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A conceptual framework to facilitate clinical judgement in nursing: A methodological perspective



Anna Catharina van Graan^{*}, Martha Johanna Susanna Williams

School of Nursing Science, North-West University (Potchefstroom Campus), South Africa

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ABSTRACT

The South African health care and education systems are challenged to provide independent, critical thinking nurses who can cope with diversity in a creative way and define their role in a complex, uncertain, rapidly changing health care environment. Quality clinical judgement is an imperative characteristic that newly qualified professional nurses should possess. To accommodate these needs, SANC in line with the SAQA Act, advocated the development of teaching and learning strategies to balance theory and practice opportunities together with an outcome-based, studentcentred approach and appropriate clinical supervision. This resulted in a positive outcome to facilitate the integration/fusion of theory and practice. The purpose of this study was to synthesise a teaching–learning strategy for creating an enabling learning environment to facilitate clinical judgement in South African undergraduate nursing students. The proposed teaching–learning strategy is grounded in modern-day constructivist approach of learning. The conceptual or theoretical framework of this study aimed to link the central concepts that were identified from the conclusions of four (4) strategic objectives of the two preceding phases of the study into a new structure of meaning that served as a basis for the proposed strategy. The implementation of the proposed action plan to achieve the stated strategic objectives should empower the relevant role players to facilitate clinical judgement in undergraduate nursing students and thereby promote autonomous and accountable nursing care.

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1. Introduction

The changing needs of the health care environment require a shift to interactive, student-centred curricula (Potgieter, 2012).

Nurse graduates have to be able to think critically and innovatively, should be competent in reflection and self-critique, synthesise information, link concepts and become self-directed lifelong learners. They must also be able to decide

^{*} Corresponding author. School of Nursing Science, North-West University (Potchefstroom Campus), Private Bag X6001, Box 520, Hoffman Street, Potchefstroom, 2520, South Africa. Fax: +27 18 299 1827.

E-mail addresses: Anneke.VanGraan@nwu.ac.za (A.C. van Graan), Marthyna.Williams@gmail.co.za (M.J.S. Williams).

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when and why higher order thinking is essential (Frith & Clark, 2013).

This will have a positive impact on patient outcomes as required for competent, professional, patient-centred care. Conversely, if nurse graduates do not have the ability to think critically or have poor clinical reasoning skills they often fail to detect impending patient deterioration, including failure to synthesise and act on clinical information (Considine & Currey, 2014:304) resulting in a failure-to-rescue which **effects quality care and patient safety** (World Health Organisation (WHO), 2013:1; Leonard and Kyriacos, 2015:16). Nursing schools across the country are striving to meet the challenges of rapidly changing health and educational systems and are reconsidering the role of the teaching–learning approach in an increasingly complex learning environment (South African Nursing Council (SANC), 2005; Nielsen, 2009; Sturgeon, 2011).

The SANC (2005) states the purpose of nursing education as “develop[ing] the undergraduate nursing student to become an independent, knowledgeable, safe practitioner with critical thinking skills.” This goal is in default, since research indicates that the current South African nursing programmes do not adequately prepare nursing students for the professional demands they have to face after completing their basic nursing education. Nurses are thus left extremely vulnerable, as they are not fully prepared clinically or educationally to treat patients requiring these comprehensive diagnostic and curative clinical skills due to the increase in demand mentioned above (Considine & Currey, 2014:304; Department of Health, 2008a), which directs the need to investigate the most crucial interrelated concepts.

Previous research (concept analysis of clinical judgement and focus group interviews with professional nurses) done by (Van Graan, Williams & Koen, 2016) identified essential concepts that address the four (4) strategic objectives briefly stated as the creation and utilisation of potential learning experiences to facilitate reasoning and problem solving skills through accompaniment, supervision and role modelling; the application of a variety of teaching–learning methods to improve, the accommodation of students' individuality and diversity of learning needs and styles and the facilitation of role players' interactive participation to achieve fusion of theory and practice (see Table 4) within aim of a teaching–learning strategy instituting an enabling learning climate/environment, to facilitate undergraduate nursing student's higher order thinking skills that would enhance execution of sound clinical judgement.

1.1. Focus and background of the study

The role of the nurse is becoming increasingly more complex as the health care environment has come to demand an emphasis on patient-centred care, patient satisfaction and evidence-based practice (Nabors, 2012).

South Africa carries a triple burden of diseases and the country's health and education systems are therefore challenged by the need for independent, critical thinkers who are able to question, weigh evidence, make informed judgements and accept the incomplete nature of knowledge, as well as to influence change and cope with diversity in a more creative way (SANC, 2005). Problem solving has long been recognised

as central to nursing practice and this requires the development of critical thinking, reasoning and decision-making skills (see Sections 1.5.3.2; 1.5.3.3 for concept clarification). There is an expectation that nursing graduates will come to the clinical environment possessing the knowledge and thinking skills needed for nursing care (Frith & Clark, 2013).

Currently this expectation leads from the clinical environment not met, to ill-prepared nursing graduate's not coping with the diversity and reality of the nursing care environment. Nurses in general struggle with a lack of support, nurses/nurse educator shortages, complex patients' and work environment issues. This has resulted in novice professional nurses often discovering their shortcomings when arriving in the health care environment. They are reluctant to make high-level decisions in an independent manner due to a lack of competence and a fear of making mistakes and being criticised by peers (Nabors, 2012; Thomas, Bertam & Allen, 2012), all the while trying to cope with the expansion in role. Chang, Chang, Kan, and Chou (2011) support the shortcomings and indicate that newly qualified nurses lack the high levels of cognitive proficiency demanded by the health care environment.

Conversely, nurses lacking higher order thinking skills may be at risk of not detecting acute patient changes and complications and often fail to detect impending patient deterioration resulting in harm to patients and poor quality care (Frith & Clark, 2013). *Cognitive failure* was identified as a factor in 57% of adverse clinical events and involves a number of features, including failure to synthesise and act on clinical information. Thinking strategies identified are therefore obligatory of nurses' professional identity for safe and quality clinical practice (SANC, 2005; Sturgeon, 2011).

In the wake of a growing concern about nurse competence, the authors Nielsen (2009) and Pongmarutai (2010) second the concern that nursing education programmes do not adequately prepare the student for the professional demands they face after completing their studies. The focus of nursing education currently seems to be on improving clinical skills rather than refining critical reasoning and communication aptitude but developing creative programmes that promote.

The researcher's experience as a nurse educator is that nursing students are accustomed to the presence of the lecturer/educator in class. The lecturer/educator provides the theoretical component of the curriculum using traditional teaching strategies (lectures) and offering information (facts) to be memorised, with the lecturer in direct control of the content (Bruce, Klopper & Mellish, 2011; Potgieter, 2012). Potgieter (2012) and Pongmarutai (2010) accentuate the knowledge explosion over the past decade, which implies that nursing educators can no longer simply “cover” the content of a subject or discipline. Frith and Clark (2013) stress that undergraduate nursing students are expected to develop and integrate knowledge and practice to achieve conceptual understanding to make the necessary clinical decisions in preparation for their role as professional nurses.

