standardised factor loadings of all the items were substantially greater than .5, most above .7. Average variance extraction values for all five domains were above .5 (.56 -.67). Construct reliability values for all domains were also substantially greater than .7 (.80 -.90) (Table 13). These three qualities demonstrated reliability and convergent validity of the model. Discriminant validity, however, is low as AVE values were less than those for MSV and ASV (Table 13).

Table 13. Model validity.

<table>
<thead>
<tr>
<th>Domain</th>
<th>CR</th>
<th>AVE</th>
<th>MSV</th>
<th>ASV</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Enhancing student learning</td>
<td>.90</td>
<td>.57</td>
<td>.80</td>
<td>.70</td>
</tr>
<tr>
<td>2. Relating theory and practice</td>
<td>.89</td>
<td>.67</td>
<td>.81</td>
<td>.70</td>
</tr>
<tr>
<td>3. Engaging in scholarship</td>
<td>.88</td>
<td>.59</td>
<td>.77</td>
<td>.64</td>
</tr>
<tr>
<td>4. Functioning as a leader</td>
<td>.86</td>
<td>.56</td>
<td>.81</td>
<td>.77</td>
</tr>
<tr>
<td>5. Participating in professional development</td>
<td>.80</td>
<td>.58</td>
<td>.78</td>
<td>.61</td>
</tr>
</tbody>
</table>

Note: CR: construct reliability; AVE: average variance extraction; MSV: maximum shared variance; ASV: average shared squared variance.

Although the model was only concluded to have an acceptable level of fitness, rather than a perfect fit as compared to the standard for the GFI index at .90 (Kline, 2005), respecification of the model was not sought in order to achieve a higher level of fitness for three reasons. First, the primary aim of the CFA was to test the appropriateness of the hypothesised model developed in Phase One on an independent sample, and not to seek a perfect model fit. Second, as the CFA was carried out based on
the results of a rigorous process of EFA (Phase One) and the model has a strong theoretical foundation, modifications merely based on empirical CFA outputs are advised to be avoided (Hair et al., 2010). Third, close examination of the standardised residual covariance matrix for the final model did not suggest any additional modification. Moreover, in taking Kline’s (2005, p. 206) and Hair et al.’s (2006, p. 795) recommendations into consideration, the model was further evaluated for its theoretical integrity regarding relevance, clarity, sufficiency and appropriateness of every item and every subscale to the overall model. This evaluation indicated that no further modification was required.

As the result of this confirmatory process, the initial structure of the hypothesised model of the 24-item CNESAA was confirmed. The reliability and convergent validity of the instrument were also reconfirmed with high values for the CR (.80 - .90), high standard loadings of all items on their factors (.66 - .80) and AVE values greater than .5 (.55 – .67). In other words, the whole process of factor analysis was confirmed and the CNESAA was fully validated.

Every step of the instrument development and validation to control bias and confounding was again scrutinised and evaluated. First, the rigorous steps in the development and validation of the CNESAA were conducted in adherence to Hair et al.’s (2010) guideline. Second, every decision made to improve the instrument in Phases One and Two was informed by the extraction of statistical results, consideration of content coherence and appropriateness, consultation with experts in nursing education and psychometric measurement, and inclusion of participant perspectives. Third, the survey was of appropriate length (it took approximately 20 minutes to complete) as suggested by Liamputtong (2013) so as not to cause mental fatigue to participants.
Fourth, a briefing section for participants, an instruction page and instruction for each question were used to assist participants in completing the surveys. Champions were carefully trained to help clarify any confusion regarding the CNESAA’s content for participants at every research site. Fifth, the survey data were collected through both web-based and paper-based modes to increase coverage and response rates. Therefore, any possible measurement errors causing common method bias related to methods, instruments and item characteristics were minimised from the very beginning of the study through procedural remedies.

However, issues related to participants’ moods and social desirability might have been only minimised, rather than completely avoided in this study. This issue has also been acknowledged as an inherent subjectivity in any social research (Ann, 2014). Given that there is no existing gold standard in measuring CNEs’ perceived confidence in clinical teaching and that the CNESAA was validated from the strong foundation of the EFA using rigorous procedures, it is proved that the CNESAA is of high quality for future use.

4.4. Summary

The procedures in the process to develop, pilot, modify and validate the CNESAA have been fully described in this chapter. The result of the EFA in Phase One resulted in the fourth version of the CNESAA with 24 items and five subscales. This structural model of the CNESAA was tested and confirmed without modification in Phase Two through the CFA approach. A six-step analysis guided by Hair et al. (2010) was thus accomplished. Content and convergent validity, as well as the internal reliability of the instrument, were established. The CNESAA was thus proven as a reliable and valid instrument to measure the perceived confidence of CNEs in Vietnam. The CNESAA
was subsequently administered in Phase Three to explore aspects of clinical nursing education in Vietnam. The results of Phase Three are presented in the next chapter.
Chapter Five: The Administration of the CNESAA

5.1. Introduction

In the previous chapter, the process of development and validation of the CNESAA instrument has been reported. In Phase Three, the validated instrument was administered in educational institutions in Vietnam. The aim of this phase was to measure CNEs’ levels of perceived confidence and to explore its association with a number of variables such as highest qualification and preparation for the role. The results of the process are presented through answering the research questions proposed in Chapter Two. Demographic data are also reported.

5.2. Demographic and background information

Nineteen institutions from different cities and provinces in Vietnam participated in Phase Three of the study. Of the 334 participants, 72.2% (n = 241) were female and 27.8% (n = 93) were male. The participants had a mean age of 33 years and had on average 7.6 years of experience in the role of CNE. Generally their average previous experience in clinical teaching, classroom teaching and practical experience in the role as a nurse clinician was 1.37, 1.38 and 2.03 years respectively.

A large majority of the participants (n = 246, 73.7%) were trained as nurses before becoming CNEs. However, there was a substantial percentage (n = 87, 26.4%) of participants coming from various health-related areas, in particular, 24.3% (n = 81) from medicine and 2.1% (n = 6) from other health-related disciplines (biology, traditional medicine, public health and physiotherapy). Of those with backgrounds in nursing, 77.2% (n = 190) had undergraduate degrees in nursing, 15.8% (n = 39) had postgraduate
degrees in nursing and 6.9% \((n = 17)\) had postgraduate degrees in health sciences. These results are summarised in Table 14\(^5\).

<table>
<thead>
<tr>
<th>Table 14. Demographic characteristics of the participants in Phase Three.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
</tr>
<tr>
<td>--------</td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Age (mean)</td>
</tr>
<tr>
<td>Years of experience</td>
</tr>
<tr>
<td>Background</td>
</tr>
<tr>
<td>Nursing</td>
</tr>
<tr>
<td>Medicine</td>
</tr>
<tr>
<td>Other</td>
</tr>
<tr>
<td>Highest qualification</td>
</tr>
<tr>
<td>Bachelor of Nursing</td>
</tr>
<tr>
<td>Master of Nursing</td>
</tr>
<tr>
<td>Doctor of Nursing</td>
</tr>
<tr>
<td>Postgraduate in health-related discipline</td>
</tr>
<tr>
<td>Medical doctor</td>
</tr>
<tr>
<td>Recruited as a new Bachelor of Nursing graduate*</td>
</tr>
</tbody>
</table>

\(N = 334\). *No previous practice or teaching experience

5.3. What are the models of recruitment of CNEs in Vietnam?

Clinical nurse educators were recruited from diverse educational and practice backgrounds. Three recruitment models were identified: (1) those who were new Bachelor of Nursing graduates \((n = 122, 36.5\%)\); (2) those who had backgrounds in nursing with previous experience in either nursing practice or teaching \((n = 124, 37.1\%)\); and (3) those who did not have backgrounds in nursing \((n = 88, 26.4\%)\) (Figure 9).

Participants in the first group had been recruited immediately on graduation from their

\(^5\) Discrepancies in the total numbers displayed under higher qualifications and background reflects the number of nurse educators with background in nursing or medicine who also had postgraduate qualifications in other health-related sciences.
undergraduate nursing programs without experience in practice as nurse clinicians. In the second group, the average experience of the participants was 1.09, 1.16 and 3.79 years for classroom teaching, clinical teaching and practice respectively, with a range from 1 month to 29 years (Figure 10). Within the third group, the majority were from medicine ($n = 81, 24.3\%$) and a minority ($n = 7, 2.1\%$) from other health-related disciplines, including biology, traditional medicine, public health and physiotherapy.

Figure 9. CNE recruitment sources.

Figure 10. Average years of experience prior to recruitment of participants in the experienced group.
5.4. How are CNEs prepared for their role in Vietnam?

Given the problems with role transition experienced by many CNEs as discussed in Chapter Two, it is important to understand how Vietnamese CNEs were prepared for their role. Eight common institutional preparation methods used throughout Vietnam were identified and explained as follows.

i. Pedagogical courses: these typically included two packages: fundamental and advanced, or theoretical teaching and practice teaching.

ii. Teaching in nursing simulation laboratories: this took place either prior to or concurrently with the clinical teaching period (teaching in a clinical environment in the morning and teaching in a simulation laboratory in the afternoon).

iii. Workshops in clinical nursing education: these included multiple sessions run by experts in nursing practice and nursing education.

iv. Practice (as a nurse clinician) prior to clinical teaching: this was compulsory and varied in duration depending on each institution.

v. Simultaneous practice and clinical teaching: the CNE was assigned to work in the hospital as a clinician and, at the same time, responsible for teaching nursing students in that hospital ward. This preparation program applied in the early stage of the transition and varied from several months to two years.

vi. Informal mentorship: a senior CNE was informally assigned to assist the new CNE.

vii. Guidelines: documents were provided by the nursing department prior to each clinical placement. These guidelines included information about the students, their academic levels, learning objectives and general requirements for assessing students in the clinical environment.
viii. Micro-teaching: these were activities whereby a new CNE would conduct a teaching session and senior CNEs would provide feedback and recommendations for improvement. Teaching sessions about clinical situations often occurred in a classroom setting or a simulation laboratory.

On average, every CNE had received three to four preparation programs from their institution. The three most frequent methods used to prepare CNEs for their role were pedagogical courses ($n = 254, 76\%$), workshops in clinical nursing education ($n = 190, 56.9\%$) and teaching in simulation laboratories prior to clinical teaching ($n = 155, 46.4\%$). Five other common methods included micro-teaching with feedback from seniors CNEs prior to first clinical teaching experience ($n = 144, 43.1\%$), being mentored by a senior CNE ($n = 130, 38.9\%$), simultaneous practice and teaching in clinical settings in the early stage of transitions ($n = 120, 35.9\%$), practice before teaching ($n = 114, 34.1\%$) and guidelines ($n = 76, 22.8\%$). These are illustrated in Figure 11.
There were differences between the commonly used institutional preparation methods and those that the participants self-rated as effective. The most common methods were not those considered effective by the participants. Pedagogical courses and workshops in clinical nursing education were considered to be effective by only 55 (17.6%) and 62 participants (19.7%) respectively. The third most common preparation – teaching in stimulation laboratories – was perceived as helpful by only 21 participants (6.3%). The methods that most influenced confidence development for the participants were: consultation with senior CNEs, staff nurses or nurse managers ($n = 147, 46\%$); remaining active in practice ($n = 157, 47\%$); self-learning or on-the-job learning (observing staff nurse practice, preparing teaching materials prior to teaching and learning from their own experience) ($n = 116, 36.6\%$) (Figure 12).
Figure 12. Percentages of effective preparation methods perceived by participants.

Note: The bars in dark blue indicate the most frequently applied methods.

5.5. What level of perceived confidence do CNEs have in their ability to undertake their role?

The perceived confidence variable, which ranges from 0 to 216 (24 items rated on a 10-point scale from 0 to 9), was converted to a system utility scale with a more translational range from 0 to 100 using the formula: normalised perceived confidence = (perceived confidence x 100)/216. This type of data transformation did not change the data distribution nor the relationships between perceived confidence of the participants and other factors.

Descriptive analysis was undertaken to examine CNEs’ perceived confidence by percentiles. As shown in Figure 13, the bottom 10th percentile of the participants perceived their level of confidence as below 51 and the top 10th percentile of the participants perceived themselves as having very high levels of confidence over 87. This distribution of perceived confidence provided the researcher with a lens to make sense of participants’ perceived confidence. The scale was thus interpreted as:

- \( \leq 51 \): very low confidence
- 51.01–63: low confidence
- 63.01–75: moderate confidence
- 75.01–87: high confidence
- 87.01–100: very high confidence.

Figure 13. The distribution of CNEs’ perceived confidence by percentile.

Using this approach to interpretation, it can be seen that the majority of participants perceived themselves as having moderate and high levels of confidence in their CNE role (Figure 14). In particular, 26.9% of participants ($n = 90$) rated themselves as moderately confident and 38% ($n = 127$) as highly confident. The participants at very low, low and very high levels of perceived confidence account for 9% ($n = 30$), 15.9% ($n = 53$) and 10.2% ($n = 34$) respectively. A similar pattern of the highest percentages in the high perceived confidence category was shared among participants from different backgrounds and recruitment methods (Figures 14 and 15).
5.6. Do CNEs develop their perceived confidence over time?

Bivariate correlation was used to explore the association between the number of years of experience in clinical teaching and perceived confidence level. The extracted scatter plot shows a potential linear relationship between these two continuous variables (Figure 16). From the scatter plot, the extent of the linear relationship appears to vary at different stages of experience in clinical teaching. Pearson’s and Spearman’s tests demonstrate a small yet significant linear relationship between overall experience and perceived confidence.
confidence with \( p < .001 \) (coefficient < .3). The relationship was also significant for those who had from 5 to 20 years of experience. The association, however, was insignificant for those who had less than 5 years or more than 20 years in clinical teaching. The effect of shorter periods of clinical teaching experience (less than 1 year, from 1 to less than 2 years, from 2 to less than 3 years, from 3 to less than 5 years, from 5 to 10 years, from 10 to 15 years and from 15 to 20 years) on perceived confidence was also examined and found to be insignificant (Table 15).

![Figure 16. Linear relationship between years of experience and perceived confidence.](image)

**Table 15.** Correlation between years of experience and perceived confidence.

<table>
<thead>
<tr>
<th>Clinical teaching experience</th>
<th>Overall experience</th>
<th>&lt; 1 year</th>
<th>1–2 years</th>
<th>2–3 years</th>
<th>3–5 years</th>
<th>≥ 5 years</th>
<th>5–20 years</th>
<th>&lt; 20 years</th>
<th>≥ 20 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spearman's Coefficient</td>
<td>( p &lt; .001^* )</td>
<td>.03</td>
<td>-.02</td>
<td>.15</td>
<td>.09</td>
<td>.19</td>
<td>.19</td>
<td>.28</td>
<td>-.16</td>
</tr>
<tr>
<td></td>
<td>( p = .95 )</td>
<td>( p = .94 )</td>
<td>( p = .29 )</td>
<td>( p = .45 )</td>
<td>( p = .01^* )</td>
<td>( p = .02^* )</td>
<td>( p &lt; .001^* )</td>
<td>( p = .43 )</td>
<td></td>
</tr>
<tr>
<td>Pearson's Coefficient</td>
<td>( p &lt; .001^* )</td>
<td>.1</td>
<td>.002</td>
<td>.13</td>
<td>.11</td>
<td>.14</td>
<td>.16</td>
<td>.25</td>
<td>-.09</td>
</tr>
<tr>
<td></td>
<td>( p = .82 )</td>
<td>( p = .99 )</td>
<td>( p = .38 )</td>
<td>( p = .39 )</td>
<td>( p = .06 )</td>
<td>( p = .049^* )</td>
<td>( p &lt; .001^* )</td>
<td>( p = .65 )</td>
<td></td>
</tr>
</tbody>
</table>

\( N = 334 \)

Note: Results of two-tailed correlation. \(^* p < .001\).
Simple linear regression was further undertaken to more rigorously examine the association between experience and level of perceived confidence in three steps: estimating regression equation, testing the model’s significance, examining model assumptions and concluding model prediction. In the first step, from Figure 16 and the descriptive output of simple linear regression below (Table 16), the regression equation is expressed as follows:

Perceived confidence = 68.07 + (0.46 x years of experience in clinical teaching).

In this equation, perceived confidence is the dependent variable and years of experience in clinical teaching is the independent variable. With every year of experience increase, the CNE’s perceived confidence changed by 0.46 point. The model is significant with $F(1, 332) = 19.37, p < .001, 95\% \text{ CI} [0.26, 0.67]$.

Table 16. Simple linear regression output.

<table>
<thead>
<tr>
<th>ANOVA</th>
<th>Sum of squares</th>
<th>df</th>
<th>Mean square</th>
<th>F</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>3343.63</td>
<td>1</td>
<td>3343.63</td>
<td>19.37</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Residual</td>
<td>57296.25</td>
<td>332</td>
<td>172.58</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>60639.88</td>
<td>333</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Coefficient</th>
<th>Unstandardised coefficients</th>
<th>Standardised coefficients</th>
<th>t</th>
<th>p-value</th>
<th>95.0% CI for B</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>68.07</td>
<td>.10</td>
<td>63.23</td>
<td>&lt; .001</td>
<td>65.95 - 70.19</td>
</tr>
<tr>
<td>Years of experience</td>
<td>0.46</td>
<td>.11</td>
<td>0.24</td>
<td>4.40</td>
<td>&lt; .001</td>
</tr>
</tbody>
</table>

Note: Independent variable (predictor): years of experience; dependent variable: perceived confidence level; SE: standardised error; df: degree of freedom; LL: lower limit; UP: upper limit.

Three assumptions for the regression model were examined: (1) the dependent and independent variables are linearly related to each other; (2) all values of the dependent variable (perceived confidence) are serially independent from one another; (3) the residuals’ distribution is lightly skewed but not a violation of the model...
assumption due to the large sample size. The residual analysis is illustrated in Table 17 and Figure 17.

Table 17. Residual statistics.

<table>
<thead>
<tr>
<th></th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predicted value</td>
<td>68.07</td>
<td>82.93</td>
<td>71.59</td>
<td>3.17</td>
</tr>
<tr>
<td>Residual</td>
<td>-42.63</td>
<td>23.58</td>
<td>&lt; .001</td>
<td>13.12</td>
</tr>
<tr>
<td>Standardised predicted value</td>
<td>-1.11</td>
<td>3.58</td>
<td>&lt; .001</td>
<td>1.00</td>
</tr>
<tr>
<td>Standardised residual</td>
<td>-3.25</td>
<td>1.80</td>
<td>&lt; .001</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Figure 17. Histogram, p-plot and scatter plot illustrating residual analysis.
To conclude, there is a significant association between years of experience in clinical teaching and perceived confidence in clinical teaching competence among the participants. Other models that combine experience with other factors such as background and role preparation might better explain the variations in perceived confidence and these other factors are examined in the next section.

5.7. Are there differences in levels of perceived confidence between CNEs recruited from different backgrounds?

Bivariate analyses, t-tests and ANOVA were used to answer this question. In general, there are significant differences in perceived confidence between the participants who were recruited from nursing and from non-nursing backgrounds using t-tests (t-value = −5.37, p < .001). On average, those who had backgrounds in nursing (M = 69.55, SD = 13.8) rated their perceived confidence as 7.79 lower than those who had non-nursing backgrounds (M = 77.33, SD = 10.83, 95% CI [−10.65, −4.90]). The results of these tests are presented in Table 18.

Table 18. Differences in perceived confidence between participants of nursing and non-nursing backgrounds.

<table>
<thead>
<tr>
<th></th>
<th>Levene’s Test for equality of variances</th>
<th>t-test for equality of means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>p</td>
</tr>
<tr>
<td>Perceived confidence</td>
<td>Equal variances assumed</td>
<td>8.06</td>
</tr>
<tr>
<td></td>
<td>Equal variances not assumed</td>
<td></td>
</tr>
</tbody>
</table>

Note: SE: standard errors; CI: confidence interval; LL: lower limit; UL: upper limit.
Perceived confidence of those with non-nursing backgrounds: 77.33 ± 10.83.

Differences in perceived confidence between different recruitment backgrounds are also significant via ANOVA (F = 9.12, p < .001). Turkey’s post hoc test was used
for pairwise comparison (Table 19). In particular, CNEs with backgrounds in medicine rated their perceived confidence as 5.88 points higher than those who were recruited as new Bachelor of Nursing graduates ($p = .01, 95\% \text{ CI} [1.06, 10.07]$). The positive effect of a background in medicine was an increase of 8.97 points compared to those who had some experience in practice or teaching in nursing prior to becoming CNEs ($p < .001, 95\% \text{ CI} [4.17, 13.78]$). There are, however, no significant differences in perceived confidence between the CNEs who had nursing backgrounds regardless of their previous experience. These results are illustrated in Table 19 and Figure 18. The boxes in Figure 18 reflect the middle 50\% of perceived confidence distribution and the black horizontal lines indicate the median values.

Table 19. Comparison in perceived confidence among CNEs from subgroup recruitment backgrounds.

