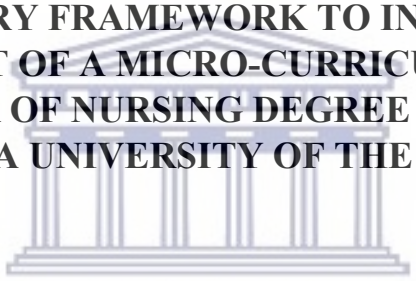
UNIVERSITY OF THE WESTERN CAPE

FACULTY OF COMMUNITY HEALTH SCIENCE

ADVISORY FRAMEWORK TO INFORM THE DEVELOPMENT OF A MICRO-CURRICULUM FOR A NEW BACHELOR OF NURSING DEGREE PROGRAMME OFFERED AT A UNIVERSITY OF THE WESTERN CAPE



Thesis submitted in fulfilment of the requirements for the degree Doctor of Philosophy in the School of Nursing, Faculty of Community & Health Sciences University of the Western Cape

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KEY WORDS

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DECLARATION

I, Lindy Sheryldene van der Berg, declare that **Advisory Framework to inform the development of a micro-curriculum for a new Bachelor of Nursing degree programme offered at a University of the Western Cape** is my own work, that it has not been submitted before for any degree or examination to any other university, and that all sources I have used or quoted have been indicated and acknowledged as complete references.

Name: Lindy Sheryldene van der Berg

Signed: 

Date: 10 December 2021

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ABSTRACT

Background: Curriculum review can ensure that nurses develop appropriate competencies to respond to market demand. Regular revision and updating of curricula are in line with recommendations of the WHO to scale-up health professionals' education and training. Introducing transformative changes in education provides an opportunity to review the strengths and weaknesses of the current systems. The nursing profession was the first of the health professions in South Africa to transform its legislative framework, which led to the development of new qualifications. More research is needed to track the progress of nursing students through their training and what they do after they qualify, in order to review and strengthen nursing programmes. This study forms part of a larger unpublished research study titled, 'Tracer study towards a framework for the improvement of the quality of undergraduate nursing programmes in Higher Education Institutions' (Registration number: 13/6/40).

Aim: The study's research aim was to trace the nursing graduates of 2016 from a university in the Western Cape in order to explore and describe whether the legacy Bachelor of Nursing programme prepared them for the world of work and to identify specific competencies they lacked which can inform the development of the micro-curriculum for a new Bachelor of Nursing programme. The first objective was to describe the graduates' views on: the quality of the undergraduate nursing programme in terms of its content, delivery and relevance to their world of work, as well as their perceived possible gaps in year levels and discipline specific theory and clinical competencies required in their world of work. The second objective was to describe the employers' views regarding the attributes, competencies and

competence of the graduates in their employ and areas for improvement in specific disciplines. Objective three was to explore and describe graduates and employers' views on their responses that were predominantly positive or negative in objective 1 and 2 above, and their views regarding specific competencies, which would improve the quality and relevance of the new Bachelor of Nursing programme.

The fourth objective was to describe the graduate's ranking of the importance of each component of the Bachelor of Nursing programme. The final objective was to develop and describe a framework, guided by the above objectives, which will be used to inform the micro-curriculum of the new Bachelor of Nursing programme.

Methods: A sequential explanatory mixed method approach was used in this study, which consisted of three phases. The first phase's purpose was to describe the experiences of graduates and employers with the legacy Bachelor of Nursing programme. The first quantitative phase allowed for the purposeful selection of participants for the study's second phase. The second qualitative phase explored why some of the findings identified in the first phase were significant to the programme. A third phase, which was based on the first phase, followed the exploration in the second phase provided further information to inform the development of the advisory framework.

Results: During phase 1, it became clear that the graduates' ratings of their experiences with the various aspects of the programmes, as well as the programme as a whole, ranged from good to excellent. Similarly, employers' assessments of the graduates' abilities ranged from competent to proficient. Significant findings of phase 1 were further explored in phase 2. During phase 2, graduates expressed mostly positive experiences, of which the clinical setting was a highlight for most.

Challenges included under-preparedness and limited clinical exposure in the first year of study. The graduates made recommendations for improvement to the new programme. Employers mostly perceived students as positive, and their professionalism was appreciated. The employers also indicated that graduates initially lacked confidence and competence related to management, but these were overcome relatively quickly. In phase 3 of the study, graduates indicated that modules are adequate in preparation for the role as a registered nurse. However, it is evident that modules should require students to conduct research and assist students in developing critical thinking and problem-solving skills. The availability and effective use of teaching material are very important in terms of educational resources. Graduates preferred the adequacy of clinical placements in preparation for the role of a registered nurse over the quality of the actual clinical supervision they received. They rated appropriateness of placements for linking theory and practice, as well as their orientation and learning opportunities in clinical placements as very important.

Conclusion: This review of the legacy Bachelor of Nursing programme has found that it adequately prepared graduates for the world of work. However, areas for improvement within the curriculum were identified and could be used to inform the development of the micro-curriculum of the new Bachelor of nursing programme.

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ABBREVIATIONS

Council on Higher Education	CHE
Community service practitioners	CSPs
Directorate of Nursing Services	DNS
Department of Health	DoH
Education and Training Quality Assurance	ETQA
Higher Education Institutions	HEIs
Higher Education Quality Committee	HEQC
Higher Education Qualification Sub-Framework	HEQSF
Institute of Medicine	IOM
Nursing Education Institutions	NEIs
National Qualification Framework	NQF
South African Nursing Council	SANC
South African Qualifications Authority	SAQA
World Health Organization	WHO

CHAPTER 1

ORIENTATION TO THE STUDY

1.1 INTRODUCTION

The curriculum forms the basis of education programmes, teaching and learning processes and resources, lesson plans and assessment (Parsons & Beauchamp, 2012). Often the words 'curriculum' and 'programme' are used together, but these two words are distinctly different. Oxford University Press (OUP) (2021c) defines a programme as 'a set of related measures or activities with a particular long-term aim' (definition 1), which corresponds with the definitions of the South African Council on Higher Education (CHE) (The Higher Education Qualifications Sub-Framework, 2013) and the South African Qualifications Authority (SAQA) (South African Qualifications Authority, 2017), which state that a programme comprises structured and purposeful learning activities that lead to a qualification. Furthermore, Oxford University Press (OUP) (2021a) defines curriculum as 'the subjects comprising a course of study in a school or college' (definition 1), while SAQA defines a curriculum as ' a statement of the training structure and expected methods of learning and teaching that underpin a qualification or part-qualification to facilitate a more general understanding of its implementation in an education system' (South African Qualifications Authority, 2017). The CHE acknowledges that curriculum can encompass many dimensions and defines it as '…the planned learning experiences that students are exposed to with a view to achieving desired

outcomes in terms of knowledge, competencies and attributes' (Council on Higher Education, 2013).

The word 'curriculum' comes from the Latin verb 'currere', which means to run, and the Latin noun 'curriculum' refers to a 'course' and a 'vehicle' (Van den Akker et al., 2009). The authors, therefore, suggest that in the educational context, the most obvious interpretation is 'a course for learning' which corresponds with the definition used by Hilda Taba (1962) (Van den Akker et al., 2009), namely a 'plan for learning' (p.9).

A programme has different levels of curriculum and products, viz. supra (international), macro (national, provincial, regional), meso (school, school jurisdiction), micro (classroom, teacher) and nano (student, individual) (Parsons & Beauchamp, 2012). One follows on the other, most often with a top-down approach (Van den Akker et al., 2009).

The influences on curriculum development are multifaceted and interrelated and include historical, ideological, cultural, political, economic, theoretical and pragmatic influences (Livingston et al., 2015). Livingston et al. (2015) state that this leads to different views and interpretations of programme content and processes. To overcome this, Albashiry et al. (2015), advocate a comprehensive planning partnership between the curriculum development team and all the various programme stakeholders (e.g. students, teachers and employers) to collectively envisage what the programme should be like (e.g. programme structure, content and

pedagogy), and how it should be developed and implemented. While these authors mention students, teachers and employers as stakeholders, the study focused on graduates and employers only as the stakeholders in the development of the micro-curriculum as both groups would be able to give valuable input with regard to the end product of the legacy programme. Inclusion of such stakeholders is crucial because the development of a curriculum reaches beyond the education institution to impact the entire community. Graduates would be unable to understand or meet the health challenges of society without an effective curriculum. Teachers, as stakeholders, seldom deal with the end product, namely the graduates after graduation, and can therefore, in the context of this study, not provide input regarding whether the graduates were adequately prepared for the world of work. The teachers did, however, form part of the curriculum development committee and were thus not excluded from the development of the curriculum as a whole.

There are different models of curriculum development being used, with different purposes, and the chosen model largely depends on the underlying philosophical view of education. Chapter 2 contains a detailed discussion of the different models. Social reconstructionists would argue that if the purpose of a curriculum is to bring about change in society, the curriculum has to respond to the needs of society.

Developing a programme and curriculum to enhance the quality of graduates, fit for the world of work, is amongst the top concerns for national education departments and any department within learning institutions such as universities. Various studies point out that employers often complain that the university

programmes do not adequately prepare graduates for work in the rapidly changing modern world (Armstrong & Rispel, 2015; Chan et al., 2017; Sarkar et al., 2016; Tran, 2015). Some studies report that curricula are often outdated or misaligned to the needs of the world of work (Armstrong & Rispel, 2015; Chan et al., 2017; Tran, 2015). The rapidly changing world of work is a result of, amongst others, economic changes, globalisation, technological advancements and innovations.

Another very dynamic ever-changing influence is that of health, which has an impact on all. According to Frenk et al. (2011), world-wide health systems are struggling to stay abreast as they are becoming costly and complicated, thereby placing additional demands on health workers due to outdated, fragmented and static curricula that produce ill-equipped graduates. The aforementioned authors recommend instructional and institutional improvements to develop a new generation of health professionals who would be best equipped to address present and future health demands (Frenk et al., 2011). The World Health Organization (2013) affirms this in their guidelines to transform and scale up health professionals' education and training by stating that curricula should be revised regularly to link the disease burden to training needs. The South African Nursing Council (SANC) advises that a curriculum review should be conducted within five years in order to meet the healthcare needs of local communities (South African Nursing Council, n.d.-b). While the university in the study does not have a policy regarding internal programme review, it does have an Academic Planning Unit established in March 1993 (University of the Western Cape, 2019). Amongst others, one of the functions of this unit is to conduct routine programme reviews

within the university in conjunction with the Senate Academic Planning Committee of this university (University of the Western Cape, 2019).

In the South African context, employers and graduates seem to echo the views of general and health profession education users, claiming that curricula are outdated and not responsive (Armstrong & Rispel, 2015; Bvumbwe & Mtshali, 2018; Mathumo-Githendu, 2018; Shongwe, 2018). Chapter 2 includes a detailed discussion of these studies.

1.2 BACKGROUND

There is consensus that there are insufficient and deficient healthcare providers in terms of the quality and relevance of their training in most countries (World Health Organization, 2013). According to Dr Chan, Director-General of the World Health Organization (WHO), efforts to scale up health professionals' education should address quality and relevance of health professionals to address population health needs (WHO, 2013). Dr Chan affirms the need for educational institutions to strengthen health professionals' competencies by revising and updating curricula regularly, linking the disease burden to the training needs to balance the skill mix and distribution of health professionals globally. Regular revision and updating of curricula are in line with recommendations in the first guidelines of the WHO to transform and scale-up professionals' education and training, (World Health Organization, 2013). These guidelines offer recommendations (Recommendation 4 specifically speaks to curriculum development, p.36) on how best to achieve the goal of producing graduates who are responsive to the health needs of the

populations they serve. The guidelines identified key considerations, which include regular reviews and updates of core competencies, periodic reviews of curricula, and programme delivery to determine if the programme prepares students to attain the core competencies needed, as affirmed by Dr Chan above.