Nursing curricula throughout South Africa is under pressure for extensive revision. The SANC (2005), in line with the South African Qualification Authority (SAQA) Act (Act 58 of 1995), as well as Frith and Clark (2013) highlight the purpose of nursing education as “develop[ing] the undergraduate nursing student on a personal and professional level within a learning

environment conducive for learning to become an independent, knowledgeable, safe practitioner with analytical and critical reasoning skills.” The SANC (2005) further emphasises that teaching–learning strategies should enhance a balance of theory and practice. There should be a student-centred approach to assure appropriate clinical supervision and student support during integration of the theoretical knowledge from different learning areas with the clinical environment. In response, nursing students must learn to grasp the nature of the situation and to act appropriately with regard to the identified need (Frith & Clark, 2013) to reach a positive outcome of theory and practice integration (SANC, 2005).

Moving towards competency-based learning (CBL) curricula (Nielsen, 2009) within an outcomes-based educational approach (OBE) and an emphasis on primary health care, a strategy is necessary to move from content-based to concept-based learning to optimally reach the programme outcomes (SAQA, 1995; SANC, 2005). The OBE approach serves as a vehicle to reach the stated objectives or outcomes and competencies, which include knowledge, skills, attitudes and the values of the programme (Sanchez et al., 2008). Bruce et al. (2011) and SANC (2005) specify the programme outcomes as prompting the critical cross-field outcomes (essential life skills) that nursing students should achieve at the end of a specific programme.

CBL therefore aims to develop profession-specific transversal competences (instrumental, interpersonal and systemic) to endow nursing students with scientific and technical knowledge and skill that enable them to apply such knowledge in diverse complex contexts (Sanchez et al., 2008). CBL as grounded in the constructivism, centres on student self-motivation, responsibility, capacity and the development of their autonomy and self-reliance. The teaching role of the lecturer focuses on organising the teaching–learning environment so that student assessment is embedded in every step of the learning process, supervision by providing nursing students with guidance and support, development of cognitive strategies and cognitive goals to help them to learn and reflect on their learning (Sanchez et al., 2008), while driving their own learning towards competency (Klopper, 2009; Soares, 2012, pp. 1–19).

The acquisition of core competencies and compliance with cross-field outcomes as essential elements of nursing education is based on recognition of the clinical nursing environment as an important source of knowledge, theory and engagement with a community of practice (Scott, Vandenberg, & Cummings, 2011). The clinical nursing environment and patient interaction is therefore a primary source of learning, student support and continual assessment. All of these elements are conducive to enhancing critical and reflective thinking skills guided by the stimulation of nursing students' cognitive abilities, which has been identified as a need (Potgieter, 2012; SANC, 2005; South African Council of Higher Education (CHE), 2013). Such a programme facilitates the integration of theory and practice merged into the academic ideal, with the clinical reality to bridge the theory–practice gap (Distler, 2007; Thomas et al., 2012). Nursing students progress by demonstrating their clinical competence, as this measures learning (what comes out of the education) in that mastery, is the sole determinant of academic

progress (Mendenhall, 2012; Soares, 2012). Knowledge is therefore integrated with attitudes and values in ways that suit nursing students' personal and professional lives and that enhance lifelong learning (Sanchez et al., 2008; Sturgeon, 2011). Students will be subsequently prepared for a professional life, able to influence change, cope with diversity in a creative way, accept moral and legal accountability for their nursing practice (SANC, 2005; SAQA, 2011) and to simultaneously meet the increasing demand for affordable health care (Distler, 2007; Frith & Clark, 2013).

1.2. Problem statement

In the light of the changing needs of the health care environment, a shift to interactive, student-centred, concept-based curricula (Potgieter, 2012) is necessary. To meet the demands of the clinical environment, nurses should think critically and innovatively; should be competent in reflection and self-critique; synthesise information; link concepts and become self-directed lifelong learners. They should develop to become an independent, knowledgeable, safe practitioner (Frith & Clark, 2013; SANC, 2005).

Conversely, if nurse graduates do not have the ability to think critically or have poor clinical reasoning skills they often fail to detect impending patient deterioration, including failure to synthesise and act on clinical information (Considine & Currey, 2014:304) resulting in a ‘failure-to-rescue which effects quality care and patient safety, which can lead an increase in morbidity and mortality (WHO, 2013:1; Leonard and Kyriacos, 2015:16).

It has therefore become necessary to develop appropriate teaching–learning strategies to enhance the undergraduate nursing student's higher order thinking skills so that they can execute sound clinical judgement.

1.3. Aim and purpose of the research

The aim is to synthesise a teaching–learning strategy to link the central concepts (see Table 3) to provide a structure of meaning (see Fig. 1). The structure of meaning will serve as a basis for the proposed teaching–learning strategy to facilitate an enabling learning environment aimed at the facilitation of higher order thinking skills and clinical judgement within the context of undergraduate nursing students and the South African nursing environment. The research is based on a modern day constructivist approach.

1.4. Significance

The conceptual framework aims to link the central concepts to form a new structure of meaning (see Fig. 1) that can serve as a basis for a strategy for an enabling learning climate/environment to facilitate higher order thinking skills and clinical judgement within the context of undergraduate nursing student's and South-African nursing environment.

1.5. Paradigmatic perspective

The paradigmatic perspective serves as a framework for observation and insight to guide the research action. The

theoretical and methodological statements that serve as a framework are as follows:

1.5.1. Theoretical assumptions

The study is based on an acknowledgement of existing models that facilitate and support the discovery of elements relevant to clinical judgement as the phenomenon under study. The description takes place from a modern-day constructivist approach as described by Kloppe (2009). The proposed conceptual framework is utilised to describe the underlying meanings, relationships and interconnectedness between the constructs of environment, nursing practice, nursing theory and the professional nurse within which clinical judgement is embedded (Burns & Grove, 2009; Williams, Kloppe, Koen, & Coetzee-Van Rooy, 2008).

1.5.2. Central theoretical statement

Clarity on the meaning of the concept clinical judgement within the South African nursing environment should ease the synthesis of a teaching–learning strategy. The first two phases of the research explore the meaning of the concept clinical judgement within the South African nursing environment based on a concept analysis and from the perspectives of professional nurses within a specific contextual clinical environment. This research aims to synthesise a teaching–learning strategy from a conceptual framework to institute an enabling learning climate/environment that facilitates higher order thinking skills among undergraduate nursing students so that they will be able to execute sound clinical judgement.

1.5.3. Theoretical definitions of key concepts

The connotation and primary meaning of the key concepts as central to this research study will enhance a common understanding.

1.5.3.1. Competence-based education. Competence-based education focuses on the achievement of specific competencies and entails the deliberate exercise of principled judgement based on rational knowledge and understanding. The four conceptual tenets include having the necessary knowledge, skill (behaviour), attitude (interpersonal relationships) and values to demonstrate competency. Such a competent nurse is capable of providing nursing care based on sound integrated knowledge with attitudes, values and decision making under various circumstances in diverse complex contexts (Alfaro-LeFevre, 2012; Soares, 2012, pp. 1–19) that enhance lifelong learning (Sanchez et al., 2008).

1.5.3.2. Critical thinking. Critical thinking as an umbrella term includes reasoning. Clinical reasoning and clinical judgement are key aspects of critical thinking (Alfaro-LeFevre, 2012). Critical thinking for nurses are defined as being influenced by knowledge and experience, using strategies such as reflective thinking to holistically synthesise patient information in the nursing practice. It is therefore an essential component of professional accountability and quality nursing care. Critical thinkers in nursing exhibit the habits of the mind as confidence, contextual perspective, creativity, flexibility, inquisitiveness, intuition and reflection during the use of cognitive

skills such as analysing, reasoning, predicting, information seeking and transformation of knowledge.