<table>
<thead>
<tr>
<th>Background (I)</th>
<th>Background (J)</th>
<th>Mean difference (I – J)</th>
<th>SE</th>
<th>$p^*$</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicine</td>
<td>New Bachelor of Nursing graduates</td>
<td>5.88</td>
<td>1.87</td>
<td>.01</td>
<td>1.06 - 10.70</td>
</tr>
<tr>
<td></td>
<td>Experienced nurses/educators</td>
<td>8.97</td>
<td>1.86</td>
<td>&lt; .001</td>
<td>4.17 - 13.78</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>–4.36</td>
<td>5.13</td>
<td>.83</td>
<td>–17.61 - 8.89</td>
</tr>
<tr>
<td>New BN graduates</td>
<td>Experienced nurses/educators</td>
<td>3.09</td>
<td>1.66</td>
<td>.25</td>
<td>–1.20 - 7.38</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>–10.24</td>
<td>5.06</td>
<td>.18</td>
<td>–23.32 - 2.83</td>
</tr>
<tr>
<td></td>
<td>Experienced nurses/educators</td>
<td>–13.33</td>
<td>5.06</td>
<td>.04</td>
<td>–26.40 - 0.27</td>
</tr>
</tbody>
</table>

Note: *Turkey’s post hoc test; SE: standard errors; CI: confidence interval; LL: lower limit; UL: upper limit.
5.8. Is there a relationship between role preparation, model of recruitment and perceived confidence?

In order to answer this question, it was necessary to examine the effects of role preparation and recruitment models on perceived confidence from different perspectives. Two analysis methods were therefore applied. Linear regression was used to analyse these effects on perceived confidence (as a continuous variable) in general. Logistic regression was used to explore the effects on high levels of perceived confidence. The continuous variable of perceived confidence was thus transformed into a dichotomous variable. The threshold for variable transformation was a 75-point score, referenced to perceived confidence distribution by the lower 50th percentile, as reported in section 6.5. Specifically, perceived confidence below 75 points was categorised as a low level of confidence and above 75 points as high levels of confidence. Partial eta-squared ($\eta^2$) cut-offs were used to assist the interpretation of results. In particular, partial eta-squared cut-

![Graphical comparisons in perceived confidence among CNEs from different recruitment backgrounds.](image)

Figure 18. Graphical comparisons in perceived confidence among CNEs from different recruitment backgrounds.
offs of .01, .06 and .14 respectively represent for small, medium and large effect sizes in ANOVA analysis (Cohen, 1988). Partial eta-squared cut-offs of .02, .13 and .26 represent for small, medium and large effect sizes in multiple regression respectively (Cohen, 1988).

5.8.1. ANOVA analysis

Bivariate analysis was undertaken prior to regression modelling. Variables not only related to role preparation and recruitment methods but also to other backgrounds and demographic variables were included in the analysis to examine any other possible association with perceived confidence. The results are reported in Table 20.

Only two of the eight most common types of preparation methods applied across Vietnam are significantly associated with perceived confidence via one-way ANOVA tests. These methods included workshops in clinical nursing education ($p = .006, F = 7.7$) and simultaneous practice and clinical teaching ($p = .005, F = 7.9$). These associations are from small to medium in effect size ($0.01 < \text{partial } \eta^2 < 0.06$). Although the participants perceived mandatory practice as one of the most effective methods of preparation for their clinical teaching role, this is not associated with perceived confidence. The significant effect of recruitment background has been previously reported in detail in section 6.7 and thus is only presented briefly in Table 20.

There is no association between perceived confidence and previous experience in clinical teaching and practice as a staff nurse; however, previous classroom teaching experience does impact on perceived confidence ($p = .015, t\text{-value} = .13$). Both age ($p < .001, t\text{-value} = .3$) and years of experience in clinical teaching ($p < .001, t\text{-value} = .24$) are significantly associated with perceived confidence (Table 20). The effects of these associations are from small to medium (Pearson’s correlation between .1 and .3).
Regression analysis was continued to examine the joint effect of multi-factors and the extent of the influence on perceived confidence.
Table 20. Bivariate analysis evaluating perceived confidence (continuous variable) in association with potential factors.

<table>
<thead>
<tr>
<th>Perceived confidence</th>
<th>Age</th>
<th>Experience in CNE role (years)</th>
<th>Previous experience</th>
<th>CNE : student ratio</th>
<th>Total number of institutional preparation methods</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Classroom teaching</td>
<td>Clinical teaching</td>
<td>Clinical practice</td>
</tr>
<tr>
<td>Pearson's Correlation</td>
<td>.3</td>
<td>.24</td>
<td>.13</td>
<td>.07</td>
<td>.01</td>
</tr>
<tr>
<td>p-value (2-tailed)</td>
<td>&lt; .001</td>
<td>&lt; .001</td>
<td>.015</td>
<td>.24</td>
<td>.88</td>
</tr>
</tbody>
</table>

1-way ANOVA

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Institutional preparation methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>10</td>
<td>13</td>
</tr>
</tbody>
</table>

F 11.54 2.33 0.98 0.4 10.5 2.70 2.13 7.7 7.93 1.68 0.23 0.21 0.21

Partial Eta square .08 .007 .015 .007 .09 .008 .006 .02 .02 .005 < .001 < .001 < .001

p-value < .001 .13 .43 .88 < .001 .10 .15 .006 .005 .20 .63 .65 .8

5.8.2. Linear regression

All variables in Table 20 that show bivariate association at \( p \leq .20 \) were initially inserted into the general linear model to examine potential effects on the perceived confidence of the CNEs. These variables are: (1) age; (2) gender; (3) experience in CNE role (years); (4) previous experience in classroom teaching; (5) CNE : student ratio; (6) background (recruitment); (7) qualification; (8) pedagogical courses; (9) workshops in clinical nursing education; (10) simultaneous practice and clinical teaching; (11) teaching in simulation laboratories; (12) mentorship; and (13) total number of institutional preparation methods. Regarding the background variable, participants who had backgrounds other than nursing or medicine were excluded, as \( n = 7 \) were insufficient to make a statistical comparison. Similarly with the CNE: student ratio, the teaching model that included two educators teaching a group of students \( (n = 19) \) was also excluded. The results of the initial model are reported in Table 21.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Degree of freedom</th>
<th>( F )</th>
<th>( p )-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected model</td>
<td>19</td>
<td>4.00</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Intercept</td>
<td>1</td>
<td>121.20</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Age</td>
<td>1</td>
<td>2.96</td>
<td>.09</td>
</tr>
<tr>
<td>Gender</td>
<td>1</td>
<td>1.49</td>
<td>.22</td>
</tr>
<tr>
<td>Experience in CNE role (years)</td>
<td>1</td>
<td>0.31</td>
<td>.58</td>
</tr>
<tr>
<td>Previous experience in classroom teaching</td>
<td>1</td>
<td>&lt; 0.01</td>
<td>.97</td>
</tr>
<tr>
<td>CNE : student ratio</td>
<td>4</td>
<td>1.99</td>
<td>.10</td>
</tr>
<tr>
<td>Recruitment background</td>
<td>2</td>
<td>2.53</td>
<td>.08</td>
</tr>
<tr>
<td>Highest qualification</td>
<td>3</td>
<td>2.97</td>
<td>.03</td>
</tr>
<tr>
<td>Pedagogical courses(^1)</td>
<td>1</td>
<td>5.93</td>
<td>.02</td>
</tr>
<tr>
<td>Workshops(^1)</td>
<td>1</td>
<td>5.27</td>
<td>.02</td>
</tr>
<tr>
<td>Simultaneous practice &amp; clinical teaching(^1)</td>
<td>1</td>
<td>5.58</td>
<td>.02</td>
</tr>
<tr>
<td>Teaching in simulation laboratories(^1)</td>
<td>1</td>
<td>0.21</td>
<td>.65</td>
</tr>
<tr>
<td>Mentorship(^1)</td>
<td>1</td>
<td>0.04</td>
<td>.84</td>
</tr>
<tr>
<td>Total number of institutional preparation</td>
<td>1</td>
<td>1.64</td>
<td>.20</td>
</tr>
</tbody>
</table>

Note: Dependent variable: perceived confidence in clinical teaching competence; \(^1\) institutional preparation method, CNE: clinical nurse educator.
Only one of the twelve variables shows a significant relationship with perceived confidence. A backward selection approach was applied. Variables with the highest $p$-values, indicating least importance, were removed from the initial model one at a time. Due to the collinearity between age and years of experience in clinical teaching, two models that resulted from the general linear modelling process are presented.

**5.8.2.1. Model A**

Model A denotes the significant impact of highest qualification, CNE: student ratio, workshops in clinical nurse education and years of experience in clinical teaching. The model is summarised in Table 22. In this model, the effect of highest qualification is highest (partial $\eta^2 = .06$) and the effect of workshops in clinical nursing education is lowest (partial $\eta^2 = .01$). The effect sizes of the two remaining factors are small and from small to moderate (partial $\eta^2 = .01$-.04). Comparison between subcategories of the highest qualification variable indicates that those who had postgraduate degrees in health sciences had 8.07 points higher perceived confidence scores than those who had bachelor of nursing qualifications (95% CI [2.39, 13.76]). In a similar comparison, the odds ratio is 7.32 for those who had qualification in medicines (95% CI [3.50, 10.13]). In contrast, there is no significant association in perceived confidence between nursing undergraduate and postgraduate qualification holders.

While the ratio between CNE and students in a placement generally has an impact on perceived confidence, there is specific evidence of significant effects between five different ratios. On the other hand, attendance at workshops in clinical nursing education helped to increase by 3.22 points the score of perceived confidence among participants (95% CI [0.25, 6.18]), whereas an increase in every year of experience in clinical teaching led to an increase of 0.3 points in the score of perceived confidence.
Table 22. Model A: Effects on perceived confidence.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Beta [95% CI]</th>
<th>F</th>
<th>p-value</th>
<th>Factorial partial $\eta^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected model</td>
<td>5.75</td>
<td>.001</td>
<td>.15</td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>2042.14</td>
<td>.001</td>
<td>.79</td>
<td></td>
</tr>
<tr>
<td>Highest qualification</td>
<td>Bachelor of Nursing$^1$</td>
<td>4.04 [-0.60, 8.67]</td>
<td>6.15</td>
<td>.001</td>
</tr>
<tr>
<td></td>
<td>Postgraduate in Nursing</td>
<td>8.07 [2.39, 13.76]</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Postgraduate in health sciences</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Medical doctor or Master’s of Medicine</td>
<td>7.32 [3.50, 11.13]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CNE:Student ratio</td>
<td>1 CNE: &lt; 10 students$^1$</td>
<td>-3.70 [-8.88, 1.48]</td>
<td>.48</td>
<td>.04</td>
</tr>
<tr>
<td></td>
<td>1 CNE: 11–15 students</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 CNE: 16–20 students</td>
<td>.19 [-5.39, 5.77]</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 CNE: 21–25 students</td>
<td>-0.43 [-5.97, 5.10]</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 CNE: &gt; 26 students</td>
<td>5.73 [-2.76, 14.22]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Workshops in clinical nursing education</td>
<td>No$^1$</td>
<td>3.22 [0.25, 6.18]</td>
<td>4.57</td>
<td>.03</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year of experience in clinical nursing education</td>
<td>.30 [0.07, 0.52]</td>
<td>6.9</td>
<td>.01</td>
<td>.02</td>
</tr>
</tbody>
</table>

$R^2 = .15$, $\Delta R^2 = .12$. Lack of fit test: $p = .69$, $df = 192$, $F = .92$, $\eta^2 = .61$

Note: Dependent variable: perceived confidence; CI: confidence interval; $^1$: reference category.

The lack of fit test result was insignificant, indicating a plausible level of model fitness. Levene’s test in this case was not relevant due to sensitivity likely caused by the large sample size. The estimated comparison of perceived confidence among the participants by attendance at workshops in clinical nursing education is illustrated in Figure 19. Assumptions of the model are examined and reported in Figure 20. The dependent and independent variables are linearly related to each other. All values of the dependent variable (perceived confidence) are serially independent from one another. The normality of the residuals of perceived confidence can be considered acceptable from the histogram and P-P plot. The scatter plot demonstrates no violation of the
assumption of homoscedasticity. In short, this model is effective in explaining the variation of perceived confidence.

Figure 19. Estimated marginal means of perceived confidence by workshops in clinical nursing education.

*Note: MD: medical doctor; MMed: Master of Medicine.
*The estimation was made at 7.58 years of experience in clinical teaching.
5.8.2.2. Model B

Model B includes four factors: years of experience in clinical teaching and three types of institutional preparation methods, which are workshops in clinical nursing education, simultaneous practice and clinical teaching, and mentorship prior to clinical teaching (Table 23). The effects of these variables are from small to moderate (partial $\eta^2 = .02$-
The significant effects of years of role experience \((B = .38, 95\% \text{ CI } [0.18, 0.59])\) and workshops in clinical nursing education on perceived confidence \((B = 3.45, 95\% \text{ CI } [0.48, 6.43])\) in this model are slightly higher than in model A. Meanwhile, simultaneous practice and clinical teaching results in an increase of 3.17 points in the score of perceived confidence. By contrast, the effect of having an informal mentorship in preparation for the clinical teaching role is more likely to decrease by 3.25 points the score of perceived confidence. There is no violation of the assumptions of the general linear model according to the results of the residual analysis (Figure 21). Model B is a satisfactory model to predict the variation in perceived confidence.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Contrast estimate</th>
<th>(F)</th>
<th>(p)-value</th>
<th>Factorial partial (\eta^2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected model</td>
<td></td>
<td>8.18</td>
<td>&lt; .001</td>
<td>.09</td>
</tr>
<tr>
<td>Intercept</td>
<td></td>
<td>3717.65</td>
<td>&lt; .001</td>
<td>.92</td>
</tr>
<tr>
<td>Workshops in clinical nurse education</td>
<td>No¹</td>
<td>5.22</td>
<td>.02</td>
<td>.02</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>3.45 [0.48, 6.43]</td>
<td>.02</td>
<td>.02</td>
</tr>
<tr>
<td>Simultaneous practice &amp; teaching</td>
<td>No¹</td>
<td>4.07</td>
<td>.04</td>
<td>.01</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>3.17 [0.08, 6.26]</td>
<td>.04</td>
<td>.01</td>
</tr>
<tr>
<td>Mentorship</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>4.54</td>
<td>.03</td>
<td>.01</td>
</tr>
<tr>
<td>Years of experience in clinical teaching</td>
<td>.38 [0.18, 0.59]</td>
<td>13.07</td>
<td>&lt; .001</td>
<td>.04</td>
</tr>
</tbody>
</table>

Lack of fit test: \(p = .19, \text{df} = 121, F = 1.15, \eta^2 = .40\)

*Note: Dependent variable: perceived confidence; CI: confidence interval; ¹: reference group.*
Figure 21. Residual analysis of the general linear model B.

5.8.2.3. **Model C**

The effect of workshops in clinical nursing education on perceived confidence in clinical teaching competence continues to be confirmed in model C (Table 24). Model C further reflects the importance of another institutional preparation method – pedagogical
courses. Attendance at these courses is likely to increase by 3.51 points the score of perceived confidence among participants. In this model, significant associations between perceived confidence, recruitment background and age are also demonstrated. With every year of increase in clinical teaching experience, the participants increase by .38 points their perceived confidence score (95% CI [0.19, 0.53]). CNEs with backgrounds in medicine were likely to rate their perceived confidence 3.54 points higher than those who were recruited as new Bachelor of Nursing graduates. This association is, however, found to be insignificant (95% CI [–0.19, 7.27]). Meanwhile, having experience in either teaching or practice prior to recruitment at the current institution significantly affects a decrease of 3.21 points in the score of perceived confidence as compared to those who did not have such experience (95% CI [–6.38, –0.05]). All variables in model C have small or small-to-medium effect sizes (partial \( \eta^2 = .02-0.05 \)). There is no violation of the assumptions of the general linear model according to the results of the residual analysis (Figure 22). Model C is a satisfactory model to predict the variation in perceived confidence.

Table 24. Model C: Effects on perceived confidence levels.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Contrast estimate [95% CI]</th>
<th>F</th>
<th>p-value</th>
<th>Factorial partial ( \eta^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected model</td>
<td></td>
<td>11.22</td>
<td>&lt; .001</td>
<td>.15</td>
</tr>
<tr>
<td>Intercept</td>
<td></td>
<td>61441.15</td>
<td>&lt; .001</td>
<td>.55</td>
</tr>
<tr>
<td>Workshops in clinical nurse education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>3.22 [0.44, 6.00]</td>
<td>5.21</td>
<td>.02</td>
<td>.02</td>
</tr>
<tr>
<td>Pedagogical courses</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>3.51 [0.25, 6.78]</td>
<td>4.48</td>
<td>.03</td>
<td>.01</td>
</tr>
<tr>
<td>Recruitment background</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Bachelor of Nursing graduates1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experienced nurse educators/clinicians</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medicine</td>
<td>–3.21 [–6.38, –0.05]</td>
<td>4.54</td>
<td>.03</td>
<td>.04</td>
</tr>
<tr>
<td>Age</td>
<td>.36 [0.19, 0.53]</td>
<td>17.34</td>
<td>&lt; .001</td>
<td>.05</td>
</tr>
</tbody>
</table>

\( R^2 = .15, \Delta R^2 = .14 \) Lack of fit test: \( p = .01, df = 169, F = 1.48, \eta^2 = .02 \)

Note: Dependent variable: perceived confidence; CI: confidence interval; \(^1\): reference group.
5.8.3. Bivariate comparison of perceived confidence as a binary outcome.

Bivariate logistic regression was undertaken to examine what factors individually affect high levels of perceived confidence among the CNEs. The results are reported in Tables 25 and 26. Among the eight most common institutional preparation methods, three methods – pedagogical courses, workshops in clinical nursing education and
simultaneous practice and clinical teaching – are significantly associated with high levels of perceived confidence among participants. Those who had undertaken pedagogical courses have odds of high levels of perceived confidence 1.90 times higher than those did not (\(OR = 1.90\), 95% CI [1.13, 3.19]). The odds of those who had attended workshops in clinical nursing education having high levels of perceived confidence are 1.67 times higher than those who did not (\(OR = 1.67\), 95% CI [1.08, 2.59]). Similarly, those who practised and taught clinical teaching at the same time were 1.89 times more likely to be highly confident in their CNE role compared to those who did not (\(OR = 1.89\), 95% CI [1.20, 2.98]).

Table 25. Bivariate logistic regression analysis evaluating low and high levels of perceived confidence in association with potential factors.