Introducing transformative changes in education provides an opportunity to review the strengths and weaknesses of the current systems and to develop structures to monitor and evaluate the effects of these changes on the quantity, quality and relevance of new graduates (World Health Organization, 2013). Several initiatives and organisations, including the WHO, put forward the need for curriculum review to ensure that nurses develop appropriate competencies to respond to market demand. The Commission on Education of Health Professionals for the 21st Century, launched in January 2010 with the aim of identifying gaps and opportunities and offering recommendations for reform, has identified a series of changes of education processes necessary for health systems to effectively answer population needs (Frenk et al., 2011). In addition, in order to attain local relevant competencies which are globally connected, these competencies include a culture of critical enquiry, effective use of technology and should also generate a revitalisation of professionalism.

A report entitled 'The Future of Nursing: Leading Change, Advancing Health', published by the Institute of Medicine (IOM) in the United States of America (Institute of Medicine, 2011), states that the education nurses receive should prepare them better to deliver patient-centred, equitable, safe, high-quality healthcare

services. New competencies mentioned in this report are systems thinking, quality improvement, care management and a basic understanding of health policy and research. In addition to these new competencies, the report also highlights the need for the preservation of current competencies such as caring, human connectedness, ethics and integrity, and holistic, patient-centred care. These new competencies increased pressures on the education system and the curricula in the United States of America. South Africa's response to these international initiatives is discussed in detail later in this chapter. A lack of communication, data sources and information systems needed to align institutional capacity with market demands were reported by the IOM to be one of the four significant barriers to improved education systems. 'The Future of Nursing: Leading Change, Advancing Health' report (Institute of Medicine, 2011), similar to the WHO Guidelines of 2013, recommends the development of new approaches for evaluating curricula as well as teaching and learning strategies. The IOM further states that because these new competencies now define nursing practices, evidence to support the efficiency and effectiveness of teaching approaches used in nursing education is almost non-existent (Institute of Medicine, 2011). Therefore, the necessity for research on nursing education and the collaboration between education and the health system in identifying the competencies for developing the curriculum, are emphasised in the report. Once again, the need for evaluation of the current education reality is highlighted as a means of establishing whether the right mix of skills is being produced to meet the health system reform.

South Africa is also responding to the changing global needs, developments, priorities and expectations in health and health care (South African Nursing Council, n.d.-b). The nursing profession was the first of the health professions in South Africa to transform its legislative framework (International Council of Nurses, 2013) in response to the international call to scale-up the health professions. The South African Nursing Council (SANC) claims that nurses that meet their education standards will be equipped to meet present and future challenges, improve health and wellbeing as well as improve standards and quality of health care by working in a range of roles such as practitioner, educator and researcher. These nurses, as autonomous practitioners, will be able to provide essential care of a very high standard using the best available evidence and technology where appropriate in a rapidly changing environment (South African Nursing Council, n.d.-b). The nursing education and training standards developed by the SANC are aligned to the global standards developed by the WHO and reflect how services are likely to be delivered in future, incorporating National Health Priorities, the Re-engineering Primary Health Care and National Health Insurance. According to the Department of Human Resources for Health, the WHO stresses the development of global standards for initial education as a priority activity in strengthening nursing and midwifery services (WHO, 2009). Quality education programmes that meet a global standard are, therefore, an international imperative (WHO, 2009). The global standards for the initial education of professional nurses and midwives have five key areas which include programme graduates, programme development and revision, programme curriculum, academic faculty and staff, and programme admission (WHO, 2009). These global standards recommend that in terms of

programme curriculum design, nursing or midwifery schools conduct regular evaluations of curricula and clinical learning and include student, client, stakeholder and partner feedback (WHO, 2009).

Since the core purpose of health profession education is to meet the diverse health needs of the population, the quality of care, with a focus on person-centredness, lies at the heart of the Healthcare 2030 report (Western Cape Government Health, 2014). To meet this mandate, the production of competent and caring health professionals is an essential requirement. This report highlights the importance of strengthening partnerships between the Department of Health (DoH) and the Higher Education Institutions (HEIs). The Healthcare 2030 report identified strategic areas which are, amongst others, up-scaling and revitalising education, training and research as well as academic training and service platform interfaces. In this report, the DoH aims to engage the HEIs to align the training curriculum of undergraduate and postgraduate training of health professionals with the competencies required by the 2030 Service Plan.

Between 1997 and 2007, the health system in South Africa made several attempts to reduce the inequalities in access to care inherited from apartheid, and to shift from a hospital-based to a primary healthcare orientation. Based on this, severe concerns regarding the number of nurses registered to practice in South Africa and whether the skills taught are as relevant to the changing context and the country's health needs were raised (Breier et al., 2008). For this reason, these authors suggest

that more research is needed to track the progress of nursing students through their training and what they do after they qualify.

The Nursing Act of 2005 introduced several changes, including new categories of nurses, including its relevant scopes of practice to address the health needs of the population. This change, alongside changes in education legislation, led to the development of the National Qualification Framework (NQF), and the Higher Education Qualification Sub-Framework (HEQSF). This change implies that registered nurses will now be trained at the baccalaureate level and general nurses at diploma level. This study focuses on the baccalaureate level qualification. The new baccalaureate qualification is referred to as a Bachelor of Nursing degree, which leads to registration as a Professional Nurse and Midwife at SANC as per SANC regulation R174 of 8 March 2013. The new qualification is a significant change from the legacy qualification of registered nurses trained at a degree or diploma level (*Transforming Qualifications and Standards*, 2011). The legacy qualification leads to registration as a Nurse (General, Psychiatric and Community) and Midwife as per SANC regulation R. 425 of 22 February 1985. Both the degree and diploma programmes are of the same duration with the same content (*Transforming Qualifications and Standards*, 2011).

In 2011, the Minister of Health organised a Nursing Summit to address the critical issues faced by the nursing profession in South Africa. This led to the development of a Nursing Strategy for Education, Training and Practice after the Minister appointed a national task team to engage with the broader nursing fraternity by

means of a national roadshow. The Nursing Strategy addressed three essential aspects of nursing education and training, namely a National Policy for Nursing Education, a Clinical Education Model, and Student Status (South African National Department of Health, 2013). According to the International Council of Nurses (2013), these changes in nursing categories - education legislation for the new qualifications, the proposed clinical education model and student status - collectively contribute to the scaling up of nursing education in South Africa.

Concerning the introduction of new nursing qualifications, the SANC as the accredited Education and Training Quality Assurance (ETQA), mandated by the South African Qualifications Authority (SAQA) Act, will be responsible for the approval and quality assurance of all nursing education institutions (NEIs) and their training programmes. Qualifications currently delivered by NEIs are 'legacy qualifications' (R.425 of 22 February 1985), which will be phased out with the implementation of the new qualifications.

Noting that the new nursing qualifications are all situated in the Higher Education Sub-Framework (South African Nursing Council, n.d.-b), there have been ongoing discussions between the SANC and the CHE, which culminated in the SANC issuing Circular No. 6 of 2012 on a dual submission process. The rationale for this is that while there is agreement that all qualifications in the Higher Education Sub-Framework (including new nursing qualifications) are to be quality assured by the Higher Education Quality Committee (HEQC), such qualifications must meet the criteria for professional registration as laid down by the SANC. For this reason,

both the SANC and the CHE are working together to ensure a smooth accreditation process as per their respective mandates contained in both the Nursing Act, 2005 (Act No. 33 of 2005) and the Higher Education Act, 1997 (Act No. 101 of 1997 as amended).

In terms of the SANC Circular No. 7/2012, the date of offering legacy nursing qualifications was extended to June 2013. Given the issues mentioned above and the submissions from various stakeholders in respect to the period required by NEIs to prepare and implement the new nursing qualifications, the SANC resolved to extend the date of offering the legacy nursing qualifications further to 30 June 2015 (Circular No. 13/2014). Subsequently, the SANC requested the SAQA to reregister the legacy nursing qualifications for a further period of three years. This period is consistent with the notice that SAQA had reregistered occupational-related qualifications that are currently on the NQF for an additional period of three years; with a two-year teach-out period.

On 20 December 2016, the SANC issued Circular No.7 of 2016 which provided information on the phasing out of legacy qualifications and phasing in of the new qualifications. According to this circular, the last date of enrollment and registration of the legacy qualification leading to registration as a Nurse (General, Psychiatric and Community) and Midwife (R425 of 22 February 1985, as amended) will be 31 December 2019 (South African Nursing Council, 2016). Due to the above, there was no new intake for this programme from 2020. The fact that there was no intake from 2020 is in line with Government Notice No. 801 of 06 July 2016, which states

that the last enrollment date for first-time students into academic programmes that are not in alignment to the HEQSF was 31 December 2019. Circular No. 7 of 2016 further states that the start date for the enrollment of students for the new bachelor's degree (Professional Nurse and Midwife, as per SANC regulation R174 of 8 March 2013) were January 2020.

The School of Nursing at a university in the Western Cape has developed a macro curriculum for the dual submission in line with the curriculum framework as stipulated by the SANC in Circular No. 8/2013. A working group which consisted of nurse educators, clinical supervisors, students, practising professional nurses, the Directorate of Nursing Services (DNS) from the Provincial DoH, the Manager from the City of Cape Town representing primary healthcare facilities, and community representatives were responsible for developing this curriculum. The micro-curriculum for this new nursing qualification is in the process of being developed and will be rolled out incrementally for the year levels as the new programme is phased in.

1.3 PROBLEM STATEMENT

Nursing schools are currently preparing their micro-curriculums for the new Bachelor of Nursing programme which was first implemented from 2020. The preparation of the micro-curriculum is an opportune time to ensure that the new programmes are designed to meet the health needs of the population and are relevant to healthcare delivery and nursing practice. However, there is no evidence from graduates of the existing legacy qualification on whether the programme

adequately prepared them for the world of work. It would be valuable to incorporate into the development of the micro-curriculum for the new programme lessons based on the views of graduates of the existing programme and their employers regarding the strengths and weaknesses of the programme. In addition, there is no advisory framework to assist the planning of the new micro-curriculum at the School of Nursing in a university in the Western Cape selected for this study.

This study forms part of a larger unpublished research study conducted by Professor Daniels titled, 'Tracer study towards a framework for the improvement of the quality of undergraduate nursing programmes in Higher Education Institutions' (Registration number: 13/6/40). The larger study employed a multi-method evaluation design and adopted, as a theoretical framework, a modified version of the Success Case Method Evaluation Model created by Brinkerhoff and Dressler in 2003. The current study focused on the 2016 cohort with the aim of determining whether the graduates were adequately prepared by the legacy curriculum, for the world of work and to gain input from the graduates and their employers or supervisors on the development of the micro-curriculum for the new Bachelor of Nursing programme.

1.4 RESEARCH AIM

The study's research aim was to trace the nursing graduates of 2016 from a university in the Western Cape in order to explore and describe whether the Bachelor of Nursing programme prepared them for the world of work and to

identify specific competencies they lacked which will inform the development of the micro-curriculum for a new Bachelor of Nursing programme.

1.5 OBJECTIVES

1.5.1 To describe the graduates' views on (Phase 1):

1.5.1.1 The quality of the undergraduate nursing programme in terms of its content, delivery and relevance to their world of work.