1.5.3.3. Clinical reasoning. Alfaro-LeFevre (2012) refers to clinical reasoning as different ways of thinking about patient care issues. It includes determining, preventing and managing, or teamwork and collaboration. The author conceptualises it as the process through which nurses make clinical judgements as conclusions by selecting from alternatives, weighing evidence, using intuition and pattern recognition.

1.5.3.4. Clinical judgement. Clinical judgement refers to the result of clinical thinking or clinical reasoning employed to reach a conclusion. This follows a process of observation, reflection and analysis of observable or available information by weighing evidence, using intuition and pattern recognition (Alfaro-LeFevre, 2012; Thompson et al., 2013) in order to make an informed clinical decision.

1.5.3.5. Reflection. Effective reflection involves self-assessment of clinical performances, evaluating nursing experience and identification of strengths and weaknesses with commitment to improvement. Other studies (Alfaro-LeFevre, 2012; Frith & Clark, 2013; Gerdeman, Lux, & Jacko, 2013) support reflection as the movement of thought from existing to emerging situations to gain a deeper understanding and to therefore facilitate learning. Nielsen (2009) emphasises reflection as introspection regarding an experience.

1.5.3.6. Teaching–learning. McLeod (2010) defines “learning” as the process through which nursing students create knowledge through transforming their experience. For the purpose of this study, teaching–learning refers to an interactive and cumulative process of knowledge construction during interaction (clinical accompaniment) between the role-player as learning facilitator and the undergraduate nursing student through interpretation, understanding and conceptual change (new understanding). Nursing students construct meaning during these interactions in the nursing environment based on constructivist learning principles.

1.5.3.7. Strategy (synthesis). A strategy refers to an effort or deliberate action taken to out-perform a rival. Ehlers and Lazenby (2010) describe a strategy as blending and integration, or synthesis. It involves combining or mixing two or more concepts. The concepts as identified (see Table 3) are fused to create a complex new conceptual framework for a teaching–learning strategy in the nursing science based on the constructivist learning approach to achieve the desired outcomes. These outcomes include the learning content, teaching methods, learning activities and media. For the purpose of this study, strategy refers to a pedagogical approach as a long-term plan for achieving the learning outcomes.

1.6. Research methodology

The methodological assumptions include the researcher's own views regarding the purpose, methods and criteria for validity. These assumptions are examined to assure a scientific research process. Ultimately the process is aimed at

creating a conceptual framework to induce an enabling learning environment for the facilitation of higher order thinking skills and clinical judgement for undergraduate nursing students.

This study forms part of a multi-phase research and the methodology will be discussed as part of an overview of the previous phases. Table 1, provides an overview of the multi-phase research methodology which include steps 1–4. Reference to phases 1 and 2 (first step), allude to the previous phases of this research from which concepts were identified and includes the research design, population, sample, data collection, data analysis and rigour. Step 2 includes the development of relational statements; step 3 – construction of the conceptual framework and step 4 – the development of the clinical teaching–learning strategy.

1.6.1. Rigour

The standards and principles of rigour guide the researcher to generate valid scientific knowledge. Rigour is the umbrella term used to describe all strategies used to ensure good quality research, namely trustworthiness, validity and reliability. In Table 2 the universal standards for trustworthiness, validity and reliability are outlined as they were used.

1.6.2. Ethical considerations

Ethical permission was obtained from the North-West University Ethics Committee (NWU-00107-13-S1) as well as the Ministry of Health Research and Ethics Committee (Policy, Planning, Research, Monitoring and Evaluation). Research experts also scrutinised the research proposal during a formal public defence.

2. Results and discussion

2.1. Conceptual framework

Burns and Grove (2011) describe a framework as an “abstract, logical structure of meaning that enables the researcher to link findings to nursing knowledge to facilitate the dialogue between the literature and the study.” The conceptual or theoretical framework aims to link central concepts that were identified from the conclusions of two preceding phases of the research as indicated (Table 3). These identified concepts are placed into a new structure of meaning (Fig. 1) that will serve as a basis for the proposed strategy of this study.

2.1.1. Construction of the conceptual framework

The researcher compiled the conceptual framework by implementing the following steps:

- The identification of central concepts derived from the concluding statements of Phases 1 and Phase 2 of previous research (Table 3) (Van Graan et al., 2016; Van Graan, Koen, & Williams, 2016).
- A description of a conceptual framework;
- Diagrammatic presentation of the conceptual framework.

The following section describes the strategic objectives in association with an action plan to achieve the strategic aim.

2.1.2. Components of the conceptual framework

The teaching–learning strategy for creating an enabling learning environment to facilitate higher order thinking skills and clinical judgement in undergraduate nursing students as aim of this study can be described according to the components of the conceptual framework identified by Williams et al. (2008). The identified concepts are the role players, context, process and planned outcome serves as the framework and the foundation for such a teaching–learning strategy based on a modern-day constructivist approach as integrated and described in the proposed conceptual framework.

2.2. Description of the conceptual framework

2.2.1. The role players

Learning accompanists (nurse educators), clinical accompanists (clinical facilitators, preceptors, mentors), undergraduate nursing students, professional nurses and health care professionals (doctors, social workers, physiotherapists, pharmacists), patients and the teaching–learning material and/or situation.

The researcher departs from the assumptions that emphasise the interplay between the learning facilitator, the nursing student and the clinical nursing environment as the context, as well as the active role the nursing student plays in the construction of own knowledge and conceptual change. The facilitator's approach towards teaching should be student-centred and the context conducive to learning within the clinical nursing environment. Nursing students' attitudes, motivation, and beliefs impact on the learning process as well as the socio-cultural and historical influences on the construction of knowledge within the nursing environment are also emphasised (Klopper, 2009; Yilmaz, 2010).

2.2.2. Context

2.2.2.1. *Ethical–legal framework.* The nursing profession in South Africa is regulated by the Nursing Act (Act 33 of 2005) and other regulations setting and maintaining standards for education and practice with an ethic of care under the auspices of the South African Nursing Council (SANC). The Nursing Education Institutions (NEI) provide learning opportunities to ensure competent nurses who are responsive to the country's health care needs within the parameters of the National Health Act, 2003 (Act 61 of 2003) as amended by the National Health Amendment Act 12 of 2013 (South Africa, 2013) and the Higher Education Act (Act 101 of 1997) (South Africa, 2012).

2.2.2.2. *Philosophical approach.* This framework aims to create an enabling learning environment grounded in a modern-day constructivist approach of learning by focussing on knowledge construction through critical reflection, interpretation, understanding and conceptual change (new understanding) (Klopper, 2009). The constructivist approach supports the proposed framework as the nursing environment is inclusive of the clinical nursing environment (nursing practice), nursing education (theory) and the interaction of the role players involved during clinical practice as the teaching–learning situation. The role of nurses' background, the

context of the situation, and nurses' relationship with their patients as central to what and how nurses' notice, interpret findings, respond, and reflect on their responses, refer to the interaction between student nurse and role players. Underlying the clinical response nurses' ethical perspectives during the relationship with the patient include nurses' moral and ethical reasoning (Alfaro-LeFevre, 2012). Values are interrelated and clarified as personal, professional and organisational. Personal values as cornerstone refer to beliefs, quantities, and standards that affect a nurse's ability to cope with various circumstances during care giving.