<table>
<thead>
<tr>
<th>Levels of perceived confidence</th>
<th>Age</th>
<th>Experience in CNE's role (year)</th>
<th>Previous experience</th>
<th>Total number of institutional preparation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-square</td>
<td>27.14</td>
<td>17.05</td>
<td>7.08</td>
<td>1.41</td>
</tr>
<tr>
<td>Odds ratio (95% confidence interval)</td>
<td>1.07</td>
<td>1.07</td>
<td>1.08</td>
<td>1.03</td>
</tr>
<tr>
<td>p-value</td>
<td>&lt;.001</td>
<td>&lt;.001</td>
<td>.02</td>
<td>.25</td>
</tr>
</tbody>
</table>

Table 26. Bivariate analysis evaluating low and high levels of perceived confidence in association with potential factors.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Perceived confidence</th>
<th>Chi-square</th>
<th>p-value (2-sided)</th>
<th>Odds-ratio</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low level n (%)(^1)</td>
<td>High level n (%)(^1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>Male(^2)</td>
<td>41 (44.1)</td>
<td>52 (55.9)</td>
<td>3.07</td>
<td>.08</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>132 (54.8)</td>
<td>109 (45.2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recruitment background</td>
<td>New Bachelor of Nursing graduates(^2)</td>
<td>66 (54.1)</td>
<td>56 (45.9)</td>
<td>11.13</td>
<td>.004(^3)</td>
</tr>
<tr>
<td></td>
<td>Experienced nurses/educators(^2)</td>
<td>75 (60.5)</td>
<td>49 (39.5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Medicine</td>
<td>30 (37)</td>
<td>51 (63)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

158
<table>
<thead>
<tr>
<th>Highest qualification (n = 332)</th>
<th>Bachelor of Nursing&lt;sup&gt;2&lt;/sup&gt;</th>
<th>Postgraduate in Nursing</th>
<th>Postgraduate in health sciences</th>
<th>Medical doctor or Master in Medicine</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>120 (61.9)</td>
<td>74 (38.1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>16 (39)</td>
<td>25 (61)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>9 (37.5)</td>
<td>15 (62.5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>27 (37)</td>
<td>46 (63)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highest qualification frequency (n = 328)</td>
<td>19.09 &lt; .001</td>
<td>2.53 1.27 5.06</td>
<td>2.70 1.13 6.49</td>
<td>2.76 1.58 4.8</td>
</tr>
<tr>
<td>Clinical teaching frequency (n = 328)</td>
<td>1 day/week&lt;sup&gt;2&lt;/sup&gt;</td>
<td>15 (44.1)</td>
<td>19 (55.9)</td>
<td>1.77 0.46 4.17</td>
</tr>
<tr>
<td></td>
<td>2 days/week</td>
<td>24 (47.1)</td>
<td>27 (52.9)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5 half-days</td>
<td>76 (44.7)</td>
<td>51 (40.2)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3 days/week</td>
<td>34 (51.5)</td>
<td>32 (48.5)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4 days/week</td>
<td>12 (50)</td>
<td>12 (50)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5 days/week</td>
<td>9 (34.6)</td>
<td>17 (65.4)</td>
<td></td>
</tr>
<tr>
<td>Clinical practice frequency (n = 331)</td>
<td>7.73 .17</td>
<td>0.89 0.37 2.12</td>
<td>0.53 0.25 1.14</td>
<td>0.74 0.32 1.71</td>
</tr>
<tr>
<td></td>
<td>Currently not practice&lt;sup&gt;2&lt;/sup&gt;</td>
<td>50 (62.5)</td>
<td>30 (37.5)</td>
<td>1.77 0.46 4.17</td>
</tr>
<tr>
<td></td>
<td>1 day/week</td>
<td>7 (33.3)</td>
<td>14 (66.7)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 days/week</td>
<td>6 (50)</td>
<td>6 (50)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3 days/week</td>
<td>4 (40)</td>
<td>6 (60)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4 days/week</td>
<td>3 (50)</td>
<td>3 (50)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5 days/week</td>
<td>14 (48.3)</td>
<td>15 (51.7)</td>
<td></td>
</tr>
<tr>
<td>Clinical practice frequency (n = 331)</td>
<td>7.41 .29&lt;sup&gt;3&lt;/sup&gt;</td>
<td>3.33 1.21 9.19</td>
<td>1.67 0.49 5.64</td>
<td>2.50 0.65 9.58</td>
</tr>
<tr>
<td></td>
<td>Periodically &amp; depending on institutional schedule</td>
<td>88 (50.9)</td>
<td>85 (49.1)</td>
<td>1.61 0.94 2.77</td>
</tr>
<tr>
<td>CNE : student ratio (n =315)</td>
<td>1: fewer than 10 students&lt;sup&gt;2&lt;/sup&gt;</td>
<td>16 (53.3)</td>
<td>14 (46.7)</td>
<td>3.50 .48&lt;sup&gt;3&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>1: 11–15 students</td>
<td>73 (56.2)</td>
<td>57 (43.8)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1: 16–20 students</td>
<td>34 (49.3)</td>
<td>35 (50.7)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1: 21–25 students</td>
<td>38 (52.1)</td>
<td>35 (47.9)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1: more than 26 students</td>
<td>4 (30.8)</td>
<td>9 (69.2)</td>
<td></td>
</tr>
<tr>
<td>CNE : student ratio (n =315)</td>
<td>1: more than 26 students</td>
<td>2.57 0.65 10.21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pedagogical courses&lt;sup&gt;4&lt;/sup&gt;</td>
<td>No&lt;sup&gt;2&lt;/sup&gt;</td>
<td>51 (63.7)</td>
<td>29 (36.3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>122 (46)</td>
<td>132 (52)</td>
<td></td>
</tr>
<tr>
<td>Pedagogical courses&lt;sup&gt;4&lt;/sup&gt;</td>
<td>6.09 .014</td>
<td>1.90 1.13 3.19</td>
<td>1.29 0.84 1.99</td>
<td>1.29 0.84 1.99</td>
</tr>
<tr>
<td>Teaching in stimulation laboratories&lt;sup&gt;4&lt;/sup&gt;</td>
<td>No&lt;sup&gt;2&lt;/sup&gt;</td>
<td>98 (54.7)</td>
<td>81 (45.3)</td>
<td>1.35 .25</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>75 (48.4)</td>
<td>80 (51.6)</td>
<td></td>
</tr>
</tbody>
</table>
### Workshops in clinical nursing education

<table>
<thead>
<tr>
<th>Factors</th>
<th>No²</th>
<th>Yes²</th>
<th>χ²</th>
<th>p</th>
<th>OR ± 95% CI</th>
<th>LL</th>
<th>UL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workshops in clinical nursing education</td>
<td>85 (59)</td>
<td>59 (41)</td>
<td>5.32</td>
<td>.02</td>
<td>1.67 ± 1.08</td>
<td>2.59</td>
<td></td>
</tr>
<tr>
<td>Compulsory practice before teaching</td>
<td>117 (53.2)</td>
<td>103 (46.8)</td>
<td>.50</td>
<td>.48</td>
<td>1.18 ± 0.75</td>
<td>1.85</td>
<td></td>
</tr>
<tr>
<td>Simultaneous practice &amp; teaching</td>
<td>123 (57.5)</td>
<td>91 (42.5)</td>
<td>7.72</td>
<td>.005</td>
<td>1.89 ± 1.20</td>
<td>2.98</td>
<td></td>
</tr>
<tr>
<td>Mentorship</td>
<td>105 (51.5)</td>
<td>99 (48.5)</td>
<td>.02</td>
<td>.88</td>
<td>0.97 ± 0.62</td>
<td>1.50</td>
<td></td>
</tr>
<tr>
<td>Guidelines</td>
<td>133 (51.6)</td>
<td>125 (48.4)</td>
<td>.03</td>
<td>.87</td>
<td>0.96 ± 0.57</td>
<td>1.60</td>
<td></td>
</tr>
<tr>
<td>Micro-teaching</td>
<td>100 (52.6)</td>
<td>90 (47.4)</td>
<td>.12</td>
<td>.73</td>
<td>1.08 ± 0.70</td>
<td>1.67</td>
<td></td>
</tr>
</tbody>
</table>

Note: ¹ Percentage was calculated within the subcategory of the factors (row); ²: reference group; LL: lower limit; UL: upper limit. ³ Using exact test for those with cells less than 5 counts; ⁴ N = 334.

Other factors with significant impact on high levels of perceived confidence among participants include age ($\chi^2(1) = 27.14, p < .001, OR = 1.07, 95\% CI [1.04, 1.10]$), years of experience in clinical teaching ($\chi^2(1) = 17.05, p < .001, OR = 1.07, 95\% CI [1.04, 1.11]$), previous experience in classroom teaching ($\chi^2(1) = 7.08, p = .02, OR = 1.08, 95\% CI [1.01, 1.15]$), total number of institutional preparation methods received ($\chi^2(1) = 4.49, p = .035, OR = 1.12, 95\% CI [1.01, 1.24]$), recruitment background ($\chi^2(2) = 11.13, p = .004$) and highest qualification ($\chi^2(2) = 19.09, p = .001$). In particular, an increase in every year of age, year of experience in clinical teaching, previous year of experience in classroom teaching and total number of institutional methods of preparation result in an increase in the odds ratio of high levels of perceived confidence from 1.07 to 1.12 times.
Compared to the recruitment baseline as a new Bachelor of Nursing graduate, the change in the odds ratio of high levels of perceived confidence among those who had previous experience in practice or teaching nursing is insignificant ($OR = 0.77$, 95% CI [0.46, 1.28]), whereas the difference in odds ratio of high levels of perceived confidence of those who had backgrounds in medicine is significantly two times higher than the baseline ($OR = 2.00$, 95% CI [1.13, 3.56]). Qualifications also have an important effect on participants’ perception of their confidence in clinical teaching. Participants with postgraduate degrees in nursing, health sciences or medicine were more likely to rate themselves at high levels of perceived confidence, 2.53, 2.70 and 2.76 times higher than those who only held Bachelor of Nursing degrees respectively, with 95% confidence intervals of [1.27, 5.06], [1.13, 6.49] and [1.58, 4.8] respectively.

5.8.4. Logistic regression

The results from the bivariate analysis in section 6.8.3 formed a platform to proceed with logistic regression modelling. Initially, all independent variables with $p \leq 0.2$ from Table 25 and 26 were added into a binary logistic regression model to investigate their association with perceived confidence – the dependent dichotomous variable. These independent variables are: (1) age; (2) recruitment background; (3) highest qualification; (4) years of experience in clinical teaching; (5) previous experience in classroom teaching; (6) clinical teaching frequency; (7) pedagogical courses; (8) workshops in clinical nursing education; (9) simultaneous practice and clinical teaching; and (10) total number of institutional preparation methods. The results of the initial binary model are presented in Table 27. Only three of the ten independent variables are significant. A backward approach was followed to select the significant predictors of levels of perceived confidence. Variables with the highest $p$-values, indicating the least
significance, were eliminated from the model one at a time. A stepwise approach was added to help detect multi-collinearity between the independent variables. Two statistically significant models resulted from this regression modelling process. These models are presented in Table 28.

Table 27. Variables in initial binary logistic regression model.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Chi-square</th>
<th>Degree of freedom</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>6.77</td>
<td>1</td>
<td>.01</td>
</tr>
<tr>
<td>Recruitment background</td>
<td>1.79</td>
<td>2</td>
<td>.41</td>
</tr>
<tr>
<td>Highest qualification</td>
<td>5.01</td>
<td>5</td>
<td>.41</td>
</tr>
<tr>
<td>Years of experience in clinical teaching</td>
<td>1.83</td>
<td>1</td>
<td>.18</td>
</tr>
<tr>
<td>Previous experience in classroom teaching</td>
<td>.51</td>
<td>1</td>
<td>.48</td>
</tr>
<tr>
<td>Clinical teaching frequency</td>
<td>8.52</td>
<td>5</td>
<td>.13</td>
</tr>
<tr>
<td>Pedagogical courses</td>
<td>8.79</td>
<td>1</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Workshops in clinical nursing education</td>
<td>3.26</td>
<td>1</td>
<td>.07</td>
</tr>
<tr>
<td>Simultaneous practice and clinical teaching</td>
<td>4.72</td>
<td>1</td>
<td>.03</td>
</tr>
<tr>
<td>Total number of institutional preparation methods received</td>
<td>1.07</td>
<td>1</td>
<td>.30</td>
</tr>
<tr>
<td>Constant</td>
<td>&lt;.001</td>
<td>1</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Note: Overall model significance: \( \chi^2(19) = 64.70, p < .001 \), Nagelkerke \( R^2 = .24 \)

Table 28. Models determining perceived confidence levels.

<table>
<thead>
<tr>
<th>Model</th>
<th>Simultaneous practice and teaching</th>
<th>P-value overall model</th>
<th>Chi-square</th>
<th>df</th>
<th>p</th>
<th>Odds ratio</th>
<th>95% CI*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>37.97</td>
<td>6</td>
<td>.06</td>
<td>1.01</td>
<td>1.01</td>
</tr>
<tr>
<td></td>
<td>Pedagogical courses</td>
<td>.03</td>
<td>1.86</td>
<td>1</td>
<td>.07</td>
<td>1.07</td>
<td>3.22</td>
</tr>
<tr>
<td></td>
<td>Years of experience in clinical teaching</td>
<td>&lt; .001</td>
<td>1.05</td>
<td>1</td>
<td>.07</td>
<td>1.01</td>
<td>1.07</td>
</tr>
<tr>
<td></td>
<td>Highest qualification</td>
<td></td>
<td>.06</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Postgraduate in Nursing(^1)</td>
<td>1.95</td>
<td>.94</td>
<td></td>
<td></td>
<td>4.07</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Postgraduate in health sciences(^1)</td>
<td>2.43</td>
<td>.99</td>
<td></td>
<td></td>
<td>5.98</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Medical doctor or Master of Medicine(^1)</td>
<td>2.53</td>
<td>1.41</td>
<td></td>
<td></td>
<td>4.55</td>
<td></td>
</tr>
<tr>
<td>Model E</td>
<td>Simultaneous practice and teaching</td>
<td>.049</td>
<td>1.62</td>
<td>1</td>
<td>.00</td>
<td>1.00</td>
<td>2.63</td>
</tr>
<tr>
<td></td>
<td>Pedagogical courses</td>
<td>.01</td>
<td>2.10</td>
<td>1</td>
<td>.19</td>
<td>1.19</td>
<td>3.89</td>
</tr>
<tr>
<td></td>
<td>Years of experience in clinical teaching</td>
<td>.004</td>
<td>1.06</td>
<td>1</td>
<td>.02</td>
<td>1.02</td>
<td>1.10</td>
</tr>
</tbody>
</table>
### 5.8.4.1. Model D

Model D reflects the association between two types of institutional preparation (simultaneous practice and teaching, and pedagogical courses), years of experience in clinical teaching, highest qualification and level of perceived confidence. The model is statistically significant ($\chi^2(6) = 37.97, p < .001$) and explains 14.2% of the variance in levels of perceived confidence. Those who simultaneously practised and taught in clinical settings were 1.64 times more likely to rate themselves as having high levels of perceived confidence than those who did not ($p = .04, 95\% \text{ CI} [1.01 - 2.66]$). Similarly, those who attended pedagogical courses as institutional preparation were 1.86 times more likely to perceive themselves as highly confident than those who did not ($p = .03, 95\% \text{ CI} [1.07, 3.22]$). With every year increase in experience in clinical teaching, the participants were 1.05 times more likely to perceive themselves as highly confident ($p = .02, 95\% \text{ CI} [1.01, 1.07]$).

While qualification has an impact on perceived confidence, only those who had graduated as medical doctors or had Master’s degrees in medicine were more likely to perceive themselves as highly confident than those who had a Bachelor of Nursing degree, with an odds ratio of 2.53 (95\% CI [1.41, 4.55]). There is, however, no significant difference between participants who had Bachelor of Nursing degrees and postgraduate degrees in nursing (95\% CI [0.94, 4.07]) or postgraduate degrees in health sciences (95\% CI [0.99, 5.98]).
5.8.4.2. Model E

Model E is similar to model D apart from the use of recruitment background instead of years of experience. The model is statistically significant ($\chi^2(5) = 36.52, p < .001$) and explains 14.1% of the variance in level of perceived confidence. The positive impact of simultaneously practising and teaching clinically on perceived confidence level is reflected through an increase by 1.62 times ($p = .049$, 95% CI [1.00, 2.63]) in the likelihood of high levels of perceived confidence, as opposed to those who did not. Attendance at pedagogical courses also increases the perception of high confidence in clinical teaching by more than two times ($OR = 2.10$, 95% CI [1.19, 3.69]).

While model D demonstrates the substantial influence of qualifications in medicine on the increased likelihood of high levels of perceived confidence, model E similarly shows the positive effect of recruitment backgrounds in medicine among participants. Those who were medical doctors at the point of recruitment significantly rated their confidence level almost twice as high as those who had backgrounds in nursing ($OR = 1.96$, 95% CI [1.05, 3.05]). The negative effect of having previous experience in either teaching or practice on confidence rating is found, however, to be insignificant among participants. Meanwhile, the effect of experience in a clinical teaching role in this model E is slightly higher to that in model D. To be specific, an increase in every year of experience in a clinical teaching role led to an increase of 6% in the perception of high confidence, as compared to 5% in model D. As such, model D and E share similarities in model significance, the effect sizes of every variable and the direction of impact on perceived confidence levels.
5.9. What are the facilitators of and barriers to Vietnamese CNEs’ perceived confidence development?

From the results of the logistic and linear regressions above, the facilitators of and barriers to CNE perceptions of confidence in clinical teaching competence in Vietnam have been identified. These factors are related to recruitment background, qualification, institutional preparation method, age and year of experience in a clinical teaching role. The effect sizes of these factors are small or from small to medium. In particular, institutional preparation methods, including simultaneous practice and clinical teaching, workshops in clinical nursing education and pedagogical courses, consistently and positively influence perceived confidence in general, as well as high levels of perceived confidence.

Other facilitating factors are age and years of experience in a clinical teaching role. These two variables are strongly correlated to each other and practically reflect the same effect of accumulated experience; the application of years of experience thus may be more meaningful in reality. It is noteworthy that the accumulation of experience in clinical teaching over a period of 20 years, especially from 5 to 20 years, was a facilitator of the development of perceived confidence. In contrast, having more than 20 years of experience in clinical teaching impeded perceived confidence. It is also evidenced that informal mentorship hampers perceived confidence.

In general, qualifications and recruitment backgrounds are significantly associated with the perceived confidence of the participants in the bivariate and regression models, although the subscales denote inconsistent associations in the regression models. In particular, qualifications in medicine, postgraduate qualifications in nursing and postgraduate qualifications in other related-health sciences are significantly associated with an increase in the odds ratio of high levels of perceived
confidence in comparison with Bachelor of Nursing qualifications using bivariate analysis. However, in the regression models, only qualifications in medicine exhibit a significant facilitating effect. Meanwhile, the effect of postgraduate qualifications in nursing and in health sciences as compared to those who had highest qualifications as Bachelor of Nursing are insignificant in both linear and logistic regression models. On the other hand, the impact of backgrounds in medicine (as compared to those who were recruited as Bachelor of nursing graduates) is inconsistent and varies from insignificant in the linear regression models to significant in the logistic regression models. The impact of previous experience in clinical practice or teaching of nursing on perceived confidence as compared to those who were recruited as Bachelor of Nursing graduates is also inconsistent. These varied effects suggest an area for further investigation in order to clarify the impact of recruitment method and qualification on the perceived confidence of CNEs.

5.10. Conclusion

This chapter has reported the results of the administration of the CNESAA instrument in the Vietnamese setting. The seven research questions proposed in Chapter Two have been answered accordingly. In the following chapter, these results are discussed in relation to the context of nursing in Vietnam and their meaning for the development of nursing as a profession in this country.
Chapter Six: Discussion and Conclusions

6.1. Introduction

The aim of this study was to explore clinical nurse educators’ (CNEs’) perceived confidence in their clinical teaching role competence. To do this, factors that may potentially influence role confidence, such as recruitment strategies, type of preparation and aspects of nursing education relevant to the Vietnamese context, have been considered. The specific research questions are:

i. What are the models of recruitment of CNEs in Vietnam?

ii. How are CNEs prepared for their role in Vietnam?

iii. What level of perceived confidence do CNEs have in their ability to undertake the teaching role?

iv. Do CNEs develop their perceived confidence in clinical teaching competence over time?

v. Are there differences in perceived levels of confidence in clinical teaching competence between CNEs recruited from different models?

vi. Is there an association between role preparation, model of recruitment and levels of perceived confidence in clinical teaching competence?

vii. What are the facilitators of and barriers to role confidence development among Vietnamese CNEs?

No valid, reliable tool was found to address these important questions and thus the Clinical Nurse Educator Skill Acquisition Assessment (CNESAA) tool was developed and validated using a rigorous process including two separate pilot studies. The details and results of this process have been described and analysed in Chapter Four.
The results of the administration of the CNESAA in Phase Three have been analysed and presented in Chapter Five.

In this chapter, the major outcomes from the three phases are presented. The significance of the study and recommendations for future research and practice are discussed, and the study’s strengths and limitations are explained. Finally, the generalisability of the validated instrument and the study findings are examined before final conclusions are offered.

6.2. Summary of findings

The CNESAA instrument has been developed and fully tested for reliability and validity. The CNESAA instrument has subsequently been administered to seek answers to the seven research questions above. There are three main findings in relation to: (1) recruitment methods; (2) preparation methods; and (3) CNEs’ levels of perceived confidence. The CNEs who participated in this study were recruited from three groups: non-nursing health professionals, new graduates from the Bachelor of Nursing degree and experienced nurses/nurse educators. Each CNE had received three to four different types of preparation. Finally, the majority of participants perceived their level of confidence in clinical teaching to be moderately high or high.

The development of perceived confidence in clinical teaching competence among Vietnamese CNEs is affected by recruitment method, preparation method, qualification, years of experience in the role and CNE–student ratio. These associations are depicted in Figure 23. More specifically, facilitators to confidence development are workshops in clinical nursing education, a period of simultaneous practice and clinical teaching in the early phase of transition to the CNE role, pedagogical courses, postgraduate qualifications and years of experience in clinical teaching (less than 20
years). Barriers to confidence development are informal unstructured mentorship arrangements, high CNE–student ratios and prolonged experience in clinical teaching (more than 20 years). These findings also reflect the central tenet of Meleis’s (2010) *Transitions theory*, which posits that the development of an individual in a transition from one role to another is influenced by personal, community and societal facilitators and barriers. The following discussion addresses these findings in relation to the existing literature and the broader context of nursing in Vietnam that is attempting to rapidly professionalise.

Figure 23. The development of Vietnamese clinical nurse educators’ perceived confidence under the influence of personal, institutional and societal factors.
6.3. Major findings

6.3.1. Recruitment methods

6.3.1.1. Historical contexts influencing recruitment methods of CNEs

The three different models used to recruit Vietnamese CNEs are perhaps a consequence of the ongoing program of nursing reform in Vietnam. The recruitment of non-nurses such as physicians and other health professionals is found to be a common occurrence in Vietnam. This recruitment strategy appears to be the consequence of a long-standing shortage of qualified nurses in Vietnam (Harvey et al., 2013; Jones et al., 2000; Pron et al., 2008) and mirrors that of some other Asian countries such as China (Eddins, Jie, & Huaping, 2011; Gao, Chan, & Cheng, 2012; Wang, Whitehead, & Bayes, 2016). Due to the lack of qualified nurses and a predominately medical model of education, physicians have become the primary educators in nursing programs and have assumed key positions in nursing management (Jones et al., 2000; Pron et al., 2008; van der Velden, Van, Quoc, Van, & Baron, 2010).

After several decades of nursing curriculum and practice predicated on the medical model, the Vietnamese Government has implemented a number of strategies to foster the development of the nursing discipline (Vietnam Ministry of Health, 2008; Xuan, 2010). These strategies particularly focus on the academic sector and include the implementation of Bachelor of Nursing programs in addition to the existing programs at primary, secondary and collegiate levels; an increase in nursing schools, an increase in the number of Bachelor of Nursing enrolments and therefore an increase in nursing graduates in the workforce (Chapman et al., 2013; Harvey et al., 2013; Jones et al., 2000; Vietnam Ministry of Health, 2008). These milestones have facilitated the recruitment of more qualified nurses into the role of nurse educator; however, the
number of nurses in the educator role still does not fully meet the requirements of the developing profession. This gap has led to the recruitment to educator roles of new BN graduates who have no clinical nursing experience.