1.5.1.2 Possible gaps in year level and discipline-specific theory and clinical competencies required in their world of work.

1.5.2 To describe the employers' views regarding the attributes, competencies and competence of the graduates in their employ and areas for improvement in specific disciplines (Phase 1).

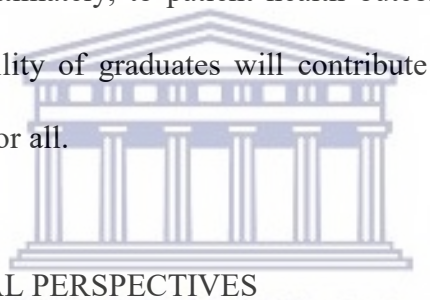
1.5.3 To explore and describe graduates and employers' views on their responses that were predominantly positive or negative in 1.5.1 and 1.5.2 and their views regarding specific competencies, which would improve the quality and relevance of the new Bachelor of Nursing programme (Phase 2).

1.5.4 To describe the graduate's ranking of the importance of each component of the Bachelor of Nursing programme (Phase 3).

1.5.5 To develop and describe a framework, guided by the above objectives, which will be used to inform the micro-curriculum of the new Bachelor of Nursing programme.

1.6 SIGNIFICANCE OF THE STUDY

The study responds to both the international and national call for programme and curriculum review for relevance, as pointed out earlier. The study will provide valid information which will serve as the basis for developing the micro-curriculum and ultimately the improvement of the nursing programme offered at university level as one that will adequately respond to the changing landscape of the healthcare system, nursing education and the burden of disease. The findings will assist in making the programme more relevant to the needs of the employer, the professional nurses' world of work and, ultimately, to patient health outcomes. Improvement in the quality and employability of graduates will contribute to the country's aim for improved health care for all.



1.7 PHILOSOPHICAL PERSPECTIVES

Paradigms are the philosophical perspectives (worldview) of the researcher about the nature of knowledge and how it is constructed (Creamer, 2018; Plano Clark & Ivankova, 2016b). Some examples of formal philosophies for research are positivism, post positivism, constructivism and pragmatism (Plano Clark & Ivankova, 2016)

Guba and Lincoln (1994), as cited by Creamer (2018), identified 4 dimensions to differentiate paradigms, namely ontology, epistemology, methodology and axiology. According to Creamer (2018), ontology relates to the views about

whether the nature of reality is singular or multiple, knowable or never really knowable.

Epistemology refers to the views about the relationship between the researcher, reality and the participant and what inferences are credible or acceptable (Creamer, 2018). In other words, how the researcher understands reality and how knowledge can be constructed.

Creamer (2018) defines the methodology dimension of a paradigm as strategies for generating and justifying empirical knowledge. In other words, the researcher's philosophical beliefs will influence the design of the study instrument(s), data collection, data analysis and interpretation.

Axiology, as the fourth dimension, according to Creamer (2018), refers to the role of values in social inquiry. In other words, the purpose of values in empirical research according to the researcher.

Plano Clark and Ivankova (2016) state that there are many different views about research philosophies, their relationship to individuals and their role in research practice. The authors cite Maxwell (2011) who argued that researchers should adopt an approach he coined, namely *bricolage* (French for DIY projects). Maxwell (2011), according to Plano Clark and Ivankova (2016), advocate that the researcher views the philosophical perspectives as practical tools to be carefully assembled into a toolkit of perspectives and assumptions that most fit the researcher's personal

context and particular research situation. This proposal resonates with the pragmatism philosophical view as to "what works" for specific research problems and questions or objectives. The methodology is determined and guided by the research questions and the importance of inferences drawn from the response to those questions (Plano Clark & Ivankova, 2016).

Based on the above arguments regarding philosophical perspectives, the researcher, in terms of ontology for the purpose of this study, avoids the nature of truth and reality and places the emphasis on what works. Furthermore, truth and knowledge are always uncertain, tentative and changeable over time. Knowledge is context specific and emotions and opinions are every bit as real as the physical world.

In terms of epistemology. the researcher believes that knowledge about realities is constructed with individuals. In terms of the methodological dimension, the researcher believes in the pragmatic perspective as stated above. And in terms of axiology, the researcher believes that her values and reflexivity cannot be separated from the research. The researcher, for the purpose of this study, is thus situated in both the constructivist and pragmatic paradigms, with a stronger focus on pragmatism and acknowledges that this stance may change in future.

Pragmatism forms a strong foundation for mixed methods research (Creamer, 2018; Plano Clark & Ivankova, 2016). Pragmatism is a practical philosophy that mainly considers what works in a certain situation or for a specific set of research objectives (Creamer, 2018). According to pragmatists, operational decisions,

rather than philosophical assumptions, should drive operational decisions on how to conduct research. The emphasis on method flexibility is one of the ways that pragmatism provides a comfortable foundation for a diversity of approaches to research (Creamer, 2018). Plano Clark and Ivankova (2016) states when mixed methods is used as a foundation, researchers emphasize the importance of the conclusion drawn in response to the research questions for guiding methods decisions, in other words, utilising "what works". Pragmatism is a philosophy that the researcher adopted and utilized to guide and shape the decisions about the nature of the mixed methods research and how it was conducted (Plano Clark & Ivankova, 2016).

1.8 OPERATIONAL DEFINITIONS

i) **Curriculum** entails what the CHE (Council on Higher Education, 2013) defines as, '…the planned learning experiences that students are exposed to with a view to achieving desired outcomes in terms of knowledge, competencies and attributes. Micro-curriculum refers to the instruction plan and learning and teaching materials of the programme (Parsons & Beauchamp, 2012). For this study curriculum refers to the Bachelor of Nursing legacy curriculum, according to SANC Regulation 425 and the new Bachelor of Nursing curriculum according to SANC Regulation 174. Legacy Bachelor of Nursing programme in this study refer to the nursing qualification according to SANC Regulation 425.

ii) **Programme** refers to 'A purposeful and structured set of learning experiences that leads to a qualification', as stated by the CHE (Council on

Higher Education, 2013). For this study programme refers to the Bachelor of Nursing legacy programme, according to SANC Regulation 425 and the new Bachelor of Nursing programme according to SANC Regulation 174. New Bachelor of Nursing programme in this study refers to the Bachelor of Nursing qualification according to SANC Regulation 174.

iii) **Qualification** refers to a registered national qualification consisting of a planned combination of learning outcomes which has a defined purpose or purposes, intended to provide qualifying learners with applied competence and a basis for further learning and which has been assessed in terms of exit level outcomes, registered on the NQF and certified and awarded by a recognised body (South African Qualifications Authority, 2017). In this study, qualification refers to the legacy and new Bachelor of Nursing qualifications, as registered with the South African Qualifications Authority.

iv) A **framework** is 'a basic structure underlying a system, concept, or text' (definition 2) according to the Oxford University Press (OUP) (2021b). For this study, the framework will refer to the development of an advisory structure for the micro-curriculum of the new Bachelor of Nursing programme.

1.9 METHODOLOGY

This study used a mixed-methods and multi-phased design. The priority of the design was quantitative, meaning that quantitative methods were the most crucial aspect of data analysis in the study. Implementation in this study used a sequential explanatory mixed-methods design. The goal with the first phase was to describe

the experiences of graduates and employers with the legacy curriculum and to allow for purposefully selecting participants for the second phase of the study. The second phase explained why certain factors, tested in the first phase, may be significant for the programme. Phase 3 focused on the graduates' ranking of the importance of each component of the legacy Bachelor of Nursing programme. Chapter 3 discusses the detail of the methodology followed in this study. Integration of data happened during phases 2 and 3, as described in Chapters 5 and 6.

1.10 OUTLINE OF THE THESIS

Chapter 1 provides the background to the study. It highlights the problem statement, the study's significance and its aim and objectives.

Chapter 2 outlines the conceptual framework that forms the basis of the study, and a review of the relevant literature for the study.

Chapter 3 explains the methodology used in the study.

Chapter 4 provides a presentation and discussion of the quantitative findings of the study.

Chapter 5 provides a presentation and discussion of the qualitative findings of the study.

Chapter 6 provides a presentation of the conjoint analysis findings of the study.

Chapter 7 provides a discussion of all the findings as they relate to one another and presents the advisory framework developed to inform the development of the micro-curriculum.

Chapter 8 outlines the limitations of the study and gives recommendations for further research.

1.11 SUMMARY

From the background presented in this chapter, it becomes evident that the legacy micro-curriculum needs to be reviewed to ensure its relevance to the graduates' world of work, through the development of an adequate socially responsive micro-curriculum for the new baccalaureate programme. Graduates who completed the legacy programme and their employers who experienced the end product of the programme are therefore the ideal stakeholders in the context of this study to inform the development of a framework for a new micro-curriculum.

CHAPTER 2

CONCEPTUAL FRAMEWORK AND LITERATURE REVIEW

2.1 INTRODUCTION

This chapter comprises a discussion on the conceptual framework and relevant literature that informed the study. It starts with an explanation of the ideological views that inform one's view of the curriculum before discussing the actual framework that informed this specific study. A discussion of all relevant literature with regard to the objectives that support this study follows the framework discussion.

2.2 CONCEPTUAL FRAMEWORK USED TO INFORM THE STUDY

The basis of curriculum development is the philosophical approach underpinning the development (Bruce & Mtshali, 2017). The authors state that developers of curricula often draw on more than one education philosophy as well as theories of the discipline and learning theories. This chapter will discuss only a few of these philosophies while highlighting the primary philosophical approach of this study.

Bruce and Mtshali (2017) summarise some of the traditional and contemporary philosophies, namely idealism, realism, naturalism, humanism, pragmatism, existentialism and liberalism. The researcher currently grounds herself in the philosophy of pragmatism because she values experience as a contributor to a better organised environment. Practical value and consequences define the truth and meaning of ideas (Bruce & Mtshali, 2017).

For the purpose of developing a curriculum, developers should consider curriculum theories in order for learning to take place (Bruce & Mtshali, 2017). The authors discuss specific theories, namely the liberal, experimentalism, critical and constructivist theories. The researcher chose to focus on the experimentalism theory, which speaks to her philosophical perspectives as discussed in Chapter 1. Bruce and Mtshali (2017) state that this theory is based on the believe that education cannot be seperated from the social context and are rooted in pragmatism. The central feature of pragmatism as the educational philosophy that underpins this theory is that the truth and meaning of ideas is defined according to their practical value and consequences, the educational objective being a better organised environment that recognises the value of experience (Bruce & Mtshali, 2017). The researcher believes that since experiences vary in nature and the way people process experiences, the purposeof the curriculum is personal growth of the student (Bruce & Mtshali, 2017).

Although curriculum models are essential for systematic and practical curriculum design, as stated by Bruce and Mtshali (2017), it is not compulsory to use them. The authors discuss three generic curriculum models, namely the product (behavioural objectives), competency (outcomes) and process models.

The product model focuses on the end product and is based on the educational viewpoint that learning is a process of changing the behaviour patterns of people (Bruce & Mtshali, 2017). This model, first described by Tyler (1949) as stated by Bruce & Mtshali (2017), became the most popular model to design curricula,

although it was widely critiqued. Some of Tyler's critique and an alternative will be discussed later in the chapter.

The use of the competency-based model is increasingly being applied in health sciences programmes, especially nursing (Bruce & Mtshali, 2017). The authors state that nursing is a practice-based profession where safe practice requires competence. This type of curriculum uses competencies as the organising framework for developing the curriculum (Frank et al., 2010, as cited in Bruce & Mtshali, 2017). While the researcher does not refute the importance of competence in nursing, she has a preference for the process model. Bruce and Mtshali (2017) state that the process model is an alternative to the product model. Instead of promoting teacher centredness as in the product model, the process model promotes learner centredness. This model speaks to pragmatism, as mentioned in Chapter 1 and above, where students construct their understanding based on e experience and is characterised by reduced content that is focused and organised around current themes, issues and real-life problems.