2.2.3. Process

The constructivist approach (Klopper, 2009) underlines interaction as something that arises from this engaged, concerned attitude, always in relation to a particular patient and situation and informed by generalized knowledge and rational processes, but never as an objective, detached exercise with the patient's concerns as a sidebar. The approach furthermore accentuates that nurse educators need to help students understand and develop as moral agents, advance their clinical knowledge through expert guidance and teaching, and help them become habitual in reflection on practice. The competencies could be used to change educational practices and promote clinical judgement to address current challenges in nursing education.

Klopper further highlights that a teaching–learning experience/educational practices shared by role players have to support and empower undergraduate nursing students as they engage with patients and have to act on a vision for excellent care, including a concern for those patients and families' well-being.

The empowering process involves an interactive process of accompaniment and supervision. Skilled and experienced professionals act as role models to actively interact with nursing students, to assist them, to reflect, share and challenge understanding. A focus on higher order thinking skill competencies such as critical thinking, reflection, clinical–ethical reasoning and decision making is of importance in order to achieve a fusion of theory and practice (Tanner, 2006). Tanner underlines clinical reasoning as something that arises from this engaged, concerned attitude, always in relation to a particular patient and situation and informed by generalized knowledge and rational processes, but never as an objective, isolated exercise with the patient's concerns as a sidebar. The scientific method of nursing serves as a vehicle for the development of clinical judgement; information gathering by means of reasoning and thinking skills; interpretation of the gathered data by linking it to theoretical and experiential knowledge to make sense. The competencies could be used to change educational practices and promote clinical judgement to address current challenges in nursing education.

This process follows a spiral developmental effect from elementary to complex. Continuous, critical reflection assesses the effectiveness of the process, provides opportunities for interaction between the role players and enables the dissemination of insight to encourage nursing students to develop interpretive, analytical, evaluative, inferential and explanatory skills to arrive at clinical judgement.

2.2.4. Planned outcome

The envisioned objective is to create an enabling learning environment for the empowerment of undergraduate nursing students with clinical judgement within the ethical–legal parameters of the nursing profession to achieve autonomous and accountable quality nursing care.

The conceptual framework for an enabling learning environment to facilitate clinical judgement in undergraduate nursing students is presented diagrammatically in Fig. 1.

2.3. Strategy development

The development of the teaching–learning strategy includes four elements as described below (Fig. 2):

2.3.1. Vision

Developing a strategic vision provides the framework for strategic planning and determines what the organisation's long-term direction or desired future should be (Ehlers & Lazenby, 2010). The South African Nursing Council states its vision as “excellence in professionalism and advocacy for health care users.” In line with this, the researcher's vision for the proposed strategy is to create an enabling learning environment through the interplay between the role players as learning facilitators, the nursing student and the clinical nursing environment. The active role the nursing student plays in the construction of own knowledge and conceptual change as emphasis to facilitate higher order thinking skills and clinical judgement in undergraduate nursing students.

2.3.2. Mission

The mission statement embodies the philosophy, values, identity, character and priorities of the teaching–learning environment in interaction with the student. It reflects the image the teaching–learning environment should project as the intended future goal (Ehlers & Lazenby, 2010).

The mission statement of the higher education institution (HEI's) is that it strives to create and sustain dynamic communities of inquiry in which nursing students are valued partners by becoming self-directed and life-long learners who make distinctive contributions to society and the world of work as responsible citizens, knowledgeable professionals, innovative thinkers and effective leaders (North-West University [NWU], 2014). This mission statement is congruent with the vision of the South African Department of Education and Training (DHET) (2014), SANC (2005) and the researcher. The mission statement for an enabling learning environment as developed from the role players vision reads as follows:

The creation of an enabling learning environment based on constructivist learning principles as a powerful learning experience for undergraduate nursing students, and the facilitation of clinical judgement within the ethical–legal parameters for the nursing profession, making a contribution towards the delivery of autonomous and accountable nursing care.

2.3.3. Values and principles

The constructivism approach as applied emphasizes the interactive role of nurses' as discussed in Section 2.2.3. Underlying the clinical response include the nurses' ethical perspectives during the relationship with the patient as part of the nurses' moral and ethical reasoning (Alfaro-LeFevre, 2012). Values are interrelated and clarified as personal, professional and organisational. Personal values as cornerstone refer to beliefs, quantities, and standards that affect a nurse's ability to cope with various circumstances during care giving.

An ethic of care reflects respect, individual uniqueness, personal relationships and the dynamic nature of life (Alfaro-LeFevre, 2012). The personal values should therefore be compatible with the values of the profession and the latter to the organisation. SANC states its values as advocacy, caring, quality, professionalism, innovation and relevance. The essential principles of an ethic of care include compassion, collaboration, accountability and trust. The vision (aim) of this study is broken down into objectives to realise the facilitation of clinical judgement within the stated principles.

2.4. Strategic process

A study strategy refers to a pedagogical approach as a long-term plan intended to achieve a particular purpose (Ehlers & Lazenby, 2010). Learning or instructional strategies determine the approach for achieving the learning outcomes and are included in the pre-instructional activities, information presentation, undergraduate nursing student activities, testing, and follow-through. The strategies are usually tied to the needs and interests of nursing students to enhance learning and are based on different types of learning styles.

In other words, the learning outcomes point towards the instructional strategies, while the instructional strategies point to the medium used to actually deliver the instruction, such as e-learning, self-study or experiential learning. For this study the medium is the nursing environment (nursing practice and nursing education (theory)).

Strategic process refers to the methodical, dynamic, entrepreneurially structured process through which the teaching–learning environment in interaction with the student defines its identity and purpose over time and develops a vision and mission and states its values and principles.

The strategic process enables the prioritization of long- and short-term goals (aims) or statements and actions to achieve the goal an education institution seeks to achieve over a period of time. These should be in line with the institution's vision and reflect the teaching–learning environment's direction (Ehlers & Lazenby, 2010).

A strategy in reference to the teaching–learning context is an overall plan to achieve specific teaching–learning outcomes. In this study, the proposed teaching–learning strategy is formulated on the basis of 4 (four) objectives and an action plan (short-term plan) to achieve the stated goal. For the purpose of this research, the strategic vision or aim is to institute an enabling learning environment to facilitate clinical judgement in undergraduate nursing students (Ehlers & Lazenby, 2010). The four (4) strategic objectives for this study

were developed by means of deductive logic based on the seven (7) problem areas (see Fig. 2).

2.4.1. Strategic objectives as embodied in an action plan

The following section describes the strategic objectives as embodied in an action plan to achieve the outcome and the strategic aim to synthesise a teaching–learning strategy for instituting an enabling learning climate/environment to facilitate clinical judgement skills within the context of undergraduate nursing student's and South-African nursing environment based on the identified objectives (see Table 4).

3. Recommendations for practice, education and research

The following recommendations, with special reference to nursing education, nursing practice and nursing research, based on the findings of this study should enhance the development of clinical judgement in undergraduate nursing students.