An important means of socialising nursing students to the profession and to the development of a professional identity is exposure to appropriate role models such as CNEs who are well-versed in nursing theory and experienced in clinical practice (Brown et al., 2012; Goodare, 2015; Price, 2009; Walker et al., 2014). The recruitment of a group of experienced nurses and nurse educators in this study resonates with models of recruitment common in Western countries. Much has been written about the importance of clinical experience as an attribute for successful clinical teaching (Aston et al., 2000; Croxon & Maginnis, 2009; Elcigil & Sari, 2008; Eta et al., 2011; Hou et al., 2011; Lee et al., 2002). Indeed, in many Western countries the role description of a CNE mandates a qualification in nursing and a valid and active practising licence (Australian Nursing and Midwifery Accreditation Council, 2012; Canadian Association of Schools of Nursing, 2014; Commission on Collegiate Nursing Education, 2013; Nursing Council of New Zealand, 2014). Moreover, these compulsory elements, including appropriate clinical expertise, are obligatory aspects of nursing course accreditation standards in these countries, as they are considered essential to the development of appropriately prepared nursing graduates.

While the group of non-nurses in this study reported the highest levels of confidence in their role as CNEs, the recruitment of non-nurses to teach nursing students is particularly worrying in the context of a country such as Vietnam that is striving to professionalise its nursing workforce. The literature reviewed for this study has clearly demonstrated the importance of the CNE role in assisting students to develop their
It is the CNE’s responsibility to facilitate students’ professional socialisation by engaging them in the culture of professional nursing (Strouse & Nickerson, 2016), helping them to obtain and internalise the professional values of nursing (Dinmohammadi et al., 2013) and providing them with relevant role models (Brown et al., 2012; de Swardt et al., 2014; Goodare, 2015; Price, 2009; Walker et al., 2014; Zarshenas et al., 2014). The availability of positive professional role models in clinical settings, such as CNEs and competent nurse clinicians, is said to be pivotal in shaping students’ professional identity as well-grounded nurses (Brown et al., 2012; de Swardt et al., 2014; Goodare, 2015; Price, 2009; Walker et al., 2014; Zarshenas et al., 2014). Walker et al. (2014) report that it is CNEs who characterise the image of professional nurses with appropriate nursing behaviours, values and competence in practice that motivate students to commit to the nursing profession. Walker et al. (2014) also assert that negative role models, such as those who fail to represent nursing as a profession, are detrimental to student development of a professional nursing identity. Physicians, and perhaps even new BN graduates, clearly do not have sound understanding of what it is to be a professional nurse and therefore are unlikely to provide the appropriate professional role-modelling that is deemed necessary to assist student socialisation to the nursing profession.

The involvement of physicians and other health professionals in teaching nursing students is indeed likely to negatively affect the quality of the nursing workforce and the social standing of nursing in Vietnam. A culture of obedience and a lack of critical thinking by nurses has been observed in countries where such models of recruitment exist (Chapman et al., 2013; Crow & Thuc, 2011; Eddins et al., 2011; Jones et al., 2000;
Wang et al., 2016; Zhang & Petrini, 2008). The movement from medically focused to nursing-focused curriculum that Vietnam is currently undergoing occurred in Great Britain a few decades ago. As far back as the 1990s, Reed and Watson (1994) argued that when the focus is on the medical treatment of a patient instead of the provision of nursing care, this impedes the realisation of the nursing role and relevant values, especially in long-term care settings. Similarly, in the late 80s Clifford (1989) identified that the recruitment of teaching personnel who have been trained in a medical model and who lack a nuanced understanding of the art and science of nursing is a backward step in the goal to transform from a medically focused curriculum to a nursing-focused curriculum.

More recently, Forbes (2011) found that when nursing is conceived by CNEs as a task-focused discipline, they are likely to adopt nurse-focused approaches to care rather than more desirable patient-centred approaches. Nurse-focused approaches accentuate the performance of tasks and provision of basic patient care alone, emphasising dependence on physicians’ orders, whereas patient-centred approaches focus on collaboration with other healthcare team members to achieve holistic, patient-centred and individualised patient outcomes (Forbes, 2010, 2011). Nursing students supervised by CNEs with little or no knowledge of nursing are therefore likely to graduate with a limited understanding of the nurse’s role. Thus the continual recruitment of non-nurses is an impediment to the quality of clinical nursing education in Vietnam. The recruitment of BN graduates without substantial competence in nursing practice may also be suboptimal, given their limited opportunity to develop a professional identity.
6.3.1.2. Recruitment methods and perceived confidence

This study appears to be the first to link CNEs’ level of confidence to their model of recruitment. These findings clearly indicate that non-nurse CNEs recorded the highest level of perceived role confidence, while those who recorded the lowest levels of confidence were experienced nurses or nurse educators. These results reflect an important aspect of the decidedly hierarchical nurse–physician relationship in the Vietnamese health system. This hierarchy is attributed to varied and limited educational preparation for nurses, the social stigma of a predominantly female nursing workforce in a male-dominated society, and the involvement and control of physicians in nursing education and practice (Jones et al., 2000; Pron et al., 2008). The strongly held perception that physicians are superior to nurses is, however, not unique to Vietnam (Xu, 2006, p. 420) and appears to be common particularly in developing Asian countries.

The variation in the levels of perceived role confidence among participants who were recruited from different groups may also be related to the differences in the accuracy of the judgment of confidence between experts and novices. Koehler, Brenner and Griffin (2002) indicate that experts are more accurate than novices in responding to surveys about estimation of confidence, and overconfidence is more often found among novices. Burson, Larrick and Klayman (2006) similarly report that when surveyed about tasks that are perceived to be difficult, top performers tend to underestimate their confidence levels. Meanwhile, when surveyed about tasks that appear to be easy, poor performers are more likely to overestimate their confidence levels (Burson et al., 2006). In a seminal work on this topic O’Connor (1989) reviewed the available literature concluding that the unfamiliarity with the surveyed topic is likely to yield over-
confidence results, whereas familiarity can potentially result in the underestimation of confidence.

Vietnamese CNEs who had prior experience of practice and/or teaching nursing had the lowest perceived confidence levels as compared to the remaining participants. This may be indicative of their greater exposure to the reality of nursing practice and clinical teaching, and thus a greater knowledge of the challenges. Non-nurses are unlikely to fully appreciate the complexities of person-centred caring approaches to the planning, implementation and evaluation of patient care. CNEs recruited as BN graduates may also be unaware of their responsibilities to ensure the needs of both patients and students are met, as they have had limited exposure to practice and have not yet developed their own professional identity.

New BN graduates may also experience the Dunning–Kruger effect, which indicates that incompetent people are unable to recognise the limitations of their knowledge and skills (Kruger & Dunning, 1999; Schlosser, Dunning, Johnson, & Kruger, 2013). Kruger and Dunning (1999) published the results of their four original studies which remain the leading seminal works on this subject and have led to numerous subsequent studies in human behaviour and social psychology. These authors explain the issue of overestimated confidence and competence as: (1) insufficient metacognitive skills; (2) unconscious competence and unconscious incompetence; and (3) lack of feedback that provides social comparison of performance (Kruger & Dunning, 1999). O’Connor (1989) asserts that the frequency of feedback on an individuals’ performance can influence the accuracy of their estimation of confidence. More specifically, Ehrlinger et al. (2008) point out that a lack of insight into poor performance can lead to inflated positive self-assessment (overconfidence).
context of Vietnam, CNEs may lack sufficient and appropriate feedback on their teaching performance due to the long-standing lack of qualified nurses and educators.

The implications of inaccurate estimation of confidence can be considerable to both individuals and institutions (Klayman, Soll, González-Vallejo, & Barlas, 1999; Larrick, Burson, & Soll, 2007). Over- and underestimation of confidence can be indicative of incumbent’s misconception about the level of competence required for their job (Larrick et al., 2007) and the lack of ability to realise their own limits of knowledge (Kausel, Culbertson, & Madrid, 2016; Kruger & Dunning, 1999, 2002). Ryvkin, Krajč and Ortmann (2012) suggest that the provision of feedback and opportunities for social comparison can help in addressing the problem of overconfidence or unskilled-unaware practice. The evaluation of teaching performance by colleagues and managers is considered additionally important and helpful in facilitating CNEs’ skill acquisition and reflection on their teaching performance (Jetha et al., 2016).

### 6.3.2. Preparation methods

In contrast to previous reports concerning inadequate preparation of nurse educators including CNEs in Vietnam (Chapman et al., 2013; Lewis et al., 2012), the CNEs who participated in this study had received substantial preparation for their role. Preparation and supporting activities are instrumental to the transition of nurses into nursing education, development of the educator identity and the effectiveness of clinical teaching (Baker, 2010; Cangelosi et al., 2009; Hewitt & Lewallen, 2010; Luhanga et al., 2010; Mann, 2013). Orientation, preparation and support also play a pivotal role in addressing issues regarding role sufficiency and helping incumbents to achieve role mastery (Meleis, 2010).
Despite evidence of considerable effort on behalf of institutions to provide preparation, orientation and support, CNEs internationally continue to report underpreparedness for their role (Eta et al., 2011; Jenkins-Cameron, 2014; McCarthy & Murphy, 2010; Suplee et al., 2014; Williams & Irvine, 2009). These feelings of underpreparedness appear to be consistent with the nature of role transition. During transition, role loss (the pre-existing role of a nurse clinician) and role acquisition (the CNE role) are said to happen concomitantly (Meleis, 2010). Further, these feelings are characterised by a disparity between self-perception and expectations of others, and/or self-perception of inadequacy for the new role (Meleis, 2010). The level of preparation provided to Vietnamese CNEs may be a reflection of the ongoing attempts by the Vietnamese Government and international partners to positively shape and develop nursing, particularly in the last decade (Jarrett et al., 2010; Vietnam Ministry of Health, 2008; Xuan, 2010). Key partnership programs have had substantial impact on the ongoing restructuring of nursing, including “Strengthening nurse-led institutional capacity for in-service education and clinical teaching” (Harvey et al., 2013, p. 673), the “Teaching Fellowship Program” (Chapman et al., 2013, p. 129) and the “Vietnam Nurse Project” (Hill & Crow, 2013, p. 55).

Formal preparation methods have been found to be most meaningful to participants’ perceived confidence development. The results of this study are consistent with previous studies reporting CNEs’ need for formal preparation (Aston et al., 2000; Kaviani & Stillwell, 2000; Warren & Denham, 2010), more particularly, preparation on how best to use adult learning theory to promote student learning and teaching in clinical environments (Anibas et al., 2009; Cangelosi et al., 2009; Eta et al., 2011; Jetha et al., 2016). This study has extended the work of recent studies on the benefits of formalised
programs within the scope of an institution or a partnership program among a small number of institutions (Andersson, Danielsson, Hov, & Athlin, 2013; Bell-Scriber, 2009; Kowalski et al., 2007; Mårtensson, Löfmark, Mamhidir, & Skytt, 2016; Reid, Hinderer, Jarosinski, Mister, & Seldomridge, 2013). This study has shed light on the effectiveness of formal preparation programs at a nationwide level.

The effectiveness of pedagogical courses and workshops in clinical nursing education found in this study may derive from a combination of multiple teaching strategies, the careful design and the format of delivery. Specifically, the use of lectures, group discussion, interaction, scenarios, role-play, self-reflection and provision of feedback in these preparation programs may be essential in order to address any difficulties in understanding expectations associated with the CNE role and performing the CNE role at the expected level. Importantly, the design and format of these programs may also help to facilitate the interaction between novice CNEs and nursing managers, senior CNEs and students. These programs are delivered by experts in clinical nursing practice and education. Pedagogical courses and workshops in clinical nursing education can also be considered role supplement strategies that help to clarify the incongruence (if any exists) between self-expectation and the expectations of relevant stakeholders regarding role performance. The inclusion of multiple, carefully designed sessions in both pedagogical courses and workshops in clinical nursing education seems to be relevant to the learning and developmental process of neophyte CNEs, including non-nurse CNEs, in their educator role.

Another preparation approach shown to be effective in this study is a period of simultaneous practice and clinical teaching (in the early phase of transition into nursing education). This strategy was useful to BN-recruited CNEs and varied from several
months to two years. The model involved these new graduates working as nurse clinicians and taking on a clinical teaching role in the same hospital ward when the employing institution experienced a scarcity of teaching personnel. These new graduates were also simultaneously in a teaching role in classroom settings.

The literature describing clinical education models that involve patient care responsibilities concurrently with clinical teaching responsibilities report that this experience is characterised by heavy workloads, time constraints and role conflicts (Huybrecht et al., 2011; Kalischuk et al., 2013; McSharry et al., 2010; Williams & Irvine, 2009; Williamson et al., 2004). Nevertheless, for new BN-recruited CNEs in Vietnam, this preparation model was the only opportunity for them to develop their clinical practice skills and to be exposed to the role of nurse clinician. In the early transition from new graduate to nurse educator, learning to be a nurse at the same time as having sporadic opportunities to learn to become a CNE appears to be a useful means for the new CNE to reflect on, internalise and actualise both roles. This period might also facilitate the BN-recruited participants in their internalisation of and reflection on knowledge, values, behaviours and attitudes related to their evolving identity as an educator.

In addition to effective preparation methods, this study has also reported the adverse effect of informal mentorship on CNEs’ perceived confidence. Mentorship is widely considered essential to nurse clinicians in the socialisation to, adjustment to and development of the educator role (Dunham-Taylor & Lynn, 2008; Gardner, 2014; Kenny, Pontin, & Moore, 2004; Smith & Zsohar, 2007). Effective mentorship is linked to a sense of psychological empowerment which, importantly, increases nurse educators’ commitment to the organisation (Chung & Kowalski, 2012), job satisfaction and
retention (Bittner & O'Connor, 2012). The effect of mentorship has also been found to vary depending on the formality of the relationship (Cooley, 2013; Mann, 2013; Manning & Neville, 2009; McArthur-Rouse, 2008; McDonald, 2004; Reid et al., 2013; Siler & Kleiner, 2001). In this study, the participants described the use of an informal mentorship relationship as a preparation method. It is clear that mentorship, when introduced informally, is not a helpful strategy to develop CNEs’ confidence. This finding is supported by Siler and Kliener (2001), who also found that the informality of the relationship is a constraint on the understanding of the role and responsibilities of both mentors and mentees. If it is to be an effective preparation strategy, mentorship needs to be a formal, structured and consistent relationship between a senior CNE and a novice. According to Smith, Hecker-Fernandes, Zorn and Duffy (2012), mentoring needs among nurse educators vary over time. Therefore, in order to ensure the effectiveness of mentoring activities, surveying CNEs about their needs at different stages of their transition and career is strongly recommended (Baker, 2010).

In this study, other preparation methods (teaching in simulation laboratories, guidelines, micro-teaching and involvement in clinical practice) were not significantly associated with CNEs’ perceived confidence. Another preparation method that has not been used in Vietnam but found to have potential in America is simulation (role-play). Simulations/role-play have recently been proposed as a method to prepare CNEs for increasingly dynamic and complex clinical settings (Krautscheid, Kaakinen, & Warner, 2008; Shellenbarger & Edwards, 2012). The purpose of simulations/role-play is to emulate the clinical environment to allow CNEs to practise and develop essential clinical teaching skills before undertaking the role in real settings (Shellenbarger & Edwards, 2012). Krautscheid et al. (2008) developed a three-hour program to provide
didactic teaching material and pre-recorded sessions of clinical situations and reflections
on clinical teaching for new CNEs. More intensively, Shellenbarger and Edwards (2012)
proposed a rigorous procedure to design integrative simulations/role-play, including:
review of literature to identify common challenges faced by CNEs; preparation of CNEs
and students for the activities; selection of scenarios; emulation of relevant clinical
environments; role selection; timing for the simulation activities; voice response for
manikins; video-recording for subsequent analysis and feedback; and evaluation of
teaching sessions (Shellenbarger & Edwards, 2012).

Such robust design and careful planning of integrative simulations reflect
conceptual aspects of role supplementation noted by Meleis (2010), incorporating role
clarification, role taking, role modelling, role rehearsal, reference groups and
communication. The combination of these aspects is integral to successful prevention of
and/or solution to difficulties in understanding the role, and the incongruence of role
cognisance and role performance. Simulations/role-play appear to be a potential
approach to help future CNEs particularly non nurses to envisage their role,
responsibilities and expectations related to the role, and the process of clinical teaching
and supervision, before they embark on the role. Given the limited amount of literature
in this area and the initial positive response, further studies aim at evaluating the
effectiveness of this kind of simulations and the effect on role confidence and
competence are recommended.

6.3.3. Experience, postgraduate education and CNE–student ratio
Consistent with previous research, this study has reported the positive impact of
experience and postgraduate qualifications on higher levels of perceived confidence
among the surveyed Vietnamese CNEs. Jenkins-Cameron (2014) identifies a significant
link between experience and an increase in clinical teaching skills. The findings of this study support previous studies reporting that CNEs gradually become more comfortable and confident in undertaking their role as they became more experienced and despite the numerous challenges in the initial stage of transition into clinical teaching (Andrews & Ford, 2013; Chapman, 2013; Griend, 2011; Janzen, 2010; Manning & Neville, 2009).

This study has extended previous research in reporting the variance, rather than linearity, in the effect of years of experience on perceived confidence. The correlation has been found significantly positive only for the period between 5 and 20 years of experience, while less than 5 years is insignificantly positive and more than 20 years is insignificantly negative. Cantwell (2014) reports that the more experienced nurse educators are, the higher role strain level they experience; yet Benner’s *from novice to expert* conceptual framework posits that the development of an individual is linear and they can perform at an expert level after five years of experience (Benner, 1984; Benner, 2004; Benner, Tanner, & Chesla, 2009).

The results of the current study are, rather, reflective of Meleis’ (2010) insight indicating that experience of role transition is multidimensional, transformational and substantially dependent on contextual conditions. It can be understood that in the first five years of transitioning into nursing education, neophyte CNEs might still be in the process of reflecting, internalising, actualising and acquiring the knowledge and skills of the CNE role. After five years, these CNEs may have developed efficient coping strategies, a sense of connectedness, confidence and competence. Having more than 20 years of experience, CNEs may not only have experienced personal changes but also perceived long-term movements within the academic sector and in society, which can in turn considerably affect their perception of role confidence.
Especially in the last 20 years, nursing in Vietnam has been undergoing significant movement from short and basic educational programs to BN programs, from medically focused to nursing-focused curriculum, from absence to the implementation of a licensing system, and from perceived low quality to the standardisation of the nursing workforce, in order to reach nursing standards within Southeast Asia. This means that CNEs who started teaching nursing more than 20 years ago were trained to a lower level of education and practised nursing with a focus on the medical model, and are now facing radical restructuring within the system. This restructuring, together with changes in the burden of disease, population demographics and medical technologies, may present substantial challenges to these experienced CNEs and thus their perception of confidence in undertaking the CNE role has been affected.

Meleis’ (2010) conceptual proposition is further reflected in this study through the variation in the effect of years of experience on Vietnamese CNEs’ perceived confidence under the effects of personal, societal and contextual factors. The positive effect of experience is considerably smaller than those of postgraduate education and three institutional preparation approaches (pedagogical courses, workshops in clinical nursing education and a period of simultaneous practice and clinical teaching in the early phase of transition to nursing education). In addition, the impact of years of experience has been found to increase with the availability of institutional preparation programs. By contrast, the impact decreases when CNEs receive informal mentorship or have to deal with high CNE–student ratios that vary between 1:10, 1:10–15, 1:15–20 and 1:20–25. High CNE–student ratios also have detrimental impact on CNEs’ perceived confidence. This empirical evidence, coupled with the recommendation of a ratio of 1:8 or less
(Budgen & Gamroth, 2008), may be useful in informing leaders and managers in nursing academic sectors when planning clinical learning experiences in the future.

The benefit of postgraduate qualifications found in this study is supportive of the Vietnamese Government’s efforts in the professionalisation of nursing. In Vietnam, a postgraduate qualification for educator is not yet a requirement due to the low percentage of qualified nurses. Since the 1990s, the majority of nurse educators in Vietnam have been able to pursue postgraduate study as the result of central government strategic development schemes, provincial government financial allocation and partnerships with international nursing organisations (Chapman et al., 2013; Jarrett et al., 2005; Pron et al., 2008). This study is the first to report the outcomes of these initiatives on the significantly higher levels of perceived confidence among CNEs. This finding is supported by Kelly (2006), who asserts that there are distinctions in role performance and how clinical teaching strategies are used between participants prepared at different educational levels. It is therefore important for the Vietnamese Government’s efforts to be continued and sustained, not only during but more importantly beyond the reformation of nursing, to ensure long-term development of this profession in Vietnam.