Despite criticism of Tyler's principles for designing a curriculum, his work has impacted nursing education (Uys & Gwele, 2005). He provides a framework for educators to help them find direction in the practice of curriculum development by questioning their practices, principles and guidelines to transform rhetoric into a theory of practice. Although the Tyler model for curriculum development formed the basis of health profession curriculum development, it was widely critiqued (Steketee et al., 2013). These authors argued that the requirement for tight

behavioural definitions of learning objectives leads to an inability to capture elements of the curriculum that are of great importance in the health professions such as the development of appropriate norms and professional values, including clinical reasoning abilities and professional judgement. Bruce and Mtshali (2017) agree with these authors by stating that in addition to those objectives mentioned above, cognitive learning is highly valued at the expense of social learning. Steketee et al. (2013) claim that there remains a lack of a coherent, contemporary theoretical framework to guide the development, review and renewal of health professions curricula. They propose that a tool is needed that will enable educators to acknowledge and address the complexities of the rapidly changing nature of healthcare needs to produce graduates that can meet these needs.

Steketee et al. (2013) suggest the use of the four-dimensional curriculum development framework of Bernstein (1971) and Ball (1990), which speaks powerfully to reconstructionism and student-centred curriculum development. According to Steketee et al. (2013), Bernstein and Ball identified these four elements as "message systems", each conveying a message of issues that matter in the curriculum. Bernstein identified three message systems: knowledge, pedagogy and assessment, while Ball (1990) added a fourth, that of the organisational dimensions of curriculum.

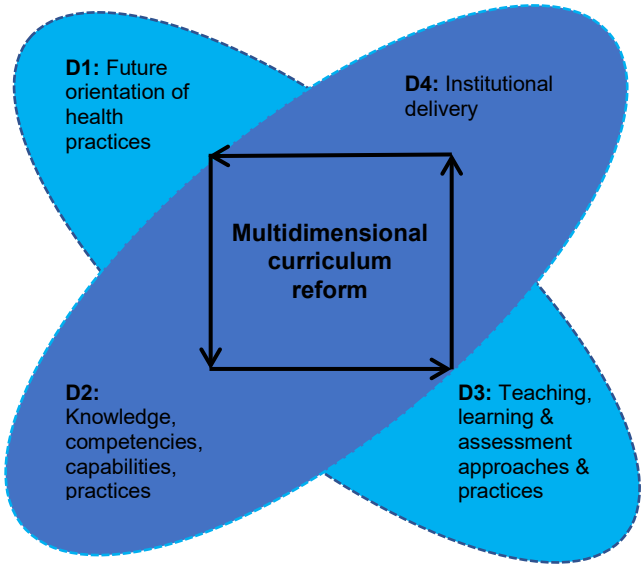


Figure 2.1: Adapted four-dimensional curriculum development framework

In Figure 2.1 above, Dimension 1 focuses directly on future-oriented aspects of health policy and its implications for educating a health workforce capable of practising in contemporary models of care besides considering effectiveness and compliance. This dimension speaks to the current global health educational reform, more specifically with the current nursing education reform and the implementation of the new nursing qualification in South Africa. In line with global education reform, staff and students of the university where this study was conducted, were involved in discussions, debates and workshops regarding curriculum transformation, including curriculum decolonisation. The purpose of stakeholder involvement is to integrate the voices of staff and students in the goals set for changes at university, classroom and curriculum levels. Dimension 1 was not investigated as part of this study.

Dimension 2 refers to specific characteristics that a health professional should possess, for example, knowledge, skills and attributes. In this study, feedback from

employers will be used to deduce these characteristics and link them to the expected learning outcomes and specific competencies required for the new R174 qualification.

Dimension 3 is concerned with the actual design of learning and assessment activities. The findings of the two previous dimensions inform this dimension and will be the most important as the aim of this study is to inform the micro-curriculum of the new programme. There is a need to consider the particular vision of health care (its strengths and limitations) and the most appropriate teaching and learning approaches required to meet the expected level outcomes. These approaches feed into the design of learning activities. This finding will allow the practical activities of design to be directly accountable to the broader policy and ideological questions concerning the kind of health system produced through the education of future professionals.

Finally, Dimension 4 allows systematic questioning about how and why curricula are shaped and constrained by local institutional circumstances. Examples include the mix of entry levels; prior curriculum histories and precedents; local institutional politics; the effects of urban, regional and rural circumstances; the particular histories of relationships with the local health bureaucracies; and so on. Steketee et al. (2013) claim that Dimension 4, reflexively and systematically, loops back to the 'big picture' of Dimension 1, imbuing it with local colour and flavour. This information for the current study will be derived from the employer and relevant literature but is not an area of investigation for the outcome of this study.

The four-dimensional curriculum development framework is reasonably simple yet it still accounts for the complex, dynamic and collaborative work required for conceptualising curriculum reform across multiple levels of activity. It provides a template on how curriculum development in the health professions can be approached comprehensively, in order to accommodate the nuances of different educational contexts. The proposed framework for this study is a four-dimensional theoretical tool for the identification and systematic interrelation of priorities and directions, possibilities and constraints, specific and generic capabilities, outcomes, academic standards and assessment practices in health professional education. This framework addresses factors that shape the design of health professional curricula and is, therefore, the ideal conceptual model for this study. In this study the framework was used to present the findings and develop the advisory framework to inform the development of the micro-curriculum of the new Bachelor of Nursing programme.

2.3 LITERATURE REVIEW

A literature review creates a picture of what is known about the research topic through a comprehensive review of the available literature (Waterfield, 2018). The following electronic databases were searched during the literature review: Google Scholar, Taylor & Francis eJournals database, ERIC (EbscoHost), Academic Search Complete, Emerald eJournals, Biomed Central (BMC), Cochrane Library Pubmed, Sage Journals Online (SJO), ScienceDirect and Wiley Online Library. Literature was searched using keywords and phrases such as tracer studies, graduate tracer studies, nursing graduate tracer studies, alumni research, graduate

employability, employability studies for nursing graduates, nursing graduates fit for world of work, perceptions of newly qualified nurses, employers' expectations of nursing graduates, stakeholder's perspective on graduate employability, amongst others. This section of the chapter presents a discussion on the preparedness of nursing graduates for the world of work and employers' views on the competence of graduates and improvement of the programme.

A search of relevant literature reveals that several studies have been conducted by HEIs to establish how their graduates are coping in the job market (Anderson et al., 2015; Chan et al., 2017; Chang & Daly, 2012; Cuadra et al., 2019; Dlamini et al., 2014; Dudley et al., 2015; Milton-Wildey et al., 2014; Odland et al., 2014; Thakur et al., 2013). In contrast to the significant number of international studies which focuses on nursing graduates, a limited number of studies exists within the South African context (Shongwe, 2018; Zaayman, 2016).

2.3.1 **Purpose and value of graduate tracer studies**

Graduate tracer studies are commonly used in educational and training programmes as a research tool and aid in identifying the programmes' strengths and limitations (*What Is Tracer Study?*, 2020). The ILO Regional Skills Programme (2015) states that tracer studies or graduate surveys are the most valuable type of survey conducted by educational and training institutes. Graduate surveys give information regarding graduates' whereabouts after they receive their degrees, and can provide useful information for evaluating a certain institution's programme(s), which can

then be used to help the institution improve further (ILO Regional Skills Programme, 2015).

Because labour market factors influence the kind of skills required, institutions must be proactive in introducing and managing desired change through the use of graduate tracer studies which provide a solid foundation for purposeful improvement of both content (curricula and related activities) and delivery (learning and teaching) of their educational services (Tanhueco-Tumapon, 2016). Du (2019) states that a tracer study is carried out to track the progress of its graduates and to improve institutional processes in order to meet educational goals and meet the community's expanding health needs, which speaks more to the purpose of the graduate study for this study. In addition, Calpa et al. (2021) state that a new type of tracer study has emerged whereby more individual educational institutions are conducting tracer studies. The most essential feature of such institutional tracer studies is generally feedback for curriculum development and other areas of improving study environment and services (Calpa et al., 2021).

The above purposes and value are widely supported by numerous previous studies (Badiru & Wahome, 2016; Cuadra et al., 2019; Du, 2019; Guiamalon, 2021; Hariyanto et al., 2021; Quinto & Posada, 2020; Sanchez & Diamante, 2016, 2017; Thakur et al., 2013).

2.3.2 **Preparedness of nursing graduates for the world of work**

Several studies (Dudley et al., 2015; Milton-Wildey et al., 2014; Odland et al., 2014; Shongwe, 2018; Tran, 2015) suggest that graduates generally feel ill-prepared for the world of work.

A study investigating the experiences of newly educated nurses working in internal medicine and surgical wards in a hospital in Norway determined that the participants felt unprepared and overwhelmed by responsibility (Odland et al., 2014). This study was a phenomenological hermeneutic research study in which participants were asked to recount their initial work experiences using a narrative approach. The feeling of unpreparedness was as a result of the discrepancy between the ideals and knowledge gained during their nursing training and that of the routine assigned hospital tasks, which focused mainly on medical diagnosis and treatment instead of holistic nursing care.

Dudley et al. (2015) relate similar findings in their study regarding whether the medical curriculum at the University of Stellenbosch in South Africa adequately prepares their medical graduates. Although their graduates indicated that they felt adequately prepared, they also reported their inability to apply knowledge and skills in the working environment. These graduates indicated specific knowledge and skills that need to be integrated, taught practically with problem-based teaching (Dudley et al., 2015).

Similarly, (Odland et al., 2014), and (Shongwe, 2018) explored the perceptions of newly qualified nurses regarding their readiness for work at an academic hospital in Gauteng and reported that initially, the participants felt overwhelmed by the professional responsibilities of their role as registered nurses, but subsequently developed professionally and were less overwhelmed.

The researcher believes that the same applies to graduates in the context of this study. Graduates become disillusion when they step into the world of work as the expectations of task focused and efficiency tend to shift the focus away from holistic nursing care. The ideals and importance of holistic nursing care become ingrained in students during their training. However, in the world of work, they need to adjust to different expectations, which would then lead to them feeling inadequate and ill-prepared for the profession.

Another study conducted at two Australian universities, one urban and one regional, examined nursing students' and recent graduates' satisfaction with their education in preparation for the world of work, established that 54% of graduates thought that the programme only partly prepared them for work as a nurse (Milton-Wildey et al., 2014). The graduates indicated that the focus on research and writing skills was not beneficial in preparing them for their role as a professional nurse. The authors argue that the fact that the graduates did not value reflection and critical thinking skills, which they feel are integral in understanding and utilising findings from research, may have implications for the health sector. They state that quality outcomes depend on the ability of practitioners to implement standard evidence-

based protocols and models of care guidelines. However, they also concede that possibly graduates do not prioritise these skills initially, but they may be of value later as they gain experience and confidence.

The graduates in the study by Dudley et al. (2015), indicated that evidence-based health care is essential although they needed more data analysis skills and seemed to struggle with accessing information needed for evidence-based care. They also had difficulty in applying evidence-based care in the practice or work environment. More clinical skills are often required when learning to cope with the clinical workload during the transition from student to registered nurse. Students mainly learn clinical skills during clinical education sessions of a programme and clinical placements in a practice environment.