3.1. Nursing practice

Theory and practice integration (fusion) will develop nursing students' higher-order thinking skills and vice versa. Clinical facilitators should be experienced and skilled with a good knowledge base and should function as role models. Nurse educators should avail themselves of the clinical practice environment to ensure quality accompaniment, guidance and support on a continuous basis, especially of junior nursing students. Students should exercise reflective interaction and aloud thinking from first level of training. Collaboration and functioning as a team may improve commitment to facilitation. Implementation of the “Lasater Clinical Judgement Rubric” (LCJR) for clinical assessment within the SA clinical environment could be valuable.

3.2. Nursing education

Education institutions should consider short learning programmes, workshops or presentations during in-service training. Innovation regarding different teaching–learning methodologies should be implemented to enhance thinking- and problem solving skills. Educators should make use of different learning styles to accommodate the different learning needs of culturally diverse nursing students. Students should be exposed to a variety of clinical learning experiences that increase in complexity to enhance reasoning skills, reflective interaction with result in fusion of knowledge acquisition and knowledge use. Adjustments of the “Lasater Clinical Judgement Rubric” (LCJR) for clinical assessment within the SA clinical nursing environment will benefit this process.

3.3. Nursing research

Research has to be conducted on the appropriateness and outcome of the teaching–learning strategies to enhance higher order skills in undergraduate nursing students.

4. Limitations of the study

The synthesis of a teaching–learning strategy for establishing an enabling learning environment was challenged by the space limitations (5000 words) of the article format.

5. Conclusion

This article proposed a teaching–learning strategy for the creation of an enabling learning environment to facilitate higher order thinking skills and clinical judgement in undergraduate nursing students. The concepts as identified and utilised in the conceptual framework emphasised knowledge, skills, attitudes and values which enhance higher order thinking skills through the interplay between the learning facilitator, the nursing student and the clinical nursing environment, including the patient as the context. The active role of the nursing student plays in the construction of own knowledge and conceptual change were emphasised. The role of nurses' background, the context of the situation, and nurses' relationship with their patients as central to what nurses observe, interpret, respond to, and reflect on were accentuated. The study revealed the complexity of theory–practice integration, clinical accompaniment, supervision and reflec-

tion as essential elements in the facilitation of clinical judgement. The recommendations should enhance the learning opportunities and experiences for undergraduate nursing students involved in the teaching–learning situation.

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Contribution

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Appendices A

Appendix A1

Table 1 – Overview of the multi-phase research methodology.

Research objective: to synthesise a teaching–learning strategy from a conceptual framework for an enabling learning environment to facilitate higher order thinking and clinical judgement skills facilitate clinical judgement from a modern day constructivist approach within the South African nursing environment.

Research method	Data collection	Data analysis
<p>Step 1: select and define concepts Concepts were identified from previous completed research phases 1 (concept analysis) & 2 – (focus group interviews-World Café Method) (see Table 3)</p> <p>Phase 1: purposive sampling applied in the selection of databases to gain rich data and a comprehensive understanding of the concept clinical judgement from all available national and international sources of data in which the words clinical judgement appear and to achieve saturation of information (Burns & Grove, 2009).</p> <p>Population Sample size The population was selected from an University library and included South African and international journal databases: EBSCO host and Google Scholar, books, dictionaries, thesauri, journals, theses and dissertations to review the literature sources, in which the concept clinical judgement/clinical judgement appears (Articles</p>	<p>Step 1: literature related to clinical judgement was explored, interpreted and integrated and was described by means of the Walker and Avant's method of concept analysis (Walker and Avant, 2011)</p> <p>Data were collected and sifted for relevant information and incorporated into the study if it answered the proposed research questions (Burns & Grove, 2009).</p> <p>Step 2: identification and description of the empirical referents of clinical judgement.</p> <p>Step 3: literature integration</p>	<p>Different reasoning approaches were followed:</p> <ul style="list-style-type: none"> • Systematise, deduce, condense, culminate in theoretical explanations • Examination and analysis of identified sources • Content analysis to identify the defining characteristics (connotations) of clinical judgement • Identification and description of empirical referents derived from the results of the concept analysis and the integrative literature control through an inductive approach (Burns & Grove, 2009)

Table 1 – (continued)

Research objective: to synthesise a teaching–learning strategy from a conceptual framework for an enabling learning environment to facilitate higher order thinking and clinical judgement skills facilitate clinical judgement from a modern day constructivist approach within the South African nursing environment.

Research method	Data collection	Data analysis
<p>Population</p> <p>N = 13,117; dissertations N = 347 and books N = 146)</p> <p>Phase 2 – the study population included all qualified professional nurses working at community clinics, public and private hospitals in the Matlosana and Tlokwe sub-districts of the Kenneth Kaunda district, North-West province, where undergraduate nursing students are placed for work integrated learning</p>	<p>Data collected through the use of the “World Café” method which implements seven <i>design principles</i>. The World Café method is a combination of qualitative data collection techniques, such as interviewing, drawings and narratives and reflection and was appropriate to collect a large quantity of rich data within a short amount of time as it is a brainstorming tool that generates ideas and comments by collaborative dialogue, sharing knowledge and possibilities for action in groups (Koen, Du Plessis, & Koen, 2012; The World Café, 2008)</p> <p>Data was captured using an audio tape recorder and transcribed verbatim for analysis. Field notes were collected to enrich the data. Questioning centred on the following phrases:</p> <ul style="list-style-type: none"> • Explore and describe the meaning, characteristics and process of clinical judgement • Explore and describe factors that influence the development of clinical judgement within the clinical nursing environment 	<p>Data analysis approach: qualitative thematic content data analyses principles were used. The application of document analysis was useful during data analysis of the World Café data</p> <p>The steps followed: the unit of analysis was expressions that represented an answer/idea/suggestion with regard to these broad categories and overall theme: clinical judgement. Data was analysed independently by one researcher according to the 7 steps of data analysis, while another acted as co-coder (Koen et al., 2012).</p> <p>Consensus meeting: identified themes and sub-themes were compared with raw data. Data saturation was reached</p> <p>Triangulation of the themes that emerge from phase 2 and phase 1 in order to provide a true scientific basis for the conceptual framework (see Fig. 2)</p>
<p>Setting</p> <p>The setting for the focus group interviews was an university campus in the NW Province. The venue was set up as a café to ensure a relaxed atmosphere and tables were arranged to accommodate participants from different clinical facilities with a table facilitator, provided with paper, coloured pens and refreshments</p>	<p>Purposive sampling was used. The study sample comprised professional nurses, who have at least 3 years clinical experience; gave voluntary, consent and who are able to communicate in Afrikaans or English; and who are prepared to have interviews audio-recorded</p>	<p>Eleven professional nurses who met the inclusion criteria voluntarily took part in data collection (n = 11) (Burns & Grove, 2009)</p>
<p>Sampling</p> <p>Eleven professional nurses who met the inclusion criteria voluntarily took part in data collection (n = 11) (Burns & Grove, 2009)</p> <p>Step 2: develop relational statements</p> <p>In this study, all the selected constructs were studied by means of a literature review, which resulted in a description and diagrammatic presentation of the concepts. Reflective interaction by the undergraduate nursing student and the role players during patient care, theory practice integration/fusion, critical thinking, reflection, reasoning, decision making and clinical judgement - that clearly stipulates the relationship between them (Burns & Grove, 2009)</p> <p>Step 3: construct a conceptual framework</p> <p>A conceptual map is portrayed by an inductive approach as a framework that illustrated the interrelationships of concepts in a diagrammatic layout. The conceptual framework was compiled of all the concepts (see Table 3) necessary to diagrammatically explain and clearly portray the constructs embedded in clinical judgement within S.A nursing environment (Burns & Grove, 2009)</p>	<p>A conceptual framework is development as an outline that specifically enhances the understanding of the particular phenomenon – clinical judgement in the selection and definition of concepts, the proposition of relationships between those concepts, the expression of statements in hierarchical fashion and diagrammatic presentation of the conceptual framework (Burns & Grove, 2009)</p>	<p>A conceptual framework that presents the context and related constructs embedded in clinical judgement within the nursing environment was described by following a deductive approach that investigated the underlying meanings, relationships and interconnectedness between the concepts (Burns & Grove, 2009; Walker & Avant, 2011)</p>

(continued on next page)

Table 1 – (continued)

Research objective: to synthesise a teaching–learning strategy from a conceptual framework for an enabling learning environment to facilitate higher order thinking and clinical judgement skills facilitate clinical judgement from a modern day constructivist approach within the South African nursing environment.