6.4. Strengths and limitations

The measurement of CNEs’ perceived confidence in their clinical teaching role competence is essential to their preparation, and to the evaluation and improvement of their teaching capacity worldwide. The instrument developed in this study to measure perceived confidence is the first of its kind. Fully validated and reliable tools of this kind are a vital addition to nursing education. This tool has the capacity to address the lack of an evidence-base in the preparation of CNEs in Vietnam and other developing countries, as well as in the developed world. The World Health Organization (2013) emphasises
that addressing this lack of evidence is necessary for the transformation and expansion of educational programs for nurses and other health professionals internationally. In a climate of promoting evidence-based practice among nurses, the use of evidence in the preparation and training of CNEs is an essential strategy.

This study is also the first to report the possible implications of non-nurse recruitment strategies. The recruitment methods used in some Asian countries are observed to be similar to that in Vietnam (Eddins et al., 2011; Wang et al., 2016), although there is little official evidence in this area. The findings from this study will also be helpful in informing decision-making in China and other relevant contexts.

Some limitations also exist in this study. The CNESAA instrument has been established with high internal reliability, and content and convergent validity; its discriminant validity is, however, low. It is suggested that a confirmatory factor analysis approach be reconducted in another population with a sample size larger than 240 to enhance the discriminant validity of the CNESAA before further use. In addition, despite the numerous preventive and therapeutic strategies that have been implemented during the survey process to ensure the accuracy of survey responses, participant subjectivity may be unavoidable in this study. However, participant subjectivity is a complex issue and may be related to social, psychological and human behaviours that are beyond the focus and scope of this study.

6.5. Implications for clinical nursing education

The empirical findings from this study may help to inform the preparation of CNEs in other settings in the future, particularly:
- Emphasis on the use of intensive and formal preparation approaches to provide new CNEs whether nurses or non-nurses with knowledge and understanding of adult learning theory and teaching skills pertinent to the clinical environment.

- Ceasing the use of informal preparation approaches (for example mentorship) due to their unfavourable effects.

- Use of the CNESAA instrument to evaluate and revise the currently used preparation methods. Prior to the application of the CNESAA instrument, it is necessary to provide CNEs with frequent and constructive feedback on their clinical teaching performance so that they are aware of their actual level of competence.

- Combining both exploratory and confirmatory factor analysis as a standard process to develop new survey instruments in nursing education.

6.6. Implications for Vietnam

This study has unveiled important aspects about clinical nursing education in Vietnam. Based on the study findings, the following implications for the current practice of clinical nursing education are provided:

- Recruitment of experienced nurse clinicians and the implementation of preceptorship model of clinical nursing education should be fast tracked to address the shortage of nurse educators.

- The recruitment of non-nurses without exposure to clinical practice should be limited.

- Non-nurses should be required to undertake specific preparation programs to familiarise them with the person-centred holistic approach to practice of nursing.
- BN-graduated CNEs should have substantial preparation period to be exposed to clinical working environment and to develop the identity of a nurse clinician prior to take on the CNE role.

- Attempts should be made to reduce high CNE-student ratios due to its detrimental effect on CNEs’ perceived confidence and on the quality of clinical teaching.

- It is necessary for nursing institutions to continue to foster the use of pedagogical courses, workshops in clinical nursing education and a period of simultaneous practice and clinical teaching in the early phase of transition to nursing education in order to orientate, prepare and support CNEs in their role.

- The central and local governments should continue and, importantly, sustain financial support schemes for nurse educators, especially post-reform periods, to pursue postgraduate studies, due to the significant effect on teaching capacity building.

- Managers and administrators of nursing institutions need to formalise mentorship in order to achieve desired outcomes in preparing newly recruited CNEs for their role.

- It is highly recommended to discontinue ineffective preparation approaches, including: teaching students in simulation laboratories, written guidelines, microteaching and a period of compulsory practice after recruitment and prior to teaching.

6.7. Generalisation of the study findings

Although this study was conducted in one country, its findings can be generalised to other countries due to the robust design of a multi-phase, multi-setting study and the
rigorous research processes. Firstly, rigorous procedures in the design, development, piloting and validation of an instrument are pivotal to establishing a high-quality means of data collection. While strongly recommended by seminal authors in multivariate analysis, the use of an extra step to validate the factor analysis result is reported to be often neglected in nursing studies (Ferguson & Cox, 1993; Hair et al., 2010; Watson & Thompson, 2006). This study sets an example for future instrument-development studies in the use of a two-phase validation approach: the replication of exploratory factor analysis on two subsets of the pilot data and the conduct of confirmatory factor analysis on another separate sample.

Additionally, in order to effectively and efficiently prepare CNEs for their role in a resource-saving initiative, it is fundamental to apply scientifically proven preparation methods. The use of a high-quality instrument, such as the CNESAA in this study, is necessary to create evidence on the association between certain factors, preparation methods and CNEs’ confidence development in many other countries and on large scales. A similar approach can be applied in the education of other health professionals. Importantly, the findings about effective and ineffective preparation methods, as well as facilitators of and barriers to the confidence development of Vietnamese CNEs, can be helpful for the preparation of CNEs in other countries. In particular, avoidance of the use of informal mentorship for CNEs without combination with another formalised mentoring relationship and reduction of CNE–student ratios to 1:8 or less are strongly recommended in all settings.

6.8. Recommendations for future research

Although the concepts of confidence and competence are closely linked to each other, this study has only addressed the confidence aspect of CNEs. There is a need to explore
the competence aspect of nurse educators in their clinical teaching role in the future, in particular the assessment and measurement of CNEs’ competence. Moreover, simulations/role-play appear to be a potentially effective approach that allows CNEs to envision the multiplicity of their role prior to embarking on the role in clinical settings. However, research in this area is limited and thus more research should be conducted to explore the actual effect of simulations/role-play. Further, more nationwide surveys should be conducted in other Asian countries to explore the magnitude of the recruitment of non-nurses and non-practising nurses to undertake the CNE role.

6.9. Conclusions

This study has been conducted to address literature gaps in clinical nursing education, with a particular focus on CNEs’ confidence in their role competence in the Vietnamese setting. The highlighted gaps in the literature include: the lack of a valid and reliable instrument to measure CNEs’ perceived confidence in their clinical teaching competence; the lack of empirical evidence about effective preparation and supporting activities for CNEs; and the lack of understanding about clinical nursing education in developing countries, particularly Vietnam. A descriptive survey research methodology, a multi-phase and multi-site design, and multiple data analysis approaches have been used to answer the research questions. The outcomes of this study include the validated CNESAA instrument, answers to all the research questions, evidence to inform implications for current practice in the preparation of CNEs, and recommendations for future research.
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GUIDELINE FOR SITE CHAMPIONS

Full Project Title: The differences in perceived confidence and competence to teach clinical nursing among nurse educators in Vietnam.6

Principal researcher: Professor Maxine Duke
Student researcher: Ngoc Bich Van Nguyen
Associate researcher: Doctor Helen Forbes

Dear champions,

Thank you very much for agreeing to assist us with this research project. Your participation will help us to recruit clinical nurse educators (CNEs) and to collect the information we need to complete the research. The following information is provided to clarify key points of your role as a champion in the research process.

1. The central role as a champion of the research project is to recruit clinical nurse educators (CNEs) at your workplace.

   CNEs are eligible to participate if they:
   - are employed by your institution
   - teach nursing at bachelor (4-year program) or (and) collegiate (3-year program) degree

6 The title of the thesis was later changed to “Measuring nurse educator confidence in clinical teaching competence”. The change was approved by the School of Nursing and Midwifery, Faculty of Health, Deakin University on 24/02/2016.
- teach nursing students in hospital settings in:
  - Fundamental nursing, and/or
  - Medical nursing, and/or
  - Surgical nursing.

CNEs will not be eligible if they:
- do not meet the above criteria,
- are teaching nursing students in settings other than fundamental, medical and surgical nursing.

2. Your role in this phase will include the following sequenced activities **at your workplace**:

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<th>Step</th>
<th>Activities</th>
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<td>1</td>
<td>• Identify contact details of the direct manager of the nursing department.</td>
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<td>2</td>
<td>• Assist the researchers to obtain letter of permission from the manager to conduct the research project.</td>
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<td>3</td>
<td>• Obtain a list of email addresses of eligible CNEs.</td>
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<td>4</td>
<td>• Forward the researchers’ email to the CNEs. (The email will be sent to you and the CNEs, containing the invitation to participate in the research, the Plain Language Statement (PLS) and Ethical Considerations Approval).</td>
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<td>If the response rate for the online survey is low</td>
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<td>• <strong>1 week later</strong>, organise a meeting with all eligible CNEs to explain to the CNEs:</td>
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<td>- Voluntary nature of participation,</td>
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<td>- Ability to withdraw from the study, and</td>
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<td>- Anonymity and confidentiality of research data.</td>
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<td>6</td>
<td>o Answer any questions regarding the research process if raised by the CNEs.</td>
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<td>o Distribute the survey to the CNEs in 2 ways:</td>
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<td><strong>Electronically:</strong></td>
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<td>- Remind the CNEs about the URL sent to their emails 1 week before.</td>
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<td>9</td>
<td>- Re-send the URL to the CNEs if necessary.</td>
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</table>
- Encourage the CNEs to complete the survey in the meeting if privacy is ensured.
- Inform the CNEs that they can also complete the e-survey at any time and place that is most convenient for them in 1 week.

**Paper-based:**
- Distribute the printed surveys to CNEs who do not have access to computer/internet, or who prefer the paper-based version.
- Encourage the CNEs to complete the survey in the meeting if privacy is ensured.
- Inform the CNEs that they can also complete the survey at any time and place that is most convenient for them and return the completed survey (in a sealed envelope) to you in 1 week.
- Collect the completed and spare printed surveys. Use registered mail service to post them all back to the researchers.

- Use the addressed envelope to send the post receipts to the researchers

Should you have any questions about the above guidelines, please contact us via email nbn@deakin.edu.au or telephone +84 963024842 or +61 402944507 (Ngoc Bich Van Nguyen).

Once again, thank you very much for your valuable time and assistance with this research project.

Sincerely thanks,

**The research team**

Professor Maxine Duke
Doctor Helen Forbes
Ngoc Bich Van Nguyen
Kính thưa quý thầy cô,
Chúng tôi trân trọng cảm ơn quý thầy cô đã đồng ý hỗ trợ chúng tôi trong dự án này qua vai trò công tác viên. Sự tham gia của quý thầy cô sẽ rất quan trọng đối với chúng tôi trong quá trình tuyển chọn các giáo viên, giảng viên làm sàng điều dưỡng (GVLSDD), đồng thời thu thập các thông tin cần thiết nhằm hoàn tất nghiên cứu này. Việc cung cấp những thông tin sau đây nhằm giúp quý thầy cô hiểu rõ hơn những công việc chính mà quý thầy cô sẽ chịu trách nhiệm trong vai trò công tác viên.

1. Vai trò trọng tâm của công tác viên nghiên cứu trong dự án này là nhằm tuyển chọn các GVLSDD phù hợp tại cơ quan của quý thầy cô.

Những GVLSDD phù hợp để tham gia nghiên cứu nếu họ:

- Làm việc tại cơ quan (đại học/cao đẳng) của quý thầy cô.
- Đã, đang hoặc luân phiên giảng dạy chương trình cử nhân điều dưỡng (4 năm) và/hoặc cao đẳng điều dưỡng (3 năm).
- Đã, đang hoặc luân phiên giảng dạy sinh viên điều dưỡng tại bệnh viện cho các học phần sau:
  - Điều dưỡng cơ bản, và/hoặc
  - Điều dưỡng nội, và/hoặc
  - Điều dưỡng ngoại.
(Tất cả những học phần này bao gồm cả điều dưỡng người lớn và/hoặc điều dưỡng nhi).

GVLSDD sẽ không phù hợp để tham gia nghiên cứu nếu họ:
- Không thỏa những điều kiện tuyển chọn trên, hoặc,
- Chỉ giảng dạy lâm sàng cho những học phần khác ngoài điều dưỡng cơ bản, điều dưỡng nội, hoặc điều dưỡng ngoại.

2. Vai trò của quý thầy cô trong giai đoạn này bao gồm những hoạt động theo thứ tự sau, áp dụng ngay tại cơ quan làm việc của quý thầy cô:

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<th>Bước</th>
<th>Chi tiết hoạt động</th>
<th>Dành đầu dã thị thực hiện</th>
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<tr>
<td>1</td>
<td>Tổ chức 1 buổi họp với tất cả các GVLSDD thỏa điều kiện tham gia nghiên cứu nhằm giải thích với các GVLSDD về:</td>
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<td>o Việc tham gia nghiên cứu một cách tự nguyện</td>
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<td>o Khả năng rút khỏi tham gia nghiên cứu</td>
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<td>o Tính bảo mật và bí mật của các dữ liệu nghiên cứu.</td>
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<td>2</td>
<td>Trả lời các câu hỏi về quy trình nghiên cứu được đặt ra bởi các GVLSDD (nếu có).</td>
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<td>3</td>
<td>Phát bảng khảo sát cho các GVLSDD bằng cách sau:</td>
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<td>o Phân phát bảng khảo sát đã in sẵn cho các GVLSDD, những người không có điều kiện sử dụng máy vi tính hoặc không có kết nối internet; hoặc những người ưa chuộng hình thức bảng in sẵn hơn.</td>
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<td>o Khuyến khích các GVLSDD hoàn thành bảng khảo sát ngay trong buổi họp nếu có thể đảm bảo được tính riêng tư đối với nội dung trả lời của các GVLSDD.</td>
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<tr>
<td>5</td>
<td>Khuyến khích các GVLSDD hoàn thành bảng khảo sát ngay trong buổi họp nếu có thể đảm bảo được tính riêng tư đối với nội dung trả lời của các GVLSDD.</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Trong trường hợp các GVLSDD không thể hoàn tất bảng khảo sát ngay tại buổi họp, quý thầy cô vui lòng nhắc nhắc họ rằng họ có thể hoàn thành bảng khảo sát in sẵn và bỏ vào bì thư đính kèm, dán niêm phong bì thư và gởi lại cho quý thầy cô trong vòng 1 tuần.</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Thu thập tất cả các bảng khảo sát đã được hoàn tất, cùng với các bảng khảo sát còn dư (chưa sử dụng) và</td>
<td></td>
</tr>
</tbody>
</table>
Trong trường hợp có bất kỳ câu hỏi nào liên quan đến hướng dẫn này, quý thầy cô vui lòng với chúng tôi qua địa chỉ thư điện tử nbn@deakin.edu.au hoặc +61392517385 (Nguyễn Ngọc Bích Vân).

Một lần nữa, chân thành cảm ơn thời gian cũng như sự hỗ trợ quý báu của quý thầy cô trong dự án nghiên cứu này.

Trân trọng,

Nhóm nghiên cứu

Giáo sư Maxine Duke
Tiến sĩ Helen Forbes
Nghiên cứu sinh Nguyễn Ngọc Bích Vân
PLAIN LANGUAGE STATEMENT

TO: Potential participants

Date: 08/04/2014

Full Project Title: The differences in perceived confidence and competence to teach clinical nursing among nurse educators in Vietnam.  

Principal Researcher: Professor Maxine Duke
Student Researcher: Ngoc Bich Van Nguyen
Associate Researcher(S): Doctor Helen Forbes

Dear nurse educators,

Thank you for your interest in our research project. The project is a part of my PhD study and is directly monitored by the Research committee of the School of Nursing and Midwifery, Deakin University.

Our research is about clinical nursing education in Vietnam. This document will help you to know more about what your participation in the project would involve and help you to decide whether or not you want to participate in this study.

Please read this document carefully. If you have any questions about this research, please do not hesitate to contact me (contact details below).

Participation in this research project is voluntary. If you don’t want to take part in the project, you don’t have to. You do not have to explain the reason and choosing not to

---

7 The title of the thesis was later changed to “Measuring nurse educator confidence in clinical teaching competence”. The change was approved by the School of Nursing and Midwifery, Faculty of Health, Deakin University on 24/02/2016.
participate will not affect your professional relationships or employment with the organisations involved in this project.

1. **Background of this research**
Clinical nurse educators are important to teaching, facilitating and supporting nursing students to develop practical skills, decision-making skills and becoming familiar with the health care environment. It has been reported in developed countries that nurse educators experience a number of challenges in their clinical teaching role. We would like to know about your experience and perspective about being a clinical nurse educator in Vietnam.

2. **What is the aim of this research?**
The aim of this study is to investigate clinical nurse educators’ experience of clinical teaching and their development of clinical teaching skills.

3. **What does participation in this research project involve?**
If you are interested in participating in this research, there are two ways you can contribute:
   a. **An anonymous survey which may take you approximately 15 - 20 minutes to answer.**
      - You can complete the online survey (with the link provided in this email) at any time and location that is convenient for you. If you prefer, you can complete a paper-based survey, which will be available at the place where you work. A stamped addressed envelope will be provided to allow you to return the completed survey anonymously.
      - The survey will include questions about your professional background and questions about your experiences of clinical teaching.
   b. **A face-to-face interview which will take approximately 45-90 minutes.**
      - The audio-taped interview will be conducted in a quiet area of your choosing and you will be able to decide the time that is most convenient for you. If you agree to participate in an interview, you will be asked to sign a consent form before the interview begins. If you would like to check what you have said in the interview, you can ask for a copy of the interview transcript to be sent to you.
4. **What are the risks and benefits of participation in this research project?**

There will be no direct benefits for you by participating in this research. However, your experiences and perspectives may contribute to future programs to support and assist nurse educators to develop their clinical teaching skills.

No risk to you is likely or anticipated however should you experience emotional discomfort during the interview, the interview can be paused or ceased. You have the right to refuse any question or withdraw from the interview without any comment or penalty. You may also seek support from the health station at your institute or from the nearest counselling support centre in your local area.

5. **Can I withdraw from this research project?**

- Once you complete the online or paper-based survey and submit your responses, you will be unable to withdraw from the survey. This is because the survey is anonymous and we cannot identify your individual questionnaire.

- You may withdraw from the interview at any time during the interview at any time before the data is analysed by contacting the researcher (details below).

6. **What will happen to information about me?**

- Your responses to the survey cannot be identified and are anonymous. No personal identification data will be obtained.

- Your answers in the interview will be audio-recorded. No name or identifiable information will be recorded. Your name on the consent form will be stored in a locked drawer separate from your interview transcript and kept entirely confidential. Only the researcher and her supervisors will have access to the interview data. Your name will not appear anywhere in the interview data.

- Pseudonyms will be used during the interview, transcription, data analysis and data interpretation. Thus, your information will be kept private and confidential.

- All data obtained from you will only be used for research purposes. In accordance with regulatory guidelines, all type of information in this research project will be kept for at least five years after which time it will be destroyed. Information is stored securely (in locked filing cabinets and on protected computers at the School of Nursing and Midwifery, Deakin University, Australia). No identifiable information will be used in any publication or presentation.
7. **How can I access the results of this research?**

Upon the completion of this research project, findings will be presented in a dissertation. A summary and a report of the findings will be sent to the institutions participating in this research project. A copy of project results will also be sent to you electronically if you request. Findings of this research will be presented in a written thesis, published in professional journals and presented at nursing conferences.

8. **Who has reviewed the research project?**

- All research in Australia involving humans is reviewed by an independent group of people called a Human Research Ethics Committee (HREC).
- The ethical aspects of this research project have been approved by the Deakin University Human Research Ethics Committee (DUHREC).
- This project will be carried out according to the *National Statement on Ethical Conduct in Human Research* (2007). This statement has been developed to protect the interests of people who agree to participate in human research studies.

9. **Further information and who to contact:**

The person you may need to contact will depend on the nature of your query. If you want any further information concerning this project or if you have any problems which may be related to your involvement in the project, you can contact any of the following people:

<table>
<thead>
<tr>
<th><strong>Professor Maxine Duke</strong></th>
<th><strong>Postal address:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tel: +61 3 92446578</td>
<td>Email: <a href="mailto:Maxine.duke@deakin.edu.au">Maxine.duke@deakin.edu.au</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Doctor Helen Forbes</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tel: +61 3 92446129</td>
<td>Email: <a href="mailto:Helen.forbes@deakin.edu.au">Helen.forbes@deakin.edu.au</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Ngoc Bich Van Nguyen</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tel: +61 392517385</td>
<td>Email: <a href="mailto:Nbn@deakin.edu.au">Nbn@deakin.edu.au</a></td>
</tr>
</tbody>
</table>

10. **Conflict of interest**

No conflict of interest is seen among researchers and those who will be involved in the conduct of this research project.

11. **Complaints**

If you have any complaints about any aspect of the project, the way it is being conducted or any questions about your rights as a research participant, then you may contact:

The Manager, Research Integrity, Deakin University, 221 Burwood Highway, Burwood Victoria 3125, Telephone: +61 3 9251 7129, research-ethics@deakin.edu.au

Please quote project number [HEAG-103_2014].
BẢNG THÔNG TIN DÀN CHO NGƯỜI THAM GIA NGHIÊN CỨU

Kính gửi: Người tham gia nghiên cứu

Ngày: 24/05/2014

Tên dự án: Sự khác biệt về sự tự tin và kỹ năng giảng dạy làm sàng của giảng viên điều dưỡng tại Việt Nam.