Milton-Wildey et al. (2014) used a descriptive cohort mixed-methods design in which the qualitative data highlighted concerns with the quantity and quality of clinical education, similar to the medical graduates in the study of Dudley et al. (2015) and Shongwe (2018). Graduates expressed a lack of satisfaction with the number of clinical hours and type of clinical training in their programme. The graduates in their study commented on their belief about the allocation of more clinical hours for developing nursing skills within the programme.

Students are currently expected to complete 4000 clinical hours over the four-year legacy Bachelor of Nursing programme, divided among the different nursing disciplines. However, this study indicates that students struggle to meet the minimum of 4000 clinical hours. The clinical hours in the new Bachelor Nursing

programme (Regulation174) have been reduced to a minimum of 1830 hours (South African Nursing Council, n.d.), which is contrary to the needs of students in a study by Milton-Wildey et al. (2014). It would, therefore, be essential to see whether the graduates in the legacy Bachelor of Nursing programme share the sentiments of the findings in Milton-Wildey et al. (2014).

Milton-Wildey et al. (2014) and Shongwe (2018) both report that the participants indicated that the clinical environment was unsupportive due to either the attitudes or capacity of hospital staff and clinical facilitators. Similar to the context in this study, both the universities in the study conducted by Milton-Wildey et al. (2014) employ clinical facilitators, known as clinical supervisors in this study's context, to supervise and support students in achieving their objectives for the clinical placement.

Over and above the supervision and support role, the clinical facilitators in the study conducted by Milton-Wildey et al. (2014) also made arrangements with the clinical staff regarding the placement experience for each student, whereas in the context of this study, the university employs academic officers who deal with this aspect of clinical placement. These academic officers are often not registered nurses, hence they do not have any clinical background to rely on when liaising for clinical placement of students; and they also do not have any face-to-face contact with staff in the clinical facilities. However, the researcher does in no way claim that a registered nurse should be the appropriate person to arrange clinical placements.

Milton-Wildey et al. (2014) state that because their facilitators are not members of the clinical site team, the extent to which they are able to achieve a high degree of collaboration would be limited and is likely to vary across placement sites. The researcher would, therefore, agree that in the context of this study the clinical supervisors would be in a better position, in terms of being familiar with the clinical facility, to collaborate with staff in clinical facilities with regard to clinical placement and a conducive clinical learning environment.

Milton-Wildey et al. (2014) conclude that this raises three key issues, namely the adequacy of clinical hours in the programme, facilitation and support for students during placement, and recognition of skills and financial loss experienced during clinical placement by self-supporting students. These three issues are similar in the context of this study. The majority of students in this legacy study are recipients of a bursary when studying, but for the older, and/or married graduates, this might not be sufficient in terms of sustaining a family while studying.

Another study conducted in Swaziland explored the stakeholders' perspectives on the readiness of nursing graduates for the workplace, and found that the new graduates themselves had mixed responses to this question (Dlamini et al., 2014). Some felt that they are competent but lacked the confidence to make decisions or perform clinical skills, while others felt that they had nothing to offer (Dlamini et al., 2014). In this regard, Milton-Wildey et al. (2014) suggest that the programme should consider the learning requirements needed to maximise the integration of theory and skill development in the clinical environment, which has limited staffing

and resources. In the South African context, the clinical learning environment and the use of clinical supervisors are used to address the issue of praxis.

In a study conducted at a secondary academic hospital in the Western Cape on professional nurses' experiences of their community service placement, conflicting results were also noted (Zaayman, 2016). The community service placement is normally the year after completion of the programme. The author reports that there is a perception that the undergraduate nursing programme does not prepare professional nurses for the responsibilities of a community service practitioner. However, the author also states that some participants in this study expressed that the educational institution prepared them sufficiently for the transition from student to community service practitioner and felt that they were ready for work as registered nurses on graduation from the educational institution (Zaayman, 2016). The author also states that the inadequacy of student preparation, especially with regard to clinical skills, has been a longstanding concern reported in the literature and was confirmed in her study. She claims that the curricula emphasis was on theory and not on clinical care (Zaayman, 2016). To this end, the author agrees with Dlamini et al. (2014) who suggest that at least 50% of the nursing curriculum should focus on clinical practice. This raises the question of whether this will increase the graduates confidence and competence and decrease the "reality shock" experienced by newly qualified graduates as anticipated by Dlamini et al. (2014). The SANC, prescribes in the new Bachelor of Nursing qualification framework (R.174), that at least 50% of the notional learning hours of nursing modules should be dedicated to work integrated learning (South African Nursing Council Bachelor's Degree in Nursing and Midwifery Qualification Framework, 2014).

In contrast to the aforementioned findings, a small study conducted at a regional university in New South Wales, Australia, found that the majority of graduate students indicated that they felt well prepared for the workforce and that they valued all aspects of the conceptual framework of the curriculum (Anderson et al., 2015). This is similar to the findings of two studies done in the Philippines at two different universities where the nursing graduates stated that the institution had equipped them to operate as required for an entry-level practitioner with highly developed interpersonal relationship skills, and that their motivation to perform efficiently and effectively was the best they had accomplished in studying thus far (Du, 2019) and the graduates felt that their emotional and professional growth was aided by the Bachelor of Science in Nursing degree (Hipona et al., 2021) respectively. Even with the caution of generalisability, the question still arises as to why these findings would differ so vastly from that of other studies. It could possibly be that the study focused on students' perceptions and values of underpinning themes of their existing Bachelor of Nursing curriculum conceptual framework, thereby indicating the graduates' interest and voice in curriculum development.

Anderson et al. (2015) state that although previous literature calls for student consultation, there is limited evidence that this is indeed happening in the practice of curriculum development. These authors have identified the need for further research into how best to support student involvement in curriculum development in future. This study aims to contribute to this area of demonstrating how graduates could inform the curriculum development.

2.3.3 **Employers' views on the competence of graduates and programme improvement**Studies indicate that employers feel that nursing graduates are not ready for practice after graduating due to inadequate preparation and lack of support from employers upon service entry (Chan et al., 2017; Chang & Daly, 2012; Dlamini et al., 2014).

In Swaziland, public and nursing stakeholders are questioning NEIs about the perceived unpreparedness of graduates which is leading to a decline in the quality of the nursing care provided (Dlamini et al., 2014). For many years this has also been the case in South Africa. This perceived unpreparedness is, however, acknowledged only based on perception as limited empirical research has been conducted in the South African context to support this perception.

Therefore, there is an urgent need to conduct more graduate evaluation studies in South Africa. Dlamini et al. (2014) also point out the scarcity of graduate studies about graduates' experiences, level of competency and readiness for practice in Sub-Saharan Africa. The authors maintain that nurses are the glue that keeps health systems together.

In a qualitative study conducted by Dlamini et al. (2014), nurse educators, unit managers, nurse leaders and registered nurses from the clinical practice setting participated in focus group discussions. Participants expressed their opinion that new graduates did not have the clinical skills and professional attributes required even though they possessed adequate theoretical knowledge. This unpreparedness seems to be in line with the current experience in South Africa. The new graduates,

in the study by Dlamini et al. (2014), identified that they needed support in the first few months to build their confidence and to familiarise themselves with the work environment. Once again, this theme strongly resonates in the South African context, as new graduates are often expected to take charge from the first day of entering the work environment, even as CSPs[1]. Taking charge from the onset is contradictory to the purpose of the community service year, where the ideal would be for the graduates to build their confidence and become familiar with the work environment under the guidance of a more senior professional nurse.

Dlamini et al. (2014) established that attention was more on theory than on the clinical component of the programme. The study also reports that graduates, as students, would miss clinical placements in order to do assignments or study for tests. They would either leave the clinical placement early or not show up at all, as they knew that there would be no severe repercussions for missing clinical placement, and that the theory aspect weighs heavier towards the final mark.

The problems encountered in the above study are remarkably similar to those encountered at the university in this study. A recent study, at the same university where this study was conducted, found that most students only attend between one and four lectures a week (Swanepoel et al., 2021). The study was conducted among first-year microeconomics students. Two-thirds of students attended only between one and four lectures over a three-week period. Almost all the top reasons for missing lectures were academically related. Higher attendance was associated with

[1] Community service practitioners

a higher mean final mark and pass rate in the module tests and exams. Students who attended at least five out of eight lectures scored a pass rate of 90% and above. Higher attendance was associated with a higher mean final mark and pass rate, according to researchers (Swanepoel et al., 2021) The researchers had some recommendations on how to address the findings of their study. One option is to experiment moving away from the traditional lecture structure. As digital technology is available, students will increasingly learn through flexible online learning. Given low class attendance on Friday afternoons, there may be a need to adjust the timetable. Universities can also encourage students to do online assessments instead of the traditional on-campus sit-down assessments which require more time (Swanepoel et al., 2021).

The School of Nursing at the university in this study has made numerous efforts to correct these problems without much success. For example, students do not qualify to sit for a theoretical exam if they did not meet at least 80% of the current year level's clinical hours requirements, and can therefore not progress to the next year level. In addition, students must also meet 100% of the previous year level requirements, implying that a third-year student would need at least 80% of the third-year level clinical hours and 100% of the second-year hours to progress to the fourth year, even if passing all modules for the third year. However, this rule is not strictly enforced because students appeal to the Faculty or the Student Representative Council (SRC) and often, for various reasons, the School's decision is overruled. Students are then required to complete the outstanding clinical hours within a specific time. Decisions to concede an appeal often do not take into account

the burden placed on the clinical platform when students have a backlog of clinical learning hours to catch up on.

The Provincial DNS[2] has started to refuse to allow students to complete their backlog of hours (termed deficit hours) due to lack of placements and learning opportunities for these "transgressors". According to the DNS, these students have been allocated the time and space to complete the clinical hours, but chose not to do so, and therefore cannot disadvantage other students that now need the clinical placement (Mrs. F. Africa, previous Nursing Director for the Western Cape DNS, Personal Communication, 2015). Despite it becoming more challenging to meet the clinical requirements, it seems that students, like the graduates in Swaziland, do not take clinical practice seriously. Authors of the Swaziland study reports on a theme "No passion for Nursing" and argue that the participants all believed that students do not view nursing as a lifelong vocation and often use it as a gateway to other professions. Therefore, they do not pay sufficient attention to the clinical component and, on employment, do not show enthusiasm for the clinical setting (Dlamini et al., 2014).

Dlamini et al. (2014) suggest that the local nursing staff should collaborate with clinical staff to establish a quality assurance mechanism for clinical education. At the university in this study, this collaboration has already commenced at School and Faculty level in partnership with the Provincial DoH. Unfortunately, to date, the attendance of the clinical component remains problematic.

[2] Directorate of Nursing Services

Dlamini et al. (2014) also propose remunerated community service, amongst others, to support the new graduates during their first few months in the workplace. The authors argue that the intention of these programmes is to socialise graduates in their new roles and environments and could be valuable for professional maturity and patient safety. Unlike Swaziland, South Africa has a mandatory remunerated community service year for all new nursing graduates.

As mentioned before, these CSPs[3] are often left to manage a unit on their own from the outset with limited orientation (Khunou, 2019; Matlhaba et al., 2021; Zaayman, 2016). Another possible reason why the community service year could be failing nursing graduates is improper implementation guidelines (Govender et al., 2017; Mabusela & Ramukumba, 2021). Dlamini et al. (2014) recommend that further research is necessary to evaluate the competence of nurse graduates to validate the perceptions of stakeholders.

This current study is an attempt to address this in the South African context, more specifically in the Western Cape Province. The objectives of this study could lead to a better understanding of the employers' views of graduates' competence and provide suggestions to improve the new nursing programme.