Research method	Data collection	Data analysis
<p>Step 4: a clinical teaching–learning strategy was developed from a modern-day constructivist approach and an in-depth literature study by interpretation and integration of the identified constructs (the underlying meanings, relationships and inter-connectedness between the constructs of the South-African clinical nursing environment and undergraduate nursing student as practitioner), in which clinical judgement is embedded</p>	<p>Conclusions from descriptions The themes that emerged from the focus group interviews (phase 2) were triangulated with the concepts identified from the conceptual analysis (phase 1). This confirmed this concepts as true scientific basis for the conceptual framework, and highlights new insights gained from the research as constructed (see Fig. 2)</p>	<p>The researcher ensured openness, scrupulous adherence to a philosophical perspective, thoroughness in collecting data, and consideration of all the data in the subjective theory and development phase Qualitative researchers tend to reject the terms reliability and validity in favour of credibility, transferability, dependability and conformability. Trustworthiness has four epistemological standards, namely truth value, applicability, consistency and neutrality. These have specific strategies, being credibility, transferability, dependability and conformability, along with authenticity. Table 2 shows the measures followed to ensure the rigour or trustworthiness of the study</p>

Appendix A2

Table 2 – Universal standards for trustworthiness, validity and reliability.

Universal standards	Application of trustworthiness
Clear definitions	<p>Theoretical validity: the key concepts of meaning were described through the process of conceptualisation as well as the grounding and the integration of research</p>
Truth value	<p>Credibility was assured through a literature review: the researcher used different data collection methods, as well as multiple data sources, namely focus group interviews with professional nurses (World Café method, which includes narratives, pictures and reflection) to validate the data from an in-depth literature review during the concept analysis. Consistently pursuing interpretations in different ways were made and the researcher focuses on characteristics or aspects of a situation or conversation that are relevant to the phenomena being studied so as to provide more depth to the description. This enabled her to understand the phenomenon more comprehensively and to develop the conceptual frame work for the teaching–learning strategy to facilitate critical thinking and clinical judgement in undergraduate nursing students</p>
Applicability	<p>Peer review: a peer review document to evaluate the teaching–learning strategy of the researcher was checked by a facilitator who is an expert in research</p> <p>Saturation of data: data saturation occurred, additional sampling provided no new information, and when themes elicited became redundant and repetitive</p> <p>Thick description: in this research study description was done throughout by reporting all data collection and data analyses, as well as findings and conclusions reached.</p> <p>Purposive sampling: in this research study purposive sampling was constantly used in objective one and two when sampling the concepts/identified needs selected from the conclusions reached in phases 1–2 of the research</p>
Consistency	<p>Dependability was assured by stepwise replication: a step-by-step account was given of the whole research process, findings and conclusions.</p>
Neutrality	<p>Inquiry audit: the researcher was accompanied by a promoter experienced in conceptual frameworks and synthesis of strategies which allows for achieving dependability of the data</p> <p>Confirmability: reached by inquiry audit as all raw data, analysis products and theoretical notes relating to trustworthiness were kept to show transparency of the research process. The techniques used were the inquiry audit and triangulation (discussed under credibility and dependability)</p> <p>Inferential validity: this was done throughout the research study by describing the whole research process in depth</p>

Sources: Adapted from (Klopper & Knobloch, 2010).

Appendix A3

Table 3 – Concepts/identified needs selected from the conclusions of a multi-phase research study.

Research objectives of multiphase research	Conclusions	Central concepts/Identified needs
<p>Phase 1 – Objective: to explore and describe clinical judgement as a concept within the South African nursing environment in order to construct a denotative (operational) definition</p>	<p>Conclusion 1: clinical judgement is the conclusion at which a nurse arrives by using the ability to recognise salient pieces of information gathered by direct observation and patient assessment within an undefined clinical context. Interpretation of meaning is followed by a period of reflection and reasoning to come to a clinical grasp/informed opinion of the situation. An appropriate response to the identified salient aspects is based on empirical knowledge, shaped by the nurse's clinical experience, intuition and ethical-moral beliefs</p>	<ul style="list-style-type: none"> • Knowledge on what clinical judgement as skill entails: <ul style="list-style-type: none"> • patient • knowledge/clinical experience • ethical–moral beliefs • assessment/observation • decision making • appropriate response • reflection critical thinking/reasoning • interpretation
<p>Phase 2 – Objective: to explore and describe the meaning, characteristics and process of clinical judgement</p>	<p>Theme 1: meaning of the concept clinical judgement Conclusion 1: the participant's verbalised a basic and simplistic understanding of the concept of clinical judgement in nursing. It seems as if clinical judgement is confused with good nursing care. The understanding of the relationship between a sound knowledge base, reasoning, critical thinking skills and its impact on effective interpretation, and ultimately decision making, seems to be insufficient</p>	<ul style="list-style-type: none"> • A sound knowledge base; reasoning; critical thinking skills; effective interpretation; reflection, problem solving and decision making skills
<p>Phase 2 – Objective: to explore and describe the factors that influence the development of clinical judgement within the nursing environment in the North-West Province</p>	<p>Theme 2: factors influencing the development of clinical judgement The clinical nursing environment is currently not conducive to the nurturing of nursing students' clinical judgement due to: Conclusion 1: inadequate clinical accompaniment on account of staff shortages, insufficient role models and the lack of motivation, knowledge and confidence for the task among professional nurses Conclusion 2: the gap between theory and practice hampers critical thinking, an essential skill needed for clinical judgement Conclusion 3: the large intake of first year nursing students is an obstacle for the clinical placement of nursing students for maximum exposure to appropriate learning opportunities Conclusion 4: nursing students are used as a workforce for repetitive menial tasks to fill the gap in understaffed units, resulting in limited learning opportunities and a lack of guidance by experienced practitioners Conclusion 5: stressed interpersonal relationships and inadequate interactive communication are obstacles for trust and confidence to seek clarity and share understanding</p>	<ul style="list-style-type: none"> • An enabling teaching–learning environment for the facilitation of clinical judgement through clinical accompaniment and role modelling • Fusion of theory and practice • Effective placement of nursing students for maximum exposure to appropriate learning opportunities and fusion of theory and practice • Appropriate learning opportunities through effective clinical accompaniment and role modelling • Need for reflective interaction to ensure appropriate learning opportunities through effective clinical accompaniment and role-modelling

Appendix A4

Table 4 – Action plan. The following section describes the strategic objectives as embodied in an action plan to achieve the outcome and the strategic aim.