Nghiên cứu viên chính: Giáo sư Maxine Duke
Nghiên Cứu Sinh: Nguyễn Ngọc Bích Vân
Nghiên Cứu Viên Phụ: Tiến Sĩ Helen Forbes

Kính gửi các giảng viên, giáo viên điều dưỡng,

Chúng tôi trân trọng cảm ơn sự quan tâm của quý thầy cô về dự án nghiên cứu này. Dự án này là một phần trong chương trình đào tạo Tiến sĩ của nghiên cứu sinh Nguyễn Ngọc Bích Vân và được giám sát trực tiếp bởi Hội Đồng Nghiên Cứu, trường Điều Dưỡng và Hợp Sinh, Đại học Deakin.

Nghiên cứu này tìm hiểu việc giảng dạy làm sàng điều dưỡng (GD LSĐD) tại Việt Nam. Văn bản này sẽ cung cấp cho quý thầy có những thông tin cần thiết nhằm giúp quý thầy cô hiểu rõ hơn về nghiên cứu này và đưa ra quyết định tham gia nghiên cứu của chúng tôi.

Quý thầy cô vui lòng đọc văn bản một cách chi tiết. Nếu có bất kỳ câu hỏi nào về nghiên cứu này, quý thầy cô hãy liên hệ với chúng tôi qua địa chỉ được đề cập ở cuối văn bản.

Việc tham gia nghiên cứu này là hoàn toàn tự nguyện. Quý thầy cô không bị bắt buộc phải tham gia nghiên cứu nếu quý thầy cô không muốn tham gia. Quý thầy cô không phải giải thích bất cứ lý do gì khi từ chối tham gia nghiên cứu và điều này hoàn toàn
không ảnh hưởng đến môi trường quan nghề nghiệp của quý thầy cô với bất kỳ cơ quan nào có liên quan trong dự án này.

1. Thông tin nền về nghiên cứu
Giáo viên hướng dẫn lâm sàng điều dưỡng (GV HDLS DD) có vai trò vô cùng quan trọng trong việc giảng dạy, thực hành và hỗ trợ sinh viên điều dưỡng phát triển kỹ năng thực hành, kỹ năng ra quyết định cũng như việc làm quen với môi trường chăm sóc sức khỏe. Các nghiên cứu ở các nước phát triển chỉ ra rằng các giảng viên, giáo viên điều dưỡng phải đối mặt với rất nhiều thử thách khi đảm nhận vai trò giảng dạy lâm sàng. Vì vậy, chúng tôi mong muốn tìm hiểu về quan điểm và trải nghiệm của quý thầy cô khi trở thành GV HDLS DD tại Việt Nam.

2. Mục đích nghiên cứu này là gì?
Nghiên cứu này nhằm tìm hiểu về những trải nghiệm của các giảng viên, giáo viên điều dưỡng (GVĐĐ) về việc giảng dạy lâm sàng và việc phát triển các kỹ năng giảng dạy lâm sàng điều dưỡng.

3. Việc tham gia nghiên cứu này sẽ bao gồm những gì?
Nếu quý thầy cô quan tâm đến nghiên cứu này, quý thầy cô có thể tham gia bằng 2 cách sau:

a. Hoàn thành bảng câu hỏi không định danh (trong khoảng 15 - 20 phút)
   - Quý thầy cô có thể hoàn thành bảng câu hỏi trực tuyến (đường dẫn sẽ được gửi qua email của quý thầy cô) vào bất cứ thời gian hoặc địa điểm nào thuận tiện. Tuy theo sở thích cá nhân, quý thầy cô cũng có thể trả lời qua bảng câu hỏi in sẵn tại cơ quan của mình. Bi thư (phong thư) có dán tem sẵn sẽ được cung cấp đúng đủ để quý thầy cô gửi câu trả lời của mình về cho chúng tôi một cách bảo mật.
   - Bảng câu hỏi sẽ bao gồm những câu hỏi về thông tin nghề nghiệp và trải nghiệm của quý thầy cô về việc giảng dạy lâm sàng.

b. Tham gia cuộc phỏng vấn trực tiếp kéo dài từ 45-90 phút.
   - Cuộc phỏng vấn có thể diễn ra ở nơi yên tĩnh do chính quý thầy cô đề nghị để được tạo điều kiện thuận tiện nhất cho bản mình. Nếu đồng ý phỏng vấn, quý thầy cô sẽ được đề nghị ký “đơn đồng ý tham gia nghiên cứu” trước khi cuộc phỏng vấn bắt đầu.
- Trong trường hợp quý thầy cô muốn kiểm tra lại nội dung mình đã chia sẻ qua cuộc phỏng vấn, quý thầy cô có thể yêu cầu một bản sao nội dung giải băng được gửi lại sau đó.

4. Những nguy cơ và lợi ích nào liên quan đến việc tham gia nghiên cứu này?
Sẽ không có lợi ích trực tiếp nào liên quan đến việc tham gia nghiên cứu này. Tuy nhiên, quan điểm và trải nghiệm của quý thầy cô sẽ rất hữu ích trong việc xây dựng những chương trình trong tương lai nhằm hỗ trợ các GVĐD phát triển kỹ năng giảng dạy lành mạnh.

Chúng tôi dự đoán không có nguy cơ nào sẽ xảy ra cho người tham gia nghiên cứu. Tuy nhiên, trong quá trình phỏng vấn, nếu quý thầy cô cảm thấy không thoải mái thì cuộc phỏng vấn sẽ được dừng lại hoặc hủy bỏ. Quý thầy cô cũng có quyền từ chối bất kỳ câu hỏi nào trong cuộc phỏng vấn, đồng thời cũng có quyền rút khỏi cuộc phỏng vấn mà không phải nhận lỗi nhận xét hoặc hình phạt nào. Sau đó, quý thầy cô cũng có thể tìm kiếm sự hỗ trợ từ trạm y tế ngay tại cơ quan mình làm việc, hoặc trung tâm tư vấn tâm lý tại địa phương.

5. Tôi có thể rút khỏi nghiên cứu này không?
Một khi hoàn tất bảng câu hỏi trực tuyến hoặc bảng câu hỏi in sẵn và nộp câu trả lời của mình, quý thầy cô sẽ không thể rút lại sự tham gia của mình. Điều này là do bảng câu hỏi này không định danh và chúng tôi không thể xác định được bộ câu hỏi theo từng cá nhân.

Quý thầy cô có thể rút khỏi cuộc phỏng vấn trong khi đang phỏng vấn, hoặc bất kỳ lúc nào TRƯỚC khi dữ liệu phỏng vấn được chuyển sang giai đoạn phân tích bằng cách liên hệ với nghiên cứu viên (thông tin liên hệ ở cuối văn bản).

6. Điều gì có thể xảy ra với những thông tin mà tôi cung cấp?
trong quá trình phỏng vấn, giải băng, phân tích và trình bày dữ liệu. Vì vậy, thông tin cá nhân của quý thầy cô hoàn toàn được bảo mật.
Tất cả những thông tin thu thập được từ quý thầy cô sẽ chỉ được dùng cho mục đích nghiên cứu. Theo quy định hiện hành, những thông tin này sẽ được lưu trữ ít nhất 5 năm, sau đó sẽ được tiêu hủy. Thông tin sẽ được lưu trữ một cách bảo mật (trong tủ hồ sơ có khóa, và trong các máy tính có mã bảo mật tại trường Điều Dưỡng và Hộ Sinh, Đại học Deakin, Úc). Không có thông tin đánh nào sẽ được sử dụng khi công bố và trình bày kết quả nghiên cứu.

7. Làm thế nào tôi có thể tiếp cận được kết quả nghiên cứu?
Sau khi dự án nghiên cứu này hoàn tất, một bản tóm tắt và báo cáo kết quả sẽ được gửi đến các trường, viện và cơ quan liên quan trong nghiên cứu này. Nếu quý thầy cô yêu cầu, một bản sao của kết quả dự án cũng sẽ được gửi đến quý thầy cô qua email. Kết quả sau cùng sẽ được trình bày trong một luận văn tiến sĩ, được công bố trên các tạp chí chuyên môn và được báo cáo tại các hội thảo điều dưỡng.

8. Ai đã kiểm duyệt dự án nghiên cứu này?
- Tất cả các nghiên cứu tại Úc có sự tham gia của con người đều chịu sự kiểm duyệt của một nhóm cá nhân độc lập, gọi là Hội Đồng Đạo Đức Nghiên Cứu Con Người (HREC).
- Các khía cạnh về đạo đức của dự án nghiên cứu này đã được xét duyệt bởi Hội Đồng Đạo Đức Nghiên Cứu Con Người thuộc Đại Học Deakin (DUHREC).

9. Thông tin chi tiết và liên hệ:
Nếu quý thầy cô cần thêm thông tin nào liên quan đến dự án nghiên cứu này, hoặc có vấn đề gì xảy ra khi tham gia dự án này, quý thầy cô có thể liên hệ một trong những người có tên sau đây:

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Điện thoại: +61 3 92446578</td>
<td>Email: <a href="mailto:Maxine.duke@deakin.edu.au">Maxine.duke@deakin.edu.au</a></td>
</tr>
<tr>
<td>Tiến sĩ Helen Forbes</td>
<td></td>
</tr>
<tr>
<td>Điện thoại: +61 3 92446129</td>
<td>Email: <a href="mailto:Helen.forbes@deakin.edu.au">Helen.forbes@deakin.edu.au</a></td>
</tr>
</tbody>
</table>
10. Bất đồng lợi ích:
Không có bất đồng lợi ích nào giữa các nghiên cứu viên và những cá nhân sẽ tham gia trong việc thực hiện nghiên cứu này.

11. Phản ánh:
Nếu quý thầy cô có nhu cầu phản nàn về bất kỳ khía cạnh nào của dự án này, việc thực hiện dự án hoặc thắc mắc về quyền hạn của người tham gia nghiên cứu, quý thầy cô có thể liên hệ:
Bộ phận quản lý chất lượng nghiên cứu, Đại học Deakin, 221 Burwood Highway, Burwood Victoria 3125, điện thoại: +61 3 9251 7129, email: research-ethics@deakin.edu.au. Vui lòng trích dẫn số dự án [HEAG-103_2014].
Appendix 5 – Author consent for instrument adaptation

Re: Asking for your permission to use your NESAA tool

liserrals@sudderlink.net
Sat 14/06/2014 1:46 AM
To: VAN NGUYEN <rnin@deakin.edu.au>

Dear Van Nguyen,

What an exciting study! Of course you have my permission to use the NESAA tool. Please let me know if you have any questions or concerns as you begin your research. Please let me know if you feel you need to change anything beyond the demographics.

Good luck!
Lisa Ramsburg

--- VAN NGUYEN <rnin@deakin.edu.au> wrote
> Dear Dr. Ramsburg,
> 
> I am Ngoc Bich Van Nguyen, who previously contacted you about the NESAA tool as an important reference for my study. I once again thank you very much for the interesting article (Ramsburg and Childress, 2012) and your tool development.
>
> I am emailing you again to ask for your permission to use your NESAA tool in my PhD study about clinical nursing education. The study is titled as “the difference in perceived competence and confidence to teach clinical nursing among nurse educators in Vietnam”, supervised by Professor Maxine Duke and Doctor Helen Forbes from Deakin University, Australia.
>
> As demonstrated by the title, the investigation targets to clinical nurse educators rather than general nurse educators, and to explore their clinical teaching skill acquisitions. Thus, if you consent, the NESAA tool will be modified and added some demographic questions to reflect the focus of our study. The tool will be piloted in Vietnamese nurse educator population prior to the main data collection.
>
> I hope that you agree to allow me to use your tool in my study and I look forward to your ideas about this.
>
> Thanks and kind regards,
>
> Ngoc Bich Van Nguyen
> H300 Student
> School of Nursing and Midwifery, Deakin University
> Office: Y2.10, Melbourne Burwood Campus
> Email: rbin@deakin.edu.au
> Phone: (+61) (3) 92517385
Appendix 6 – The Nurse Educator Skill Acquisition Assessment (NESAA) Tool (Ramsburg & Childress, 2012)

<table>
<thead>
<tr>
<th>Nurse Educator Skill Acquisition Assessment Tool</th>
</tr>
</thead>
<tbody>
<tr>
<td>Please indicate your level of confidence with the following activities by circling the appropriate number.</td>
</tr>
<tr>
<td>Rate your level of confidence:</td>
</tr>
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<td>5 – High level of confidence</td>
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<tr>
<td>1. Identify essential course/clinical content that meets course objectives</td>
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<td>2. Conduct class/clinical experiences that effectively impart nursing knowledge</td>
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<td>3. Understand how course content meets curriculum objectives</td>
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<td>4. Develop a plan to assist individual students in academic difficulty</td>
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<td>5. Develop innovative programs for student success and retention</td>
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<td>6. Identify your own teaching style</td>
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<td>7. Discriminate between different teaching and learning styles</td>
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<td>8. Understand how your own teaching style contributes to curricular outcomes</td>
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<td>9. Alter teaching style to accommodate learning styles</td>
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<tr>
<td>10. Design new teaching strategies</td>
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<td>11. Identify basic assessment/evaluation strategies</td>
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<td>12. Choose effective assessment/evaluation strategies</td>
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<td>13. Construct and analyze multiple choice test items</td>
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<tr>
<td>14. Alter assessment/evaluation strategies based on test analysis</td>
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<td>15. Design new assessment / evaluation strategies</td>
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<tr>
<td>16. Identify overall curriculum design</td>
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<td>17. Understand different curricular components</td>
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<td>18. Participate in program evaluation</td>
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<td>19. Suggest changes to your program evaluation process</td>
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<td>20. Design innovative curriculums to improve nursing education</td>
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<tr>
<td>21. Identify your own leadership style</td>
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<td>22. Understand how your personal style may be used effectively to promote change.</td>
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<tr>
<td>23. Implement strategies for organizational change</td>
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<td>24. Function as a leader in your parent institution</td>
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<td>25. Lead interdisciplinary efforts to address healthcare and educational needs regionally, nationally, and internationally</td>
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<td>26. Identify personal professional development needs</td>
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<td>27. Participate in professional development activities to meet personal goals</td>
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<td>28. Demonstrate improvement of performance based on professional development, self-reflection, and experience</td>
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<td>29. Balance teaching, scholarship, and service</td>
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<td>30. Serve as a mentor</td>
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<td>31. Use teaching content/strategies passed down from a peer or mentor</td>
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<td>32. Use available literature to plan teaching/learning activities</td>
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<td>33. Participate as a team member in scholarly activities; demonstrate effective proposal writing</td>
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<td>34. Design and conduct research</td>
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<td>35. Disseminate information locally, nationally, and/or internationally to enhance nursing education</td>
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<tr>
<td>36. Determine your own professional goals</td>
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<td>37. Identify social, economic, political, and institutional forces that influence higher education</td>
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<td>39. Build organizational climate using respect, collegiality, professionalism, and caring</td>
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<td>40. Advocate for nursing in the political arena</td>
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</table>

Developed by Lisa Ramsburg, Ed.D, MSN, CNE 2010
Nurse Educator Skill Acquisition Assessment Tool

Scoring Instructions:
Score each statement and add up all 40 statements for a total skill acquisition score.
Score each competency domain by:
add the first 5 statements for competency domain 1 (Facilitate learning)
add 6 – 10 for competency domain 2 (Facilitate learner development and socialization)
add 11 – 15 for competency domain 3 (Use assessment and evaluation)
add 16 – 20 for competency domain 4 (Participate in curriculum design and evaluation of program)
add 21 – 25 for competency domain 5 (Function as a change agent and leader)
add 26 – 30 for competency domain 6 (pursue continuous quality improvement in the nurse educator role)
add 31 – 35 for competency domain 7 (Engage in scholarship)
add 36 – 40 for competency domain 8 (Function within the educational environment)

<table>
<thead>
<tr>
<th>Nurse Educator Skill Acquisition Assessment Tool Scoring Grid</th>
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<tbody>
<tr>
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<tr>
<td>Competency Statement Score</td>
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<tr>
<td>Competency Domain Score</td>
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<td>Total Skill Acquisition Score</td>
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</table>

Developed by Lisa Ramsburg, Ed.D, MSN, CNE 2010
Appendix 7 – Content of Survey I – English version

SURVEY TO CLINICAL NURSE EDUCATORS

Full Project Title: The differences in perceived confidence and competence to teach clinical nursing among nurse educators in Vietnam. 8

Principal researcher: Professor Maxine Duke
Student researcher: Ngoc Bich Van Nguyen
Associate researcher: Doctor Helen Forbes

Guideline to respondents

- The survey incorporates 2 parts: (A) Demographic and (B) Clinical Nurse Educator (CNE) Skill Acquisition Assessment Tool and may take you from 15-20 minutes.
- If you are currently working for more than one academic institute, the questions are about the place where you have spent most time of employment.
- If you have transferred from another institute, the questions are about your current employment.
- “Clinical practice experience” in this survey is referred to your working experience as a nurse, and does not include your clinical experience as a nursing student.
- Please note that your responses to the survey indicate your consent to participate in this research. Once you submit the responses, your participation cannot be withdraw as the survey is anonymous.

Abbreviation:
– Clinical nurse educator: CNE

THANK YOU FOR YOUR ATTENTION.

PLEASE TURN TO THE NEXT PAGE FOR SURVEY CONTENT.

8 The title of the thesis was later changed to “Measuring nurse educator confidence in clinical teaching competence”. The change was approved by the School of Nursing and Midwifery, Faculty of Health, Deakin University on 24/02/2016.
PART A: DEMOGRAPHIC

Please tick the answer that is most relevant to you.

1. Your age:
   - □ 20–25
   - □ 26–30
   - □ 31–35
   - □ 36–40
   - □ More than 40.

2. Your gender:
   - □ Male
   - □ Female
   - □ Other.

3. Your background:
   - □ Nursing
   - □ Medicine
   - □ Other (Please specify)
     ……………………………………………………………………………………………

4. Your highest qualifications (Multiple answers are accepted):
   - □ Collegial degree in nursing
   - □ Bachelor of Nursing
   - □ Masters of Nursing
   - □ Doctor of Nursing
   - □ Masters of health-related discipline
   - □ Bachelor or Masters of Medicine
   - □ Other (Please specify)
     ……………………………………………………………………………………………

5. How long have you been in the CNE’s role?
   - □ Less than 1 year
   - □ 1–2 years
   - □ 3–4 years
   - □ 4–5 years
   - □ 6–10 years.
☐ More than 10 years

6. How often do you work as a CNE in each placement?
   ☐ 5 days a week
   ☐ 3–4 days a week
   ☐ 2–3 days a week
   ☐ 1–2 days a week
   ☐ 5 half-days a week
   ☐ Other (Please specify)

7. In which course are you currently or often teaching as a CNE?
   ☐ Collegial nursing
   ☐ Bachelor of Nursing
   ☐ Both degrees
   ☐ Other (Please specify)

8. Are you currently or periodically active in the role of a nurse clinician?
   ☐ Yes (Please refer to question 9)
   ☐ No (Please skip question 9)

9. How often do you work as a nurse clinician?
   ☐ 5 days a week
   ☐ 3–4 days a week
   ☐ 2–3 days a week
   ☐ 1–2 days a week
   ☐ Periodically and depending on the schedule of the institute
   ☐ Other (Please specify)

10. What is the most frequent CNE-student ratio for each placement that you are responsible for?
    ☐ 1 CNE : less than 10 students
    ☐ 1 CNE : (11–15) students
    ☐ 1 CNE : (16–20) students
    ☐ 2 CNEs : (16–20) students
11. Describe your experience at the time you were recruited to become a CNE? (Multiple answers are accepted).

☐ Had less than 3 years of clinical practice experience
☐ Had more than 3 years of clinical practice experience
☐ Had no prior clinical practice experience
☐ Had less than 3 years of classroom-teaching experience
☐ Had more than 3 years of classroom-teaching experience
☐ Had no prior teaching experiences in nursing
☐ A new graduate of the Formal Bachelor of Nursing degree
☐ Other (Please specify).

…………………………………………………………………………………………

12. What preparation/orientation and support did you receive from your institute to take the role of a CNE?

☐ Educational course in general teaching skills
☐ Educational course in laboratory/preclinical teaching
☐ Workshops in clinical teaching skills
☐ Mentored by a senior CNE
☐ Guidelines
☐ Periodical micro-teaching with attendance of senior CNEs
☐ None
☐ Other (Please specify)

…………………………………………………………………………………………

13. How did you self-prepare for the role of a CNE? (Multiple answers are accepted).

☐ Completed an educational course in teaching
☐ Consulted with senior CNEs
☐ Requested help from managers at the workplaces
☐ None
☐ Other (Please specify)

…………………………………………………………………………………………
14. Please identify the three most effective activities that helped you to prepare for the CNE’s role?