[3] Community service practitioners

2.4 SUMMARY

This chapter presented the conceptual framework that informs this study, as well as the related literature, both internationally and nationally, regarding graduates' readiness for the world of work. It is evident that more research is required, especially on a national level, with regards to nursing graduates' preparedness for the world of work. Therefore, the study aimed to explore this phenomenon and ultimately use the findings to inform the new micro-curriculum of the new Bachelor of Nursing programme. The next chapter presents the methodology that was followed in this study.

CHAPTER 3

METHODOLOGY

3.1 INTRODUCTION

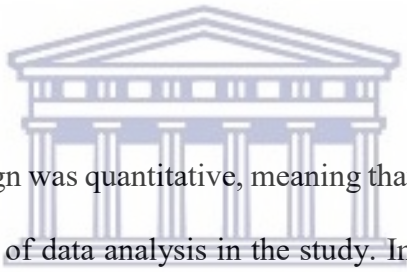
This chapter describes the methodology used for the study. The study consists of three distinct phases. It discusses these phases with reference to the population, sampling, instrument development, data collection and analysis for each of the phases.

3.2 RESEARCH DESIGN

The research design is the overarching method that researchers use to combine the many components of their study in a logical and cohesive manner, guaranteeing that they can effectively address the research question with the new knowledge gained from the study (Labaree, 2016, as cited in McGregor, 2018).

This study used an explanatory sequential mixed methods design. This type of design allows for collection, analysis and "mixing" both quantitative and qualitative data at any stage during the research process within a single study, facilitates the understanding of a research problem more thoroughly and allows for complete analysis (Creswell, 2015; Plano Clark & Ivankova, 2016). Plano Clark and Ivankova (2016) define the “mixing” as “An explicit interrelating of the quantitative and qualitative methods in a mixed methods study” (p34).

Quantitative research allows for measuring social phenomena by means of answering the "what" and "how much" questions, for example, "Did the programme adequately prepare the graduates for the world of work?" Qualitative research focuses on describing the phenomena being studied in a specific context by answering the "how" and "why" questions, for example, "How did the graduates experience the programme?" (Maxell, 2018). The answers to these questions are important for policy and practice, and therefore, a mixed methods study can answer both of these types of questions. It draws on both the quantitative and qualitative strengths and complements the limitations of each type of design mentioned above (Maxell, 2018).



The priority of the design was quantitative, meaning that quantitative methods were the most crucial aspect of data analysis in the study. Implementation in this study consisted of three distinct phases (Creswell, 2015). According to Creswell (2015), the intent of this type of design is to study a problem by beginning with the quantitative phase, where the data is analysed and informs the development of questions for the second phase, which would be qualitatively explored to further explain important findings from the quantitative phase. In this study, a third phase of quantitative data collection was added, which was informed by the first phase, whereby additional information was needed to inform the advisory framework.

The goal of the first phase was to describe the experiences of the graduates and employers regarding the legacy Bachelor of Nursing curriculum. The first phase allowed for purposefully selecting participants for the second phase of the study.

The second phase explored and described why certain factors tested in the first phase might be significant for the programme. Mixing of data occurred during phase 2, as described below, and during the discussion of the findings (Creswell, 2015).

3.3 PHASE 1: QUANTITATIVE

Quantitative research is a type of study that collects and analyses numeric data in the form of numbers or scores to evaluate the relationships between factors (Plano Clark & Ivankova, 2016). Morgan (2014) states that surveys are well suited as a quantitative method since they may assess a large number of variables and study their relationships, which was the purpose of the first phase of the study.
Due to differences in the methodology for graduates and their employers in phase 1 of the study, they are discussed separately.

3.3.1 **Graduates**

The graduate survey of phase 1 addressed objective 1.5.1 of the study.

3.3.1.1 Graduate population

The target population comprised all March 2016 graduates from the legacy Bachelor of Nursing programme of the specific university, placed in the Western Cape for their community service practice year. A total of 118 graduates were in their community service practice year in the Western Cape during 2016. This information was obtained by the researcher at the graduates' pledge ceremony held

early in 2016. The graduates were requested to provide their contact details as well as their place of work at that time. One of the prospective participants tragically passed away before data collection resulting in a population size of 117.

3.3.1.2 Graduate sampling

Before the final year examination in 2015, the researcher arranged for a session with all the fourth-year students. The session was to orientate students to the study and to invite them to participate in the study. Only 95 out of the 117 prospective participants were contactable on the contact details they initially supplied. The 117 prospective participants excluded international students who were excluded from the study (see inclusion and exclusion criteria below). Three of the 95 contactable participants opted not to participate in the study, which resulted in a sample size of n=92.

3.3.1.3 Graduate inclusion and exclusion criteria

To be included, the graduate must have:

- graduated from the university,
- selected for the study,
- and must have worked during the first six months of 2016 as a community service practitioner (CSP)[4] within the Western Cape.

The time lapse of six months ensured that graduates could answer questions regarding utilising skills obtained during the programme in their current working

[4] Community service practitioner

environment. All-inclusive sampling was used, which means that the study included 100% of the traceable population. The researcher focused on CSPs[5] placed within the Western Cape, for which permission to conduct the study was obtained from the Western Cape DoH. In addition, the researcher was familiar with the community service placements of graduates in the Western Cape, which was managed at a provincial rather than a national level.

All international students who graduated from the programme in 2016 were excluded based on the SANC policy, which excludes them from community service; therefore, they did not fit the study's inclusion criteria.

3.3.1.4 Instrument development

Existing data collection instruments used in the larger project's first cohort were reviewed and adapted to meet the study's research objectives. The researcher played a major role together with the supervisor in developing all instruments used in the larger project, anticipating using the instruments in this PhD study. Surveys from previous tracer studies were used to inform the development of the survey for the larger project. The two surveys used to inform the original survey was a graduate tracer survey used by the Wawasan Open University in Malaysia, version 1.0 (Nov 2011) and the Tertiary Education Commission Graduate Tracer Study 2011, used in Mauritius. The latter study covered the biggest tertiary education providers, namely the University of Mauritius and the University of Technology, Mauritius.

[5] Community service practitioners

A detailed information sheet (Appendix 1) was attached to the survey, informing the students of the purpose of the study, the selection criteria, the possibility of being selected for a follow-up interview based on the findings of phase 1, and the ethical considerations of the study. By completing the survey, the graduate was consenting to voluntary participation in the study. The online survey website, SurveyFace, was used to collect data for the survey, which consisted of different sections according to the study's objectives (see Appendix 2).

Each section and question had detailed instructions on what was required to complete the relevant section or question. The first section was the latest contact details of the participants purely to contact the participant if the graduate is identified for phase 2 of data collection, which is discussed below. The other three sections focused on the biographical and educational information and its relevance to the work needs. The educational background section focused specifically on the graduate's experiences regarding the graduate's performance during the programme as well as the evaluation of the specific offering of the programme in terms of facilitation by lecturers and clinical supervisors, teaching and learning in class and the skills laboratories and resources amongst others (see Appendix 2). Evaluating all the different components of the programme was required per year level to allow for more detailed information to be extracted from the data obtained. Different nursing disciplines were offered in different year levels and thus could lead to different experiences per year level for a specific graduate. In the last section, graduates had to identify the skills obtained in the programme and the frequency of utilising these skills in their current world of work. These skills were based on the

graduate attributes of the university. The graduate attributes were worded to fit the context of the nursing profession.

The survey utilised a combination of single-item and closed-ended questions, open-ended questions, filter and follow-up questions, and ranking questions. While attempting to keep the survey simple and easy to understand, the survey included a variety of Likert-type scales used to establish the strength of the participant's views (Horst & Pyburn, 2018).

3.3.1.5 Data collection

SurveyFace was initially used to distribute the survey to all eligible 2016 graduates. Graduates received an email invitation from the researcher and a telephonic invitation from a research assistant to participate in the study. The researcher and the study supervisor trained the research assistant on how to do the telephonic invitation. A written script was provided to assist the researcher when doing the telephonic invitation. A reminder email, as well as telephonic reminders, were sent to increase the response rate. Initially, the response rate from going live on the 10th of October 2016 was inadequate, with only 20% incomplete responses online, necessitating a paper-based survey.

The researcher printed and hand-delivered PDF forms of the survey to the participants at their place of work starting November 2016, after arranging appointments telephonically. The researcher allowed a week to complete the survey

and then arranged for a date and time to collect the completed survey. The researcher ended the data collection for this phase of the study in January 2017.

Out of the 92 surveys distributed to the participants, 78 graduates completed the hard copy survey, giving a response rate of 84.8%. Krishnamurty (2018) states there is no consensus in the available survey methodology literature regarding the minimum acceptable response rate. It often varies according to the mode and type of survey. Lindemann (2019) confirms the lack of consensus on the minimum acceptable response rate and that various parameters influence the response rate. The author states that the short answer is an average survey response rate of 33%.

3.3.1.6 Data analysis: quantitative data analysis

An independent statistician was contracted for the quantitative analysis of the data. Analysing a survey consists of several interrelated processes intended to prepare, arrange, summarise and transform data into information. A statistical package for the social sciences, SPSS, version 24, was used to analyse the data. This package is able to conduct all critical methods of data analysis and data manipulation. Before entering the survey data into SPSS, it was cleaned and coded in numbers using a standard yet structured coding system, e.g. the coding of nominal data such as yes / no answers were coded as 1 / 0.

Descriptive, univariate statistics were used to describe the distribution of scores and frequency distributions for categorical data such as gender. Measures of central tendency, including the mean, median and mode, were used to estimate the

centremost scores in the distribution for a single variable (Nickens, 2018). Measures of variability, e.g. range, variance and standard deviations, were used to estimate the degree to which measurements were dissimilar and varied from the measure of central tendency (Nickens, 2018). Bivariate statistics, including the correlation coefficient and covariance, were used to study relationships between variables, e.g. relationships between the rating of the quality of the assessments of theory and the rating of the quality of the clinical assessments, as depicted in the Likert-scale questions. A test of significance, with the level of significance (α) set at 0.05, was used to make statistical inferences to the study population (Kim, 2018), testing for significance between constructs and across participants (for example: graduates' self-rating of utilisation of skills and the employers' competency rating of the graduates.

3.3.2 **Employers**

The employer survey addressed objectives 1.5.2 of the study.

3.3.2.1 Employer population

The target population for this group of participants was the direct workplace supervisors of all the participating graduates who graduated from the legacy Bachelor of Nursing programme at the selected university in April 2016. Some graduates also had the same direct supervisor because they worked in the same unit, meaning that there could be one supervisor for two or more graduates. The population was, therefore, unknown before data collection started.

3.3.2.2 Employer sampling

The sampling method was purposive because the focus was on direct supervisors of graduates who participated in the study. The sample size was n=71.

3.3.2.3 Employer inclusion and exclusion criteria

The supervisor had to have directly supervised a participating graduate in 2016 during the first six months as a CSP[6]. The study excluded supervisors who did not supervise 2016 graduates from the selected university. Supervisors of non-participating graduates were also excluded.

3.3.2.4 Instrument development

Surveys from previous tracer studies were used to inform the development of the survey for the larger project. The data collection instruments used in the first cohort of the larger project were then reviewed and adapted to meet the research objectives of the current study. The same instruments which informed the graduate instrument informed the development of the instrument for the supervisors.