The strategic aim of this research is to synthesise a teaching–learning strategy for instituting an enabling learning climate/environment to facilitate clinical judgement skills within the context of undergraduate nursing student's and South-African nursing environment based on the following objectives

<p>Strategic objective 1: the creation, recognition and utilisation of potential learning experiences to facilitate clinical judgement through accompaniment, supervision and role modelling based on constructivist principles</p>	<p>Literature support</p>
<p>Actions: All role players (professional nurses, lecturers, clinical preceptors, undergraduate nursing students, members of the multi-disciplinary team) accept responsibility for creating and maintaining a relaxed, non-threatening, safe environment conducive to continuous, life-long learning by means of:</p> <ul style="list-style-type: none"> • Interpersonal relationships grounded in ethical and professional values; • A collegial network to assist one another where parties are approachable and available for guidance, support, clarification and feedback; • Opportunities for discovery learning, sharing of understanding, self-assessment and individual decision-making with the support, guidance and feedback from experienced and knowledgeable professionals. • Demonstration and encouragement of critical thinking by linking existing knowledge (experiences and theory) to new data (practice) through the processes of assimilation and accommodation to help nurses make sense and assist in decision-making; • Opportunities for post-conference debriefing and reflection by sharing, clarifying and challenging interpretation, with alternative viewpoints to actively construct new understanding. • Continuous supervision and role modelling during which a skilled/experienced individual (professional role player) assists, educates and supports a less experienced person (student) in the art and skills of clinical judgement. • Integrating observation and explicit questioning to stimulate students' reasoning skills for different clinical decisions, making inferences from given data, recognising unstated assumptions and weighing evidence. • An atmosphere that fosters interaction and dialogue promotes risk-taking and avoids competition. • Assessment to include analysis, synthesis and motivation for decision making. • Empowerment of role players by means of workshops and short courses in the art and skills of clinical accompaniment to facilitate clinical judgement in undergraduate nursing students. • Regular constructive, open discussion sessions between role players to assess problem areas, vent feelings and plan for improvement. 	<ul style="list-style-type: none"> • Frith and Clark (2013) • Alfaro-LeFevre (2012) • Soares (2012) • Bos, Alinaghizadeh, Saarikoski, and Kaila (2011) • Bruce et al. (2011) • Yilmaz (2010) • Klopper (2009) • Clynes and Raftery (2008) • Distler (2007)
<p>Strategic objective 2: The application of a variety of teaching–learning methods to improve thinking-, reasoning and problem solving skills</p>	<p>Literature support</p>
<p>Actions:</p> <ul style="list-style-type: none"> • The facilitation of thinking-, reasoning and problem solving skills focus on active participation, collaboration and cooperation of all role players. • Linking theoretical knowledge to nursing practice and vice versa by means of case studies, experiences, narratives and simulation. The real clinical setting serves as valuable opportunity for nursing students to employ their newly acquired skills to the needs of patients. • Critical thinking-, reasoning and problem solving skills are stimulated by problem-based scenarios to be analysed, debated, synthesised and motivated in small groups. Allocating different roles (skeptic, supporter, devil's advocate) to group members discourages students from settling on the first reasonable solution. • Encourage group activities to stimulate interaction and collaboration with peers where points of view and interpretations can be compared, and misunderstandings and errors can be utilised as learning opportunities. • Encourage students to come prepared to the contact session to be able to contribute meaningfully to discussions and debates. Pre-class written assignments, quizzes or short class tests are useful in this regard. • The practice of concept mapping demonstrates a student's thinking skills and processing of information. The use of concept maps is an effective way to evaluate students' ability to integrate theory and practice as well as his/her competence in clinical judgement. • Refrain from allowing one "correct" answer per question. Utilise multiple viewpoints to "twist" the discussion with questions such as "what if?", "why?", "how?" Questioning should be non-threatening, and students should be motivated to "think aloud" (verbal thinking), reflect-in-action in order to recognise fallacies, assumptions and misunderstandings and have them corrected by feedback from peers/facilitator. • Reflective journal writing allow students to record critical incidents as they experience them to be later analysed, evaluated (reflection-on-action) and synthesised into a learning experience. • Electronic media provide opportunities for media blogs; simulated case studies to be completed on-line to reflect a student's knowledge, thinking and reasoning skills, as well as his/her decision-making skills. 	<ul style="list-style-type: none"> • Gerdeman et al. (2013) • Frith and Clark (2013) • Alfaro-LeFevre (2012) • Potgieter (2012) • Thomas et al. (2012) • Bruce et al. (2011) • Nielsen (2009) • Klopper (2009) • Williams et al. (2008) • Distler (2007)

Table 4 – (continued)	
<p>Strategic objective 2: The application of a variety of teaching–learning methods to improve thinking-, reasoning and problem solving skills</p>	Literature support
<ul style="list-style-type: none"> • Debates enhance the construction of logical arguments, and inductive and deductive reasoning skills allow identification of relationships, oral defence of propositions, recognition of assumptions and evidence. • Role plays provide opportunities for students to identify with emotions, challenges regarding behaviour and decisions to be made in acting out a simulated scenario. The discussion following the role play allows analysis, clarification of actions and decisions, evaluation and feedback on interpersonal and problem solving skills. Observation skills can be enhanced. 	
<p>Strategic objective 3: The accommodation of students' individuality and diversity of learning needs and styles</p>	Literature support
<p>Actions:</p> <ul style="list-style-type: none"> • Recognition of and respect for individual differences, talents, pace and methods of learning. • Get to know role players by being interested in each other's uniqueness, dreams and concerns; value individual ideas and contributions to encourage a spirit of teamwork and belonging, learn from each other. • Practice open communication. Listening allows discovering concerns and misunderstandings, and clarification of meanings. • Acknowledge own limitations; refrain from an attitude of being an expert, embrace the principle of life-long learning. • Set clear and fair expectations, consistence in assessment and discipline based on sound interpersonal relationships. • Encourage students to set their own goals, and to provide guidance and support in their quest for achievement. Appraise progress. • Encourage dialogue, reflection and questions; refrain from giving answers, facilitate reasoning skills to come to acceptable, logical conclusions; encourage inquisitive minds and the development of interpretive, analytical, evaluative, inferential and explanatory skills. • Recognise students' uncertainty and anxiety in unfamiliar situations; provide assistance, support and reassurance, withdraw progressively as their confidence increases. • Establish a climate of mutual respect and trust that allows students to discover, explore and offer opinions in an emotionally safe environment. <p>Encourage self-evaluation as a strategy for "internal development and self-regulation." Students learn to direct their learning on their own – mainly through learning from others and from trial and error.</p>	<ul style="list-style-type: none"> • Frith and Clark (2013) • Alfaro-LeFevre (2012) • Bos et al. (2011) • Papastavrou, Lambrinou, Tsangari, Saarikoski, and Leino-Kilpi (2010) • Williams et al. (2008) • Klopper (2009) • Distler (2007)
<p>Strategic objective 4: The facilitation of role players' active participation and accountability for learning to achieve fusion of theory and practice</p>	Literature support
<p>Actions:</p> <ul style="list-style-type: none"> • Facilitate a safe, open, non-threatening environment to enhance active participation. • Engage role players in setting goals, guidelines and rules of engagement as parameters for accompaniment. • Promote learning opportunities for all role players (further studies, in-service education sessions, on-the-spot teaching, in-house research); provide opportunities to share and disseminate newly acquired knowledge and insight. • Arrange workshops for professional nurses in clinical practice to enhance academic knowledge and exposure of educators to clinical procedures to facilitate competence and ease the integration of theory and practice. • Regular meetings to enhance interaction and cooperation between educators, clinical facilitators and professional nurses in the wards who act as facilitators in the clinical practice to ensure that students receive maximum clinical exposure. • Cooperation between accompanists ensures a "united front" in the execution of prescribed rules and disciplinary measures within the professional- and ethical–legal parameters. • Encourage continuous self-assessment, peer group and superior assessment and strategies for goal achievement. • Allocate students to specific professional nurses for accompaniment on a rotational basis and the strengthening of partnerships. Feedback per written report and post-conference debriefing to address concerns and suggestions for improvement. • Recognition and utilisation of role players' specific academic and clinical strengths. 	<ul style="list-style-type: none"> • Gerdeman et al. (2013) • Bruce et al. (2011) • Scully (2011) • Clynes and Raftery (2008)