15. Please list your area of clinical expertise or familiarity.

16. Please list names of placement that you have been allocated in the role of a CNE.

END OF PART A
PLEASE TURN TO THE NEXT PAGE FOR PART B
**PART B: Clinical Nurse Educator Skill Acquisition Assessment Tool ©**

*For each question, please tick 1 answer that best describes your experience of clinical teaching in nursing.*

<table>
<thead>
<tr>
<th>Clinical Nurse Educator Skill Acquisition Assessment Tool</th>
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<tbody>
<tr>
<td>Please indicate how confident you are in performing the</td>
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<td>following activities by circling the appropriate number.</td>
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<tr>
<td>Rate your level of confidence:</td>
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<td>1 – Low confidence</td>
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<td>2 – Moderately low level of confidence</td>
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<td>3 – Moderate confidence</td>
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<td>5 – High level of confidence</td>
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<tr>
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<th>Low Confidence</th>
<th>Moderately Low</th>
<th>Moderate Confidence</th>
<th>Moderately High</th>
<th>High Confidence</th>
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<tr>
<td>A. FACILITATE LEARNING</td>
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<td>1. Identifying essential clinical content that meets</td>
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<td>placement objectives.</td>
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<td>2. Organising clinical experiences that provide</td>
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<td>opportunities for nursing knowledge to be developed.</td>
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<td>3. Understanding how placement content meets</td>
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<td>curriculum objectives.</td>
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<td>4. Developing a plan to assist individual students in</td>
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<td>clinical learning difficulty.</td>
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<td>5. Developing innovative strategies for student success</td>
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<td>and retention.</td>
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<tr>
<th>B. FACILITATE LEARNER DEVELOPMENT AND SOCIALIZATION</th>
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<tr>
<td>6. Identifying your own clinical teaching style.</td>
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<tr>
<td>7. Discriminating between different teaching and</td>
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<td>learning styles in clinical settings.</td>
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<td>8. Understanding how your own clinical teaching style</td>
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<td>contributes to curricular outcomes.</td>
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<td>9. Altering clinical teaching style to accommodate</td>
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<td>student learning styles.</td>
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<td>10. Designing new clinical teaching strategies.</td>
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<tr>
<th>C. USE ASSESSMENT AND EVALUATION</th>
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<tr>
<td>11. Identifying basic assessment/evaluation strategies.</td>
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<tr>
<td>12. Choosing effective assessment/evaluation strategies in appropriate clinical settings.</td>
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<td>2</td>
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<td>13. Altering clinical assessment/evaluation strategies based on clinical performance.</td>
<td>1</td>
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<td>14. Designing new assessment/evaluation strategies for clinical environment.</td>
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**D. PARTICIPATE IN CURRICULUM DESIGN AND EVALUATION OF PROGRAM**

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<tr>
<td>15. Identifying overall curriculum design and clinical placement design.</td>
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<td>16. Understanding different curricular clinical components.</td>
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<td>17. Participating in clinical program evaluation.</td>
<td>1</td>
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<td>18. Suggesting changes to your clinical program evaluation process.</td>
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<td>19. Designing innovative clinical learning strategies to improve clinical nursing education.</td>
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**E. FUNCTION AS A CHANGE AGENT AND LEADER**

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<tr>
<td>20. Identifying your own leadership style in clinical environment.</td>
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<td>21. Understanding how your personal style may be used effectively to promote change.</td>
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<td>22. Functioning as a leader in your parent institution.</td>
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<td>23. Leading efforts to encourage interdisciplinary collaboration nationally, and internationally.</td>
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**F. PURSUE CONTINUOUS QUALITY IMPROVEMENT IN THE CLINICAL NURSE EDUCATOR ROLE**

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<tr>
<td>24. Identifying personal professional development needs.</td>
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<td>25. Participating in professional development activities to meet personal goals.</td>
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<td>26. Demonstrating improvement of clinical teaching performance based on professional development, self-reflection, and experience.</td>
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<td>27.</td>
<td>Balancing academic commitments (clinical teaching, classroom teaching, scholarship, and service).</td>
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<td>28.</td>
<td>Serving as a mentor to students, new clinical educators and/or nurses in clinical settings.</td>
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<td><strong>G. ENGAGE IN SCHOLARSHIP</strong></td>
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<td>29.</td>
<td>Using teaching content/strategies passed down from a peer or a mentor.</td>
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<td>30.</td>
<td>Using available clinical teaching knowledge to plan clinical teaching/learning activities.</td>
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<td>31.</td>
<td>Participating as a team member in scholarly activities and demonstrate effective proposal writing.</td>
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<td>32.</td>
<td>Attempting to participate in research conduct.</td>
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<td>33.</td>
<td>Disseminating information to enhance clinical teaching skills in nursing education.</td>
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<td><strong>H. FUNCTION WITHIN THE EDUCATIONAL ENVIRONMENT</strong></td>
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<td>34.</td>
<td>Determining your own professional goals.</td>
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<tr>
<td>35.</td>
<td>Identifying social, economic, political, and institutional forces that influence higher education.</td>
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<td>36.</td>
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<td>37.</td>
<td>Building organizational climate using respect, collegiality, professionalism, and caring.</td>
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<td>38.</td>
<td>Advocating for nursing in the political arena.</td>
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Developed by Lisa Ramsburg, Ed.D, MSN, CNE 2010

Modified by Van Nguyen, Maxine Duke and Helen Forbes 2014

**END OF THE SURVEY**

THANK YOU VERY MUCH FOR YOUR PARTICIPATION!

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BẢNG KHẢO SÁT
DÀNH CHO GIÁO VIÊN HƯỞNG DÂN LÀM SÀNG ĐIỀU DƯỠNG

Tên dự án: Sự khác biệt về sự tự tin và kỹ năng giảng dạy làm sàng của giảng viên điều dưỡng tại Việt Nam.

Nghiên cứu viên chính: Giáo sư Maxine Duke
Nghiên cứu sinh: Nguyễn Ngọc Bích Vân
Nghiên cứu viên phụ: Tiến sĩ Helen Forbes

Hướng dẫn dành cho người tham gia nghiên cứu

- Bảng khảo sát này gồm 2 phần: (A) Thông tin nền và (B) Bộ câu hỏi đánh giá sự phát triển kỹ năng giảng dạy của Giáo viên hướng dẫn làm sàng điều dường (GVHDLSDĐ). Thầy (cô) có thể cần 15-20 phút để hoàn tất bảng khảo sát này.

- Nếu thầy (cô) hiện đang làm việc tại hơn 1 đơn vị đào tạo thì bảng khảo sát này hướng đến những trải nghiệm của thầy (cô) tại cơ quan chính mà mình dành nhiều thời gian để làm việc nhất.

- Nếu thầy (cô) vừa mới chuyển công tác từ một trường hoặc viện nào khác thì bảng khảo sát này hướng đến những trải nghiệm của quý thầy (cô) tại cơ quan hiện tại mà mình đang làm việc.

- Cụm từ “kinh nghiệm thực hành làm sàng” trong bảng khảo sát này được dùng để chỉ kinh nghiệm mà thầy (cô) làm việc như một điều dưỡng tại bệnh viện, và không bao gồm những kinh nghiệm thực hành của một sinh viên điều dưỡng trước khi tốt nghiệp.

- Vui lòng lưu ý rằng câu trả lời của thầy (cô) đồng nghĩa với việc thể hiện sự đồng ý tham gia nghiên cứu. Vì bảng khảo sát này không định danh nên một
khi nộp câu trả lời của mình, thầy (cô) không thể rút lại sự tham gia của mình.

- Từ viết tắt:
  - Giáo viên hướng dẫn lâm sàng điều dưỡng: GVHDLsDD

TRÁN TRỌNG CẢM ƠN SƯ' CHÚ Ý CỦA QUÝ THẦY (CÔ). QUÝ THẦY CÔ VUI LÒNG LẤT SANG TRANG SAU ĐỂ HOÀN TẤT BẢNG KHẢO SÁT.
PHẦN A: Thông tin nền
Quý thầy (cô) vui lòng đánh dấu dấu X chọn câu trả lời phù hợp nhất với mình.

1. Tuổi:
   □ 20–25
   □ 26–30
   □ 31–35
   □ 36–40
   □ Trên 40.

2. Giới tính:
   □ Nam
   □ Nữ
   □ Khác

3. Trình độ chuyên môn:
   □ Điều dưỡng
   □ Y Khoa
   □ Khác (Vui lòng ghi rõ)

4. Bằng cấp cao nhất của thầy (cô) (Có thể chọn nhiều câu trả lời):
   □ Cao đẳng điều dưỡng
   □ Cử nhân điều dưỡng
   □ Thạc sĩ điều dưỡng
   □ Tiến sĩ điều dưỡng
   □ Thạc sĩ một chuyên ngành khác thuộc khối ngành y
   □ Bác sĩ hoặc thạc sĩ y khoa
   □ Khác (Vui lòng ghi rõ)

5. Số năm kinh nghiệm của thầy (cô) trong vai trò GVHDLSDDD?
   □ Dưới 1 năm
   □ 1–2 năm
   □ 3–4 năm
   □ 4–5 năm
   □ 6–10 năm
   □ Hơn 10 năm

6. Thời gian giảng dạy của thầy (cô) tại bệnh viện trong mỗi đợt thực hành làm sàng?
   □ 5 ngày/tuần
   □ 3–4 ngày/tuần
7. Thầy (cô) đang hoặc thường xuyên giảng dạy làm sàng trong chương trình điều dưỡng nào nhất?
- Cao đẳng điều dưỡng
- Cử nhân điều dưỡng
- Cả hai chương trình
- Khác (vui lòng ghi rõ)

8. Thầy (cô) có đang hoặc định kỳ thực hành trong vai trò của 1 điều dưỡng viên không?
- Có (Vui lòng trả lời tiếp câu hỏi 9)
- Không (Vui lòng bỏ qua câu hỏi 9)

9. Mức độ thường xuyên mà thầy (cô) thực hành như 1 điều dưỡng viên?
- 5 ngày/tuần
- 3-4 ngày/tuần
- 2-3 ngày/tuần
- 1-2 ngày/tuần
- Định kỳ và phụ thuộc vào thời gian biểu tại cơ quan đang công tác
- Khác (vui lòng ghi rõ)

10. Tỉ số giữa GVHDLSDD và sinh viên điều dưỡng nào dưới đây mà thầy (cô) thường xuyên phụ trách trong các đợt thực hành làm sàng nhất?
- 1 GVHDLSDD : dưới 10 sinh viên
- 1 GVHDLSDD : (11–15) sinh viên
- 1 GVHDLSDD : (16–20) sinh viên
- 2 GVHDLSDD : (16–20) sinh viên
- Khác (vui lòng ghi rõ)

11. Vui lòng mô tả kinh nghiệm của thầy (cô) tại thời điểm được tuyển dụng hoặc bất đầu đảm nhận vai trò của một GVHDLSDD (Có thể chọn nhiều câu trả lời).
- Đã có dưới 3 năm kinh nghiệm thực hành làm sàng
- Đã có trên 3 năm kinh nghiệm thực hành làm sàng
- Chưa có kinh nghiệm thực hành làm sàng
- Đã có dưới 3 năm kinh nghiệm giảng dạy lý thuyết điều dưỡng
Đã có trên 3 năm kinh nghiệm giảng dạy lý thuyết điều dưỡng
Chưa có kinh nghiệm giảng dạy lý thuyết trước đó
Là một điều dưỡng mới tốt nghiệp chương trình cử nhân điều dưỡng hệ chính quy
Khác (vui lòng ghi rõ)

12. Thầy (cô) đã nhận được sự chuẩn bị, hỗ trợ hoặc chương trình định hướng nào từ cơ quan của mình để đảm nhận vai trò GVHDLSĐD? (Có thể chọn nhiều câu trả lời).
- Khóa học về kỹ năng sư phạm
- Khóa học về kỹ năng giảng dạy thực hành trong phòng tiền lâm sàng.
- Các buổi hội thảo về kỹ năng giảng dạy lâm sàng
- Được hướng dẫn bởi một GVHDLSĐD khác có kinh nghiệm lâu năm
- Các bản hướng dẫn
- Thực hiện các buổi giảng thử định kỳ với sự tham gia của các GVHDLSDD có kinh nghiệm.
- Thực hành trên lâm sàng từ 1-2 năm trước khi giảng dạy
- Không có
- Khác (vui lòng ghi rõ)

13. Thầy (cô) đã tự trang bị cho mình kỹ năng để trở thành một GVHDLSDD như thế nào? (Có thể chọn nhiều câu trả lời).
- Tự tìm kiếm và tham gia khóa học về kỹ năng sư phạm
- Tham vấn với các GVHDLSDD khác có kinh nghiệm lâu năm
- Tìm kiếm sự giúp đỡ từ người quản lý tại đơn vị của mình
- Thực hành trên lâm sàng từ 1-2 năm trước khi giảng dạy
- Không có
- Khác (vui lòng ghi rõ)

14. Vui lòng liệt kê 3 hoạt động nào đã giúp ích cho thầy (cô) nhiều nhất trong việc chuẩn bị cho vai trò GVHDLSDD?

15. Vui lòng liệt kê lĩnh vực lâm sàng chuyên môn hoặc quen thuộc nhất của thầy (cô).

16. Vui lòng liệt kê tên của các khoa lâm sàng mà thầy (cô) đã được bổ nhiệm giảng dạy lâm sàng cho sinh viên?
HẾT PHẦN A. QUÝ THẦY CÔ VUI LÒNG LẤT SANG TRANG SAU ĐỂ HOÀN TẤT PHẦN B.
PHẦN B:
Bộ câu hỏi đánh giá sự phát triển kỹ năng giảng dạy của GVHDLSDĐ

Đối với mỗi câu hỏi, vui lòng chọn 1 câu trả lời phù hợp nhất để mô tả kinh nghiệm của thầy cô trong việc giảng dạy lâm sàng điều dưỡng.

<table>
<thead>
<tr>
<th>Bộ câu hỏi đánh giá sự phát triển kỹ năng giảng dạy của GVHDLSDĐ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vui lòng chỉ rõ mức độ tự tin của thầy (cô) khi thực hiện những hoạt động sau bằng cách khoanh tròn câu trả lời phù hợp nhất.</td>
</tr>
</tbody>
</table>

Đánh giá mức độ tự tin:
1 - Mức độ tự tin thấp
2 - Mức độ tự tin trung bình thấp
3 - Mức độ tự tin trung bình
4 - Mức độ tự tin trung bình cao
5 - Mức độ tự tin cao

<table>
<thead>
<tr>
<th>A. THỰC ĐÀY VIỆC HỌC TẬP CỦA SINH VIÊN</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Xác định những nội dung làm sáng cánh thiết nhằm đáp ứng mục tiêu của đợt thực hành.</td>
</tr>
<tr>
<td>2. Tổ chức những tình huống làm sáng nhằm tạo ra những cơ hội để sinh viên phát triển kiến thức điều dưỡng.</td>
</tr>
<tr>
<td>3. Hiểu rõ nội dung của đợt thực hành đáp ứng mục tiêu của chương trình điều dưỡng như thế nào.</td>
</tr>
<tr>
<td>4. Lên kế hoạch để hỗ trợ từng cá nhân sinh viên gặp khó khăn trong việc học tập trên lâm sàng.</td>
</tr>
<tr>
<td>5. Phát triển những phương pháp mới giúp sinh viên thành công và ở lại với nghề.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B. THỰC ĐẨY SỰ PHÁT TRIỂN VÀ QUÁ TRÌNH HOÀNH NẤP CỦA NGƯỜI HỌC</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. Xác định được phong cách giảng dạy lâm sàng của mình.</td>
</tr>
<tr>
<td>7. Phân biệt được những hình thức giảng dạy và học tập khác nhau ở môi trường lâm sàng.</td>
</tr>
<tr>
<td>8. Hiểu rõ làm thế nào hình thức giảng dạy của mình có thể tác động đến kết quả của chương trình kinh nghiệm.</td>
</tr>
<tr>
<td>9. Điều chỉnh cách giảng dạy lâm sàng của mình để phù hợp với cách học tập của sinh viên.</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>10. Thiết kế những phương pháp giảng dạy làm sàng mới</td>
</tr>
<tr>
<td><strong>C. SỬ DỤNG CÁC PHƯƠNG PHÁP LƯUONG GIA VÀ ĐÁNH GIÁ</strong></td>
</tr>
<tr>
<td>11. Xác định những phương pháp lưu lượng gia hoặc đánh giá cơ bản.</td>
</tr>
<tr>
<td>12. Chọn lựa những phương pháp lưu lượng gia hoặc đánh giá hiệu quả trong những môi trường làm sàng phù hợp.</td>
</tr>
<tr>
<td>13. Điều chỉnh phương pháp lưu lượng gia hoặc đánh giá dựa trên việc phân tích tình huống làm sàng.</td>
</tr>
<tr>
<td>14. Thiết kế những phương pháp lưu lượng gia hoặc đánh giá mới cho việc giảng dạy làm sàng.</td>
</tr>
<tr>
<td><strong>D. THAM GIA VÀO VIỆC THIẾT KẾ CHƯƠNG TRÌNH KHUNG VÀ CHƯƠNG TRÌNH ĐÁNH GIÁ</strong></td>
</tr>
<tr>
<td>15. Hiểu rõ từng thể chương trình khung và chương trình thực hành làm sàng.</td>
</tr>
<tr>
<td>16. Hiểu rõ các học phần thực hành làm sàng khác nhau trong chương trình đào tạo.</td>
</tr>
<tr>
<td>17. Tham gia vào việc đánh giá chương trình thực hành làm sàng.</td>
</tr>
<tr>
<td>18. Kiến nghị những thay đổi trong quá trình đánh giá chương trình thực hành làm sàng.</td>
</tr>
<tr>
<td>19. Thiết kế những phương pháp giảng dạy mới nhằm cải thiện chương trình giảng dạy làm sàng điều dưỡng.</td>
</tr>
<tr>
<td><strong>E. HOẠT ĐỘNG NHƯ MỘT NGƯỜI CÔ TÔ CHẤT LẠNH BẢO VÀ MỘT NHÂN TÔ THAY ĐỔI</strong></td>
</tr>
<tr>
<td>20. Xác định tác phong lãnh đạo của mình trong môi trường làm sàng.</td>
</tr>
<tr>
<td>21. Hiểu rõ ràng tác phong cá nhân của mình có thể áp dụng một cách hiệu quả để thúc đẩy sự thay đổi trong môi trường giáo dục.</td>
</tr>
<tr>
<td>22. Hoạt động như một người có tổ chức lãnh đạo tại cơ quan chủ quản của mình.</td>
</tr>
<tr>
<td>23. Nỗ lực khuyến khích việc hợp tác liên ngành ở nhiều cấp độ, bao gồm cả cấp độ quốc gia và quốc tế.</td>
</tr>
<tr>
<td>24. Xác định nhu cầu phát triển nghề nghiệp của bản thân.</td>
</tr>
<tr>
<td>25. Tham gia vào những hoạt động phát triển nghề nghiệp để đáp ứng nhu cầu về nghề nghiệp của bản thân.</td>
</tr>
<tr>
<td>26. Thực hiện sự tiến bộ trong kỹ năng giảng dạy làm sáng suốt trong quá trình tự nhận xét, tự phản hồi, những trải nghiệm của bản thân mình và sự phát triển nghề nghiệp của bản thân.</td>
</tr>
<tr>
<td>27. Cán bằng bản thân giữa các vai trò chuyên môn (giảng dạy làm sáng, giảng dạy lý thuyết, nghiên cứu và thực hành tại bệnh viện).</td>
</tr>
<tr>
<td>28. Thực hiện vai trò người hướng dẫn cho sinh viên, cho các GVHDSLĐĐ mới hoặc cho các điều dưỡng mới trong môi trường làm sàng.</td>
</tr>
<tr>
<td>G. THAM GIA VÀO HỌC THUẬT</td>
</tr>
<tr>
<td>29. Sử dụng nội dung hoặc các phương pháp giảng dạy đã được áp dụng thành công từ một dòng nghiệp hoặc từ người hướng dẫn.</td>
</tr>
<tr>
<td>30. Sử dụng những kiến thức và giảng dạy làm sáng có sẵn để lên kế hoạch cho các hoạt động giảng dạy và học tập trên làm sáng.</td>
</tr>
<tr>
<td>31. Tham gia như một thành viên trong những hoạt động học thuật và thể hiện kỹ năng viết để tương nghiên cứu hiệu quả.</td>
</tr>
<tr>
<td>32. Nỗ lực tham gia vào việc thực hiện nghiên cứu.</td>
</tr>
<tr>
<td>33. Phổ biến thông tin nhằm nâng cao kỹ năng giảng dạy làm sáng điều dưỡng.</td>
</tr>
</tbody>
</table>

Xây dựng bởi Lisa Ramsburg, Ed.D, MSN, CNE 2010
Hiệu chỉnh bởi Van Nguyen, Maxine Duke và Helen Forbes 2014 10

KẾT THÚC BẢNG KHẢO SÁT - TRÁN TRỌNG CÂM ON QUÝ THÀY CÔ!

10 Bản quyền của bảng câu hỏi này thuộc về tác giả. Việc sử dụng hoặc hiệu chỉnh bảng câu hỏi này cần thông qua tác giả chính.
Appendix 9 – Content of Survey II – English version

SURVEY TO CLINICAL NURSE EDUCATORS

Full Project Title: The differences in perceived confidence and competence to teach clinical nursing among nurse educators in Vietnam. ¹¹

Principal researcher: Professor Maxine Duke
Student researcher: Ngoc Bich Van Nguyen
Associate researcher: Doctor Helen Forbes

Guideline to respondents

- This survey includes 2 parts: (A) Demographic and (B) Clinical Nurse Educator (CNE) Skill Acquisition Assessment Tool. The survey will take you approximately 10–15 minutes.
- If you are currently working for more than one academic institute the questions are about the place where you have spent most time employed as a CNE.
- If you have transferred from another institute, the questions are about your current employment.
- Please note that the completion of the survey indicates consent to participate in this research. Once you submit the responses, your participation cannot be withdrawn as the survey is anonymous.
- Abbreviation:
  – Clinical nurse educator: CNE

THANK YOU FOR YOUR ATTENTION
PLEASE TURN TO THE NEXT PAGE FOR SURVEY CONTENT.