A detailed information sheet and consent form was attached to the employer survey (Appendices 3 and 4). The survey consisted of different sections according to the objectives of the study (See Appendix 5). The first section focused on the type of healthcare facility (tertiary, regional, community health centre or other) and type of unit where the graduates worked (general, medical, surgical, gynaecology,

[6] Community service practitioner

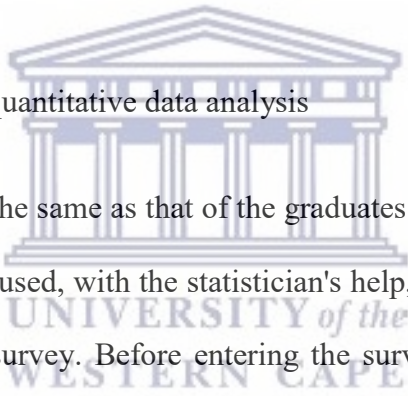
orthopaedics, amongst others). The second section asked about skills requirements for effective performance in the specific unit, while section three asked about skills requirement versus preparation by the programme. In this section, the employers could specify which aspects of the graduates training required strengthening. The questions in the survey were a combination of single-item and multiple-item closed-ended questions, open-ended questions, and ranking questions. While attempting to keep the survey simple and easy to understand, the survey included various scales used to establish the strength of the participant's views. These included Likert scales (Horst & Pyburn, 2018).

3.3.2.5 Data collection

While delivering the graduate surveys, the researcher asked the graduates to hand a hard copy of the employer survey information sheet (Appendix 3), consent form (Appendix 4) and survey (Appendix 5) to their direct supervisor for completion. To control for selection bias on the part of the graduate, the researcher took down the name and telephone number of the direct supervisor to inform the supervisor regarding the survey. This was to prevent the graduate from handing the employer survey to colleagues who were not their direct supervisor, in an attempt to obtain a more “favourable” account of themselves thus threatening the validity of the data collected (Fritz & Lim, 2018). The supervisor would then complete the consent form and survey and place it in a sealed envelope provided by the researcher. After a week, the researcher contacted the graduate to collect both the graduate and supervisor surveys. If the supervisor did not complete the survey, the researcher

arranged for an appointment to collect the survey from the supervisor at a more convenient time.

The researcher distributed a total of 71 employer surveys in hard copy. Fourty employers completed the surveys, giving a response rate of 56, 3%. Only one out of the 40 employers, who completed the survey, supervised two participating graduates. However, the supervisor did complete a survey for each graduate, as the supervisor had to rate the individual's performance. This response rate is in line with Lindemann's statement that the average response rate for an in-person survey is 57% and for a mail survey 50% (Lindemann, 2019).



3.3.2.6 Data analysis: quantitative data analysis

The data analysis was the same as that of the graduates discussed in 3.3.1.6 above. SPSS, version 24, was used, with the statistician's help, to arrange and analyse the data gained from the survey. Before entering the survey data into SPSS, it was cleaned and coded in numbers using a standard yet structured coding system, e.g. the coding of nominal data such as yes / no answers were coded as 1 / 0.

Descriptive, univariate statistics were used to describe the distribution of scores and frequency distributions for categorical data, such as the type of unit. Measures of central tendency, including the mean, median and mode, were used to estimate the centremost scores in the distribution for a single variable, e.g. number of registered nurses excluding the CSPs per shift (Nickens, 2018). Measures of variability, e.g. range, variance and standard deviations, were used to estimate the degree to which measurements were dissimilar and varied from the measure of central tendency (Nickens, 2018). Bivariate statistics, including the correlation coefficient and

covariance, were used to study relationships between variables, e.g. relationships between the importance of different skills and the rating of how the graduates performed in these skills as depicted in the Likert-scale questions. A significance test with $\alpha=0.05$ informed statistical inferences to the study population (Kim, 2018).

3.3.3 **Quantitative phase: rigor**

3.3.3.1 Validity

Maul (2018) states that one of the earliest and still most popular concepts of validity refers to whether the survey measures what it sets out to measure. The researcher secured the assistance of a colleague and statistician, who was not necessarily an expert in this area, to observe for errors to ensure face validity. A knowledgeable person in education and curriculum development reviewed the appropriateness of the items in the survey to ensure content validity (Maul, 2018).

3.3.3.2 Reliability

Tavakol (2018) refers to reliability as the ability of a test to consistently measure an attribute. With the assistance of a statistician, the researcher applied internal consistency reliability using Cronbach's coefficient alpha (≥ 0.70) to groups of items that measure different aspects of the same concept (attribute). Cronbach's alpha checked how well the different items complement each other in measuring different aspects of the same concept (Tavakol, 2018). According to Tavakol (2018), a Cronbach coefficient alpha range of 0.70 to 0.95 is acceptable.

A pre-test of the survey on 55 final year students before data collection for the larger project revealed consistent reliability for the different dimensions measured for each year of study. Cronbach's alpha ranged from 0.78 to 0.96 per dimension per year of study. The dimensions referred to here are the different aspects of the programme, which the graduates had to rate according to their experience.

3.4 PHASE 2: QUALITATIVE

Plano Clark and Ivankova (2016) define qualitative research as a research method that focuses on gathering and evaluating narrative or text data conveyed in words and visuals to learn about people's experiences on a topic. Creswell (2015) states that while quantitative results can provide for the general outcomes of a study, the researcher often does not know why the findings occurred and therefore engage in a qualitative phase to help explain the quantitative results. Thus the qualitative phase of the study is informed by the quantitative phase. In addition, Morgan (2014) states that by using a sequential explanatory mixed method design, the quantitative phase can help identify participants for the qualitative phase if the aim is to trace a theoretically interesting but relatively rare category of participants.

The researcher combined the methodology presentation of phase 2 below. The rationale is that the population, sampling and data collection are similar for both the graduates and the employers. This phase of the study further explored the findings of phase 1 for objective 1.5.3.

3.4.1 **Population and sampling**

The population for graduates and employers were the same as in phase 1 (n=92). The researcher employed purposive sampling for both participant groups. The study aimed to interview at least 10 participants each, from those who had predominantly positive and those who had predominantly negative responses to the survey in phase 1. In other words, 20 graduates and their 20 employers were the planned sample for this phase. However, this depended on the number of respondents from the quantitative phase who met the qualitative phase inclusion criteria and whether the researcher reached data saturation, which is when new cases or observations no longer reveal or divulge new knowledge. According to McGregor (2018), researchers must affirm both the sufficiency of data and the diversity of the data to justify that saturation has occurred. The phase reached data saturation after ten (10) graduates and five (5) employers were interviewed. However, interviews continued up to seventeen (17) graduates and eight (8) employers while preliminary data analysis was performed.

3.4.2 **Inclusion and exclusion criteria**

This phase included participants who participated in phase 1 and:

- whose responses were predominantly either positive or negative
- and was based on the competency rating of the graduates by the employers during the quantitative phase.

3.4.3 **Instrument development**

Under the supervisor's guidance, the researcher developed semi-structured interview guides with probes for both graduates and employers (See Appendices 6 and 7). The focus of the interview guide was based on the significant findings of the quantitative data, which required further qualitative exploration. The questions were open-ended, meaning there was no single "correct" response (Mittenfelner Carl & Ravitch, 2018).

3.4.4 **Data collection**

The researcher and research assistant conducted face-to-face and telephonic, semi-structured interviews with purposively sampled graduates and employers during May and November 2017.

Appointments were scheduled with graduates and employers for the interviews. The participant information document of phase 1 alerted the participants of the possible need to participate in phase 2. The researcher and research assistant conducted interviews at a time and place convenient to the participant. Where face-to-face interviews were not possible, telephonic interviews were arranged. The researcher herself conducted all graduate interviews; however, a trained research assistant conducted the majority of the employer interviews. The researcher and study supervisor trained the research assistant on how to conduct the interviews. A script was drafted to assist the research assistant with managing the interview. A test interview was conducted, thereafter, the researcher listened to the recording and gave the research assistant feedback.

Securing the interviews proved to be a challenge because despite having an appointment for an interview, especially when the participant was on duty, the availability depended on how busy the ward or unit was at the time. Depending on the employer's preference, the research assistant either rescheduled or waited at the facility.

All interviews were audio-recorded with permission from the participants. Both the researcher and research assistant took notes during the interviews.

3.4.5 **Data analysis: qualitative data analysis**

The researcher contracted an independent professional transcriber to transcribe the audio recordings verbatim. The researcher verified the completed transcripts with the recordings to ensure transcription accuracy (Saldaña, 2018).

Qualitative data analysis followed an inductive analysis approach combined with deductive methods, because the quantitative phase of the study influenced the data collected and themes that were generated (Mittenfelner Carl & Ravitch, 2018). An independent coder was contracted, ensuring objectivity and increased credibility of the study. The coder did open coding and generated categories using inductive analysis. At the same time, the themes were deduced from the semi-structured interviews, which were based on the findings of phase 1. The open coding entailed reading the entire data set, marking quotations, taking them out of the text, and aggregating them into a collection of categories or themes, each with a name, and as suggested by McGregor (2018), give rise to a considerable number of codes.

The coding was done manually in Microsoft Word. After developing the initial codes from the transcriptions, the researcher and independent coder met to clarify the context and check for discrepancies in the coding and categories identified. Consensus was reached on the themes and findings.

A detailed presentation of the qualitative findings is set out in Chapter 5. In the discussion in Chapter 7, the themes and quotes are used to explain the findings. The data obtained during this phase adds richness to the study by elaborating on data found in phase 1.

3.4.6 **Qualitative phase: Trustworthiness**

Trustworthiness in qualitative research refers to the overall degree to which other researchers can verify a study's findings (Morgan & Ravitch, 2018). Lincoln and Guba (1985, p.290, as cited in Morgan & Ravitch, 2018) created rigorous criteria to address trustworthiness in qualitative research. These are known as credibility, dependability, transferability, confirmability and authenticity. The researcher addressed the following aspects of trustworthiness for the qualitative phase of the study:

- Using reflexivity, triangulation and member checking, the researcher ensured credibility by ensuring that reconstructions were accurate representations (Behar-Horenstein, 2018). Reflexivity refers to the researcher's discussion of how her biases, values and experiences with the programme at this university in this study might shape interpretation

(Behar-Horenstein, 2018). The researcher is employed at the university and thus known to the graduates who participated in the study. In Chapter 2, the researcher expressed her philosophical stance and epistemological approach regarding curriculum development. She kept notes (memos) during the entire research process to avert the possibility of bias, values and experiences impacting the interpretation of the study findings. In addition, the researcher also used a research assistant to help collect data in phase 2 of the study. The researcher interviewed the graduates herself. She assured the graduates that she was doing the interviews in the capacity of a research student to establish rapport with the participants and address any power dynamics that might arise due to the researcher's relationship with the research setting. To further mitigate interviewer bias, the researcher remained vigilant throughout the interviews to keep non-verbal communication and tone of voice as neutral as possible. In other words, the researcher expressed no non-verbal confirmation, denial, or personal viewpoints during the interviews.

- To ensure dependability triangulation and peer debriefing were used, which refers to the consistency within the findings (Behar-Horenstein, 2018) Triangulation in this study was achieved through using multiple sources, the graduates and their employers, and different methods for data collection in the three phases of the study. A third way of ensuring triangulation was using an independent coder, unaffiliated with the university in the study. The independent coder provided objectivity. Phase 1 informed the

development of the interview guide in phase 2, which further explored the findings of phase 1. Triangulation of the methods gave supporting evidence that validated the findings (Behar-Horenstein, 2018).

While member checking can take many forms, in this study, the researcher used what Behar-Horenstein (2018) refers to as peer debriefing, which can enhance credibility, as mentioned above. The researcher discussed primary findings with the independent coder. In addition, the researcher also consulted with the study supervisor regarding initial findings.