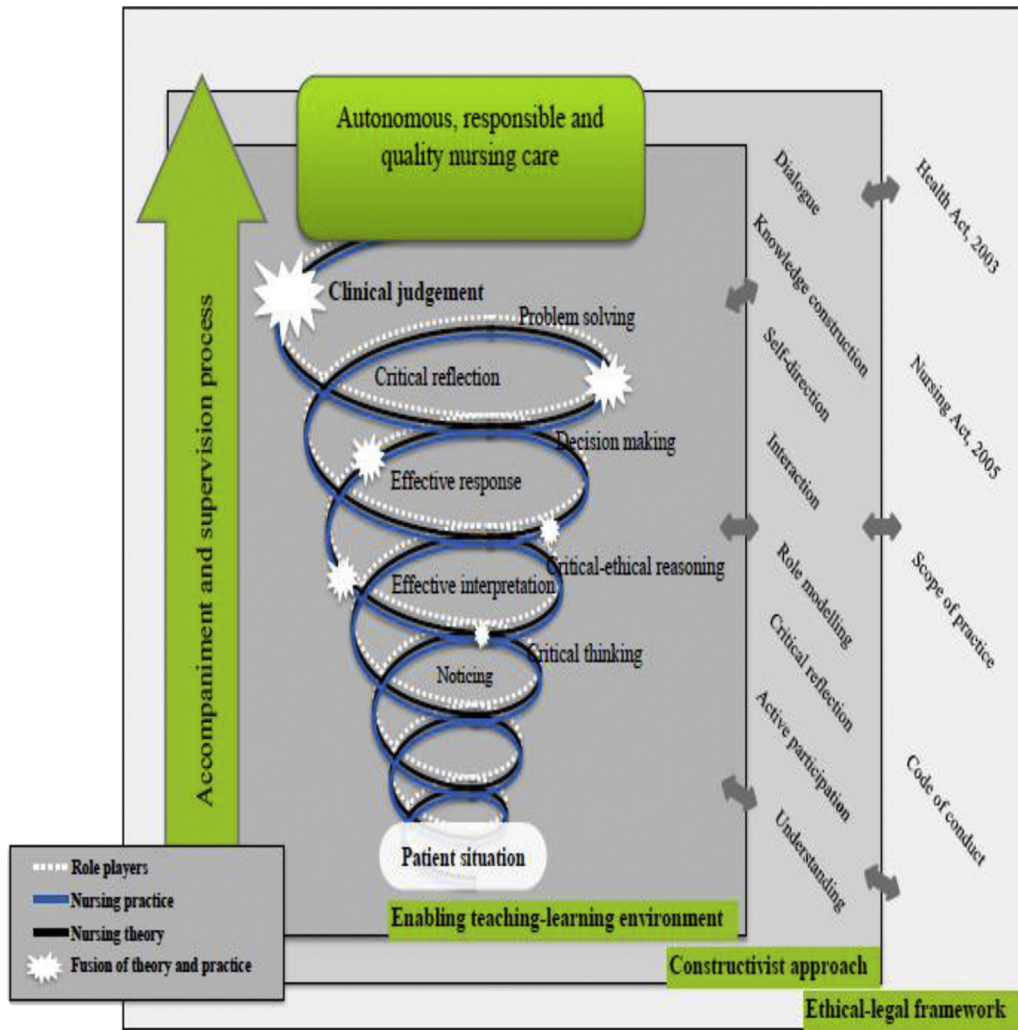


Fig. 1 – Diagrammatic presentation of the conceptual framework.

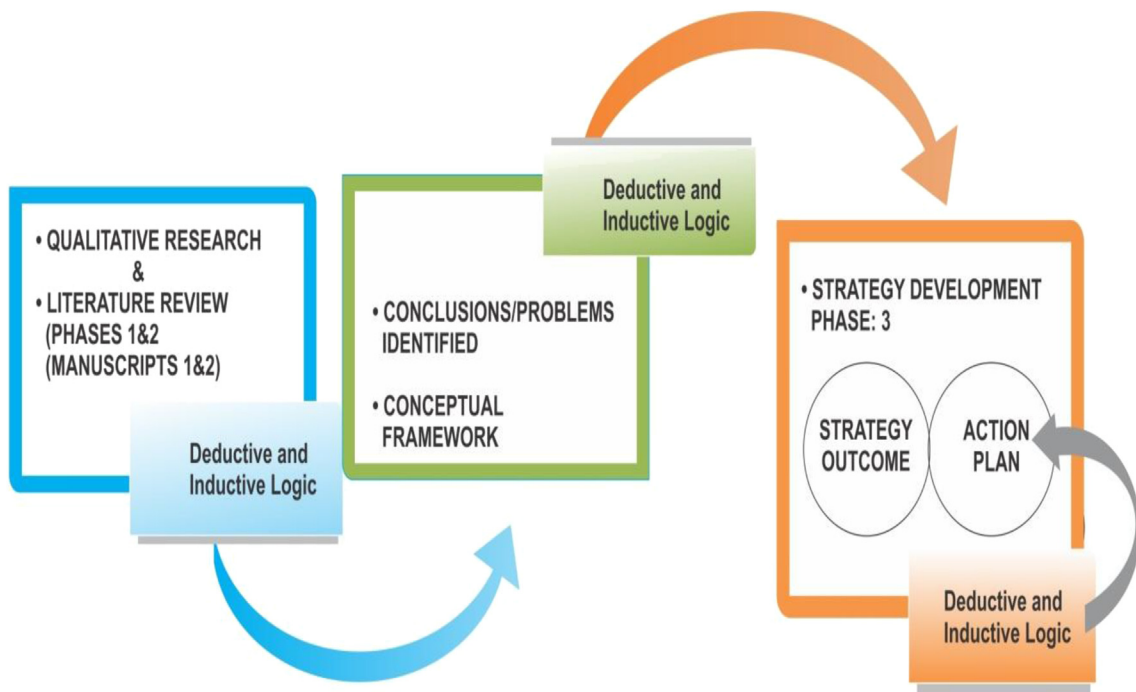


Fig. 2 – Graphical presentation of the method of strategy development (adapted from Knobloch, 2010).

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