¹¹ The title of the thesis was later changed to “Measuring nurse educator confidence in clinical teaching competence”. The change was approved by the School of Nursing and Midwifery, Faculty of Health, Deakin University on 24/02/2016.
Part A: Background information

Please tick the box or write the answer that is most relevant to you.

1. Your age:
   (Please specify)
   ...........................................................................................................................

2. Your gender:
   □ Male
   □ Female
   □ Other.

3. Your background:
   □ Nursing
   □ Medicine
   □ Other (Please specify)
   ...........................................................................................................................

4. Your highest qualifications (Multiple answers are accepted):
   □ Collegial degree of nursing
   □ Bachelor of Nursing
   □ Masters of Nursing
   □ Doctor of Philosophy in Nursing
   □ Masters of health-related discipline
   □ Bachelor or Masters of Medicine
   □ Other (Please specify)
   ...........................................................................................................................

5. How many years have you been in the CNE’s role?
   (Please specify)
   ...........................................................................................................................

6. How many days a week do you supervise as a CNE?
   □ 1 day/week
   □ 2 days/week
   □ 3 days/week
   □ 4 days/week
   □ 5 half-days/week
   □ 5 days a week

7. In which course are you currently or often teaching as a CNE?
   □ Collegial degree of nursing
   □ Bachelor of Nursing
8. How often do you work AS A NURSE CLINICIAN?
- Currently not active in the role of a nurse clinician
- Periodically and depending on the schedule of the institute
- 1 day/week
- 2 days/week
- 3 days/week
- 4 days/week
- 5 days/week

9. What is the MOST FREQUENT student-educator ratio that you are responsible for?
- 1 CNE : less than 10 students
- 1 CNE : (11–15) students
- 1 CNE : (16–20) students
- 1 CNE : (21–25) students
- 2 CNEs : (16–20) students
- Other (Please specify)

10. Describe yourself AT THE TIME YOU WERE RECRUITED to become a CNE? (Multiple answers are accepted).
- A new graduate of the Bachelor of Nursing degree
- A new graduate of the Collegial degree of nursing
- An experienced clinician
- An experienced nurse educator
- An inexperienced clinician
- An inexperienced nurse educator

11. What kind of experience did you have BEFORE RECRUITMENT to the current institution?
- Classroom teaching in nursing
  Please specify number of months/years

- Clinical teaching in nursing
  Please specify number of months/years

- Clinical practice experience as a nurse clinician
  Please specify number of months/years

12. What preparation and support did you receive FROM YOUR INSTITUTION to take the CNE role? (Multiple answers are accepted)
- Educational course in general teaching skills
- Educational course in laboratory/preclinical teaching
13. How did you self-prepare for the role of a CNE? (Multiple answers are accepted).
- Completed an educational course in teaching
- Consulted with senior CNEs
- Requested help from institute managers at the workplaces
- Undertook no self-preparation for the role
- Other (Please specify)

14. What are three most effective activities that helped you to prepare for the CNE’s role?

15. What is your area of clinical experience/expertise?

16. Please list the clinical areas where you have supervised nursing students.

17. What further preparation and support do you need (if any) from your institution?

END OF PART A.
PLEASE TURN TO THE NEXT PAGE FOR PART B
### CLINICAL NURSE EDUCATOR SKILL ACQUISITION ASSESSMENT TOOL

Please circle **one** number as illustrated below to rate your **level of confidence**.

*Not confident at all* 0 1 2 3 4 5 6 7 8 9 *Extremely confident*

---

**Please rate how confident are you in:**

<table>
<thead>
<tr>
<th></th>
<th>Designing new teaching strategies to improve quality of clinical education.</th>
<th>0 1 2 3 4 5 6 7 8 9</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Designing learning opportunities to facilitate student socialization to clinical setting.</td>
<td>0 1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>3</td>
<td>Selecting appropriate teaching strategies to facilitate effective student leaning.</td>
<td>0 1 2 3 4 5 6 7 8 9</td>
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<td>4</td>
<td>Developing a plan to assist students who have clinical learning difficulties.</td>
<td>0 1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>5</td>
<td>Selecting assessment strategies that are effective and appropriate to different clinical situations.</td>
<td>0 1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>6</td>
<td>Providing timely and constructive feedback to students in clinical settings.</td>
<td>0 1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>7</td>
<td>Using assessment and evaluation data to enhance the clinical teaching-learning process.</td>
<td>0 1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>8</td>
<td>Understanding the links between different clinical placements within the course curriculum.</td>
<td>0 1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>9</td>
<td>Understanding overall curriculum design and clinical placement design.</td>
<td>0 1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>10</td>
<td>Understanding how clinical placement objectives meet curriculum objectives.</td>
<td>0 1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>11</td>
<td>Identifying teaching opportunities that meet clinical placement objectives.</td>
<td>0 1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>12</td>
<td>Using evidence and clinical knowledge to plan clinical teaching/learning activities.</td>
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<tr>
<td>13</td>
<td>Participating in scholarly activities as a team member</td>
<td>0 1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>14</td>
<td>Designing and implementing research in the area of expertise.</td>
<td>0 1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>15</td>
<td>Disseminating new information about nursing practice and education to colleagues and students.</td>
<td>0 1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>16</td>
<td>Collaborating to influence development of nursing within academic and clinical settings.</td>
<td>0 1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>17</td>
<td>Identifying own leadership style as a CNE.</td>
<td>0 1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>18</td>
<td>Serving as a mentor to students, new clinical educators and/or new nurses in clinical settings.</td>
<td>0 1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>19</td>
<td>Balancing academic commitments (clinical teaching, classroom teaching, scholarship and clinical practice).</td>
<td>0 1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>20</td>
<td>Building the climate of respect, collegiality, professionalism, courage and caring within your institution and clinical settings.</td>
<td>0 1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>21</td>
<td>Promoting change in clinical nursing education.</td>
<td>0 1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>22</td>
<td>Identifying your own professional development needs.</td>
<td>0 1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>23</td>
<td>Participating in professional development activities to meet your personal goals.</td>
<td>0 1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>24</td>
<td>Demonstrating improvement of clinical teaching performance based on self-reflection, experience and long-life learning.</td>
<td>0 1 2 3 4 5 6 7 8 9</td>
</tr>
</tbody>
</table>

Developed and validated by Van Nguyen, Maxine Duke and Helen Forbes, 2014 ©

END OF SURVEY
THANK YOU VERY MUCH FOR YOUR PARTICIPATION!

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BẢNG KHẢO SÁT
DÀNH CHO GIÁO VIÊN HƯỞNG DẠN LÂM SÀNG ĐIỀU ĐƯỜNG

Tên dự án: Sự khác biệt về sự tự tin và kỹ năng giảng dạy lâm sàng của giảng viên điều dưỡng tại Việt Nam.

Nghiên cứu viên chính: Giáo sư Maxine Duke
Nghiên cứu sinh: Nguyễn Ngọc Bích Vân
Nghiên cứu viên phụ: Tiến sĩ Helen Forbes

Hướng dẫn dành cho người tham gia khảo sát

- Bảng khảo sát gồm 2 phần: (A) Thông tin cơ bản và (B) Bộ câu hỏi đánh giá sự phát triển kỹ năng giảng dạy của Giáo viên hướng dẫn điều dưỡng (GVHDLSĐD). Thầy/cô có thể cần 10-15 phút để trả lời bảng khảo sát này.

- Nếu thầy/cô hiện đang làm việc tại nhiều đơn vị đào tạo: bảng khảo sát này hướng đến những trải nghiệm của thầy/cô tại cơ quan chính mà mình dành nhiều thời gian làm việc trong vai trò GVHDLSĐD nhất.

- Nếu thầy/cô vừa mới chuyển công tác từ một đơn vị khác: bảng khảo sát này hướng đến những trải nghiệm của quý thầy/cô tại cơ quan hiện tại mà mình đang làm việc.

- Câu trả lời của thầy/cô đồng nghĩa với việc thể hiện sự đồng ý tham gia nghiên cứu. Bảng khảo sát này không định danh, do đó thầy/cô không thể rút lại sự tham gia của mình sau khi nộp câu trả lời.

- Từ viết tắt: - Giáo viên hướng dẫn lâm sàng điều dưỡng: GVHDLSĐD

QUY THÁY/CÔ VUI LÒNG LẠT TRANG SAU ĐỂ HOÀN TẤT BẢNG KHẢO SÁT.
Phần A: Thông tin cơ bản
Thầy/cô vui lòng chọn câu trả lời phù hợp nhất với mình.

1. Tuổi:
   Vui lòng ghi rõ
   
2. Giới tính:
   □ Nam
   □ Nữ
   □ Khác

3. Lĩnh vực chuyên môn:
   □ Điều dưỡng
   □ Y Khoa
   □ Khác (Vui lòng ghi rõ)

4. Bằng cấp cao nhất của thầy/cô (Có thể chọn nhiều câu trả lời):
   □ Cao đẳng điều dưỡng
   □ Cử nhân điều dưỡng
   □ Thạc sĩ điều dưỡng
   □ Tiến sĩ điều dưỡng
   □ Bác sĩ hoặc thạc sĩ y khoa
   □ Thạc sĩ một chuyên ngành khác thuộc khối ngành y
   □ Khác (Vui lòng ghi rõ)

5. Số năm kinh nghiệm của thầy/cô trong vai trò GVHDSLĐD?
   Vui lòng ghi rõ

6. Thời gian giảng dạy mỗi tuần của thầy/cô tại bệnh viện?
   □ 1 ngày/tuần
   □ 2 ngày/tuần
   □ 3 ngày/tuần
   □ 4 ngày/tuần
   □ 5 buổi/tuần
   □ 5 ngày/tuần

7. Thầy/cô đang (hoặc thường xuyên) giảng dạy làm sàng trong chương trình nào nhất?
   □ Cao đẳng điều dưỡng
   □ Cử nhân điều dưỡng
   □ Thạc sĩ điều dưỡng
   □ Các hai chương trình

8. Mức độ thường xuyên mà thầy/cô đang thực hành như 1 điều dưỡng viên?
   □ Hiến không tham gia thực hành trong vai trò 1 điều dưỡng viên
9. Ti số giữa GVHĐLSĐD và sinh viên điều dưỡng nào dưới đây mà thầy/cô thường xuyên phụ trách nhất?
- 1 GVHĐLSĐD: dưới 10 sinh viên
- 1 GVHĐLSĐD: (11–15) sinh viên
- 1 GVHĐLSĐD: (16–20) sinh viên
- 1 GVHĐLSĐD: (21–25) sinh viên
- 2 GVHĐLSĐD: (16–20) sinh viên
- Khác (vui lòng ghi rõ)

10. Vui lòng mô tả thầy/cô TẠI THỜI ĐIỂM ĐƯỢC TUYỂN DỤNG hoặc lúc bắt đầu đảm nhận vai trò của GVHĐLSĐD (Có thể chọn nhiều câu trả lời).
- Là một điều dưỡng mới tốt nghiệp chương trình cử nhân điều dưỡng
- Là một điều dưỡng mới tốt nghiệp chương trình cao đẳng điều dưỡng
- Là một điều dưỡng nhiều kinh nghiệm
- Là một giáo viên điều dưỡng nhiều kinh nghiệm
- Là một điều dưỡng chưa có kinh nghiệm
- Là một giáo viên điều dưỡng chưa có kinh nghiệm

11. Mô tả kinh nghiệm mà thầy/cô đã có trước khi được tuyển dụng vào cơ quan hiện tại (Có thể chọn nhiều câu trả lời):
- Kinh nghiệm giảng dạy lý thuyết
  Vui lòng ghi rõ số năm/tháng: ..............................................
- Kinh nghiệm giảng dạy lâm sàng
  Vui lòng ghi rõ số năm/tháng: ..............................................
- Kinh nghiệm thực hành lâm sàng
  Vui lòng ghi rõ số năm/tháng: ..............................................

12. Thầy/cô đã nhận được sự chuẩn bị, hỗ trợ hoặc chương trình định hướng nào từ cơ quan của mình để đảm nhận vai trò GVHĐLSĐD? (Có thể chọn nhiều câu trả lời).
- Khóa học về kỹ năng sư phạm
- Khóa học về kỹ năng giảng dạy thực hành trong phòng tiền lâm sàng
- Các buổi hội thảo về kỹ năng giảng dạy lâm sàng
- Thời gian thực hành bắt buộc tại bệnh viện trước khi giảng dạy lâm sàng
- Thời gian thực hành bắt buộc tại bệnh viện cùng lúc với việc giảng dạy lâm sàng
- Được hướng dẫn bởi một GVHĐLSĐD khác có kinh nghiệm lâu năm
- Được cung cấp các bản hướng dẫn
13. Thầy/cô đã tự trang bị cho mình kỹ năng để trở thành một GVHDSLĐD như thế nào? (Có thể chọn nhiều câu trả lời).
- Tự tìm kiếm và tham gia khóa học về kỹ năng sư phạm
- Tham vấn với các GVHDSLĐD khác có kinh nghiệm lâu năm
- Tìm kiếm sự giúp đỡ từ người quản lý tại đơn vị của mình
- Không có
- Khác (vui lòng ghi rõ)

14. Vui lòng liệt kê 3 hoạt động nào đã giúp ích cho thầy/cô nhiều nhất trong việc chuẩn bị cho vai trò GVHDSLĐD?

15. Vui lòng liệt kê lĩnh vực làm sàng chuyên môn hoặc quen thuộc của thầy/cô.

16. Vui lòng liệt kê tên của các khoa làm sàng mà thầy/cô đã được bổ nhiệm giảng dạy làm sàng cho sinh viên?

17. Thầy/cô mong đợi được chuẩn bị hoặc hỗ trợ thêm như thế nào từ phía nhà trường (nếu có)?

HẾT PHẦN A.
THẦY/CÔ VUI LÒNG LẠT SANG TRANG SAU ĐỂ HOÀN TẤT PHẦN B.
Phần B:

<table>
<thead>
<tr>
<th>Số</th>
<th>Mục Đò Đánh Giá</th>
<th>Mô tả</th>
<th>Điểm</th>
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<td>1</td>
<td>1</td>
<td>Thiết kế phương pháp giảng dạy mới nhằm nâng cao chất lượng giảng dạy làm sàng.</td>
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<td>2</td>
<td>Thiết kế những tình huống học tập để thực hiện sự hòa nhập của sinh viên trong môi trường làm sàng.</td>
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<td>3</td>
<td>Lựa chọn phương pháp giảng dạy phù hợp để thúc đẩy việc học tập của sinh viên một cách hiệu quả.</td>
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<tr>
<td>4</td>
<td>4</td>
<td>Lên kế hoạch hỗ trợ các sinh viên có khó khăn trong quá trình thực hành trên làm sàng.</td>
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<td>5</td>
<td>Lựa chọn các phương pháp đánh giá phù hợp và hiệu quả cho các tình huống làm sàng khác nhau.</td>
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<td>6</td>
<td>Dựa ra các phân hối tích cực và kịp thời đối với sinh viên trên làm sàng.</td>
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<td>7</td>
<td>Sử dụng các dữ liệu lượng giác và đánh giá sinh viên để hỗ trợ quá trình dạy và học trên làm sàng.</td>
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<td>8</td>
<td>Hiểu rõ mối liên hệ giữa học phần làm sàng trong chương trình giảng dạy điều dưỡng.</td>
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<tr>
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<td>9</td>
<td>Hiểu rõ cấu trúc của các học phần làm sàng và cấu trúc tổng thể của chương trình giảng dạy điều dưỡng.</td>
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<td>10</td>
<td>Hiểu rõ làm thế nào mục tiêu của.dot thực hành làm sàng mà mình phụ trách đáp ứng được mục tiêu của khung chương trình.</td>
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<td>11</td>
<td>Xác định các cơ hội giảng dạy để đáp ứng được mục tiêu của dot thực hành làm sàng.</td>
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<td>Số</td>
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<td>0 1 2 3 4 5 6 7 8 9</td>
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<td>13</td>
<td>Tham gia vào các hoạt động học thuật như một thành viên nhóm.</td>
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<td>14</td>
<td>0 1 2 3 4 5 6 7 8 9</td>
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<tr>
<td>15</td>
<td>Thiết kế và tiến hành nghiên cứu trong lĩnh vực chuyên môn.</td>
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<tr>
<td>16</td>
<td>0 1 2 3 4 5 6 7 8 9</td>
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<tr>
<td>17</td>
<td>Hợp tác để thúc đẩy sự phát triển của điều hướng trên làm sáng và trong môi trường học thuật.</td>
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<td>18</td>
<td>0 1 2 3 4 5 6 7 8 9</td>
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<td>19</td>
<td>Xác định phong cách lãnh đạo của bản thân trong vai trò một GVDLSDD.</td>
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<td>20</td>
<td>0 1 2 3 4 5 6 7 8 9</td>
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<tr>
<td>21</td>
<td>Thể hiện vai trò người hướng dẫn đối với sinh viên, GVDLSDD mối và/hoặc với các điều hướng mới trên làm sáng.</td>
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<tr>
<td>22</td>
<td>Cân bằng bản thân giữa các vai trò chuyên môn (giảng dạy làm sáng, giảng dạy lý thuyết, nghiên cứu và thực hành làm sáng).</td>
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<td>23</td>
<td>0 1 2 3 4 5 6 7 8 9</td>
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<td>24</td>
<td>Xác định nhu cầu phát triển nghề nghiệp của bản thân.</td>
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<td>26</td>
<td>Tham gia vào các hoạt động phát triển nghề nghiệp để đáp ứng nhu cầu của bản thân.</td>
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<td>27</td>
<td>0 1 2 3 4 5 6 7 8 9</td>
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<td>28</td>
<td>Thể hiện sự tiến bộ về kỹ năng giảng dạy làm sáng dựa trên quá trình trải nghiệm, tự nhận xét rút kinh nghiệm và không ngừng học tập nâng cao trình độ chuyên môn.</td>
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</tbody>
</table>

Xây dựng bởi Van Nguyen, Maxine Duke và Helen Forbes, 2014

KẾT THÚC BẢNG KHẢO SÁT
TRÂN TRỌNG CẢM ƠN QUÝ THẦY/CÔ RẤT NHIỀU!

---

13 Bản quyền của bảng câu hỏi này thuộc về tác giả. Việc sử dụng hoặc hiệu chỉnh bảng câu hỏi này cần thông qua tác giả chính.
Appendix 11 – Ethics Approval

Memo

Memo

To: Professor Maxine Duke
   School of Nursing and Midwifery
From: Secretary – HEAG-H
   Faculty of Health
CC: Dr Helen Forbes, Ngoc Bich Van Nguyen
Date: 16 June, 2014
Re: HEAG-H 103_2014: The differences in perceived confidence and competence to teach clinical nursing among nurse educators in Vietnam

Approval has been given for Professor Maxine Duke, School of Nursing and Midwifery, to undertake this project for a period of 3 years from 16th June, 2014. The current end date for this project is 16th June, 2017.

The approval given by the Deakin University HEAG - H is given only for the project and for the period as stated in the approval. It is your responsibility to contact the Secretary immediately should any of the following occur:

- Serious or unexpected adverse effects on the participants
- Any proposed changes in the protocol, including extensions of time
- Any events which might affect the continuing ethical acceptability of the project
- The project is discontinued before the expected date of completion
- Modifications that have been requested by other Human Research Ethics Committees

In addition, you will be required to report on the progress of your project at least once every year and at the conclusion of the project. Failure to report as required will result in suspension of your approval to proceed with the project.

An Annual Project Report Form can be found at:
This should be completed and returned to the Administrative Officer to the HEAG-H, Pro-Vice Chancellor’s office, Faculty of Health, Burwood campus by Tuesday 18th November, 2014 and when the project is completed, HEAG-H may need to audit this project as part of the requirements for monitoring set out in the National Statement on Ethical Conduct in Human Research (2007).

Good luck with the project!

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14 The title of the thesis was later changed to “Measuring nurse educator confidence in clinical teaching competence”. The change was approved by the School of Nursing and Midwifery, Faculty of Health, Deakin University on 24/02/2016.
Steven Sawyer
Secretary
HEAG-H
Appendix 12 – Ethics Approval (post instrument modifications)

Memo

To: Professor Maxine Duke
   School of Nursing and Midwifery

From: Secretary – HEAG-H
   Faculty of Health

CC: Ngoc Bich Van Nguyen, Dr Helen Forbes

Date: 4 November, 2014

Re: HEAG-H 103_2014: The differences in perceived confidence and competence to teach clinical nursing among nurse educators in Vietnam

Approval has been given for Professor Maxine Duke, of the School of Nursing and Midwifery, to undertake this project with the modifications that were requested on the 4 November, 2014.

Please note that the current end date for this project is 16 June, 2017.

Steven Sawyer
Secretary
HEAG-H

15 The title of the thesis was later changed to “Measuring nurse educator confidence in clinical teaching competence”. The change was approved by the School of Nursing and Midwifery, Faculty of Health, Deakin University on 24/02/2016.