- To establish transferability, the researcher used dense descriptions of the selected samples and referred to the applicability of the findings to similar contexts in the discussions of the findings (Behar-Horenstein, 2018).

- Confirmability was ensured by listening and re-listening to the audiotapes, reading and re-reading of the raw texts before analysing the data. The researcher made use of an independent transcriber to transcribe the audio recordings and then listened and reread all the transcripts to ensure that the transcription was correct. Confirming the content of the audiotapes and the written raw text could also be done by a co-researcher (triangulation) to ensure objectivity (Behar-Horenstein, 2018).

- Authenticity, which strives to ensure that all views of all participants are represented (McGregor, 2018), was ensured by means of member checking and researcher reflexivity as described above.

The study reached saturation when no new information was yielded from the semi-structured interviews with graduates and employers.

3.5 PHASE 3: QUANTITATIVE- GRADUATE CONJOINT ANALYSIS

This phase of the study was an extension of informing and addressing objective 1.5.4, which was to describe the graduate's ranking of the importance of each component of the Bachelor of Nursing programme. In phase 1, the graduates rated their satisfaction with the various constructs of the programme. There was a need to establish their views on the ranking of importance of the various constructs for inclusion in the new micro-curriculum, as described below. The third phase which was quantitative in nature was thus also informed by phase 1 of the study, which further supports the selection of mixed methods as a research design for this study.

Conjoint analysis is a market-based research model that has been used by businesses to predict consumer preferences in product design and purchasing (Mele, 2008). This methodology has implications for nursing research, as Mele (2008) points out, nurse educators design components of a curriculum using this methodology (Biesma et al., 2007; Factor & de Guzman, 2017; Macindo et al., 2019).

The researcher employed conjoint analysis because it could predict participants' preferences, hereby assisting the researcher in identifying which components, according to the graduates would be important in informing the development of the new micro-curriculum. Due to the employers already having rated the importance

of the graduate attributes in phase 1 of the study, they were excluded from the third phase of the study.

3.5.1 **Conjoint analysis design used in this study**

The researcher used the QuestionPro website of an independent research company, to collect and perform the conjoint analysis of the data. QuestionPro uses a choice-based conjoint (CBC) analysis, also referred to as discrete choice modelling (Mele, 2008), which is the most preferred model for conjoint surveys as it models participants' behaviour in real life (Bhaskaran & Lavielle, 2017). In other words, the way in which the participants respond mimics how they make real-life choices when presented with different scenarios. Mele (2008) explains the choice-based conjoint analysis as more reflective of the way individuals make decisions. This approach gives the participant a choice among multiple product profiles rather than asking them to rate or rank a product concept (profile) (Mele, 2008). The author further states that as the number of attributes and levels of options increase, so does the amount of scenarios that are included in the questionnaire, and advises that the researcher must limit the number of possibilities in the questionnaire without sacrificing the ability to infer participant utility (unique value) (Mele, 2008). This speaks to the type of design used for conjoint analysis.

The design of the conjoint question refers to how the participant is presented with the various levels of attributes in the survey (Bhaskaran & Lavielle, 2017). Choice-based conjoint analysis has three designs namely Random, D-optimal and Custom Import design (Bhaskaran & Lavielle, 2017). The Random design uses a purely

random selection of the available attribute levels and is recommended for research with a large number of participants (Bhaskaran & Lavielle, 2017). While certain concepts may repeat themselves by coincidence during a survey, each concept within a task will be distinct. D-Optimal designs are a type of experimental design that is best based on a statistical criterion, which allows parameters to be estimated without bias and with the least amount of variance. The D-optimal design algorithm is recommended for research since it tries to make the most of the available participants (Bhaskaran & Lavielle, 2017). The Custom Import design is where other types of conjoint designs, e.g. fractional orthogonal designs usually developed in software like SPSS, can be imported to the QuestionPro website for use with the discrete choice/ CBC module (Bhaskaran & Lavielle, 2017).

The subject of designs for choice-based conjoint studies is very complicated, but choosing the right design can help compensate for the lack of participants or minimise the number of tasks a participant has to do if there is a complex set of attributes with various levels (Bhaskaran & Lavielle, 2017). The complex set of constructs in this study and the small sample size of this phase of the study lends itself to the D-optimal design. Due to the small population in this study phase, the researcher decided to use the D-optimal design. This type of design is an experimental design optimal to some statistical criterion and allows parameters to be estimated without bias and minimum variance (Bhaskaran & Lavielle, 2017). This type of design requires fewer experimental runs to estimate the parameters and can, therefore, reduce the cost of experimentation (Bhaskaran & Lavielle, 2017). The algorithm of the D-optimal design attempts to best use the available

respondents and is recommended for studies with a limited pool of respondents (Bhaskaran & Lavielle, 2017).

3.5.2 **Definitions of conjoint analysis concepts as used in this study**

Table 3.1: Definitions of conjoint analysis concepts as used in this study

Key Conjoint Terms	**Definition**	**Terms used in this study**
Attributes (Features)	The constituent features of the concept.	Components of a particular construct in the programme eg. The lecturer appears to be an expert in the area.
Levels	The specifications of each attribute.	The levels used were: Not Important, Important and Very Important
Task	The number of times the participant must make a choice.	The example in Appendix 9 shows the first of the 20 tasks as indicated by "Step 1 of 20." In the survey instruction this was referred to as a set of cards
Concept or Profile	The hypothetical product or offering. This is a set of attributes with different levels that are displayed at each task count.	The 8 Constructs of the Programme
Alternatives	Different combinations (options) of levels per attribute presented in a task. May include the "none" option.	Alternatives. In the instruction of the survey, this was phrased as a card.

See Appendix 9 for examples of above concepts.

3.5.3 **Graduate population and sampling**

The graduate population size for this study phase was n=92; however, only 78 graduates completed the survey for phase 1, which gave them the background to the purpose of phase 3. The researcher applied all-inclusive sampling due to the small population. The rationale was to prevent selection bias and to improve the reliability of the findings. At the start of data collection for phase 3, one of the 78 participants withdrew from the study, reducing the sample size to 77 for this phase of the study.

QuestionPro recommends sampling according to one of the inventors of conjoint analysis, Richard Johnson, which is:

$(\frac{nta}{c}) > 500.$

In the equation, the number of respondents is represented by "n", "t" represents the number of tasks (see Table 3.1 for terms and used in this study), "a" represents the number of alternatives per task and "c" represents the largest number of levels for any one attribute (Bhaskaran & Lavielle, 2017). According to the calculation above, the sample size required for this study phase would be n=19, see breakdown of calculation below:

$\left(\frac{n\times20\times4}{3}\right) \geq 500$

$n = \left(\frac{500\times3}{80}\right)$

n=18.75

This calculation is based on many tasks within the survey, which was 20 per construct. Each task had five alternatives per task including a "none" option and

three levels of any one of the attributes. The “none” option is excluded when calculating the sample size on the above rule of thumb (Mele, 2008). See Appendix 8, which represents an example of one set of 20 tasks per construct with the five alternatives ranked according to the three levels of importance. Due to the survey's design, where different combinations were presented to various participants, not all sets could be printed as an example due to the large number of tasks. However, the authors state that 500 seems to be too small a number to calculate as above. They suggest 1000 as a better value (Bhaskaran & Lavielle, 2017). Thus, the formula will be:

$(\frac{nta}{c}) > 1000$

$\left(\frac{n\times 20\times 4}{3}\right) > 1000$

$n = \left(\frac{1000\times 3}{80}\right)$

n=37.5

Orme (2010) states that they have become concerned with researchers using Johnson's rule of thumb to justify small sample sizes. According to Orme (2010), the number 500 was the minimum threshold when the researcher could not afford better; however, 1000 or more would be better per main effect level when possible. Based on this formula, the required sample size for this phase would be n=38, as illustrated above.

However, as mentioned above, the researcher decided on all-inclusive sampling, where n=77. In hindsight this was a good decision as the final responses was n=36.

3.5.4 **Inclusion criterion**

This phase included all graduates who participated and completed phase 1 and phase 2 of the study.

3.5.5 **Instrument development**

Each construct of the legacy nursing programme was set up as a conjoint question with a D-optimal design on the QuestionPro website consisting of different attributes, each with three levels. See Appendix 8 for an example of the survey with an example of one set of attribute preferences out of 20 sets, as presented to participants. When selecting the D-optimal design on the website, the number of versions of the D-optimal design that the researcher wants to generate must be specified. When multiple versions are selected, a D-optimal design is generated with a total number of tasks equal to (the number of tasks) x (the number of versions). All the versions are the larger D-optimal design; however, each participant was only presented with the specified number of tasks, drawn randomly from the larger D-optimal design (Bhaskaran & Lavielle, 2017). This increases the possibility that all possible combinations have an equal chance of being presented to the participants. In this study, the versions for each conjoint question ranged between one and five, those with the least number of attributes allowing only one version and those with more allowing up to five versions.

Each graduate was presented with a set of tasks when completing the online survey. Appendix 8 is an example of a set of tasks per construct. The set of tasks had

predetermined number of alternatives to choose from. Each alternative had a different combination of the three levels for the attribute.

3.5.6 **Data collection**

The researcher set up the survey and performed a pre-test on five (5) participants before data collection commenced. No issues were found with the pre-test, and therefore the five (5) participant responses were included in the total responses. The graduate survey was administered online via the website QuestionPro.

Data collection commenced on the 31st of July 2019, when the researcher sent out email invitations via the website, QuestionPro, to the 77 graduates that completed phase 1 of this study. The programme's 8 concepts or profiles (constructs) rated by the graduates in phase 1 in terms of satisfaction, were used to develop the conjoint analysis survey on the QuestionPro website. Each of these eight (8) constructs had different items known in conjoint analysis as attributes (components of a particular construct). The graduates had to rate the importance of the components of each construct. Each construct with its related components had five (5) alternatives (cards), including the 'none' alternative, which ranked the components in different combination of importance. The graduate had to select the card which best represents their ranking of the components in terms of its importance for its inclusion in the new nursing programme. See an example in Appendix 9. While it is advised to keep the survey as short as possible (Bhaskaran & Lavielle, 2017), the researcher chose to include all the constructs for participants to rate their

preferences in one survey. The researcher feared a loss of respondents should more than one survey be distributed based on each construct.

After one week of the survey being active and with a response rate of only n=11 (14,28%), the researcher sent WhatsApp messages to the participants, in addition to pre-set reminder emails via the QuestionPro website. Three more participants responded, indicating that they would complete the survey if the researcher met them at a place and time convenient for them. The researcher agreed and met with the participants and provided them with a laptop and access to the internet to complete the survey online. Some participants responded and reported that they were no longer using the email address provided during their pledge ceremony and requested that the researcher send the survey to their current email address. All the steps, as mentioned above, increased the response rate after another week to only n=21 (27.27%).

Further attempts to improve the response rate included the researcher phoning the remaining participants, who either started the survey but did not complete it, or those who did not access/start the survey. These phone calls were in addition to a second pre-set reminder email from the website. One participant then indicated that she could not complete the survey as she had left the country during data collection. The researcher confirmed her withdrawal from the study. Three weeks after activating the online survey and all the actions described above, the response rate was n=32 (42,11%). The researcher phoned the participants who started but did not complete the survey again in a further attempt to improve the response rate. The

researcher closed the survey for the data collection on the 31st of August 2019 with a total response rate of n=36 (47,37%).

This response rate is above the average response rate of 33% for a survey as stated by Lindemann (2019), as mentioned previously, as well as above, the 29% response rate for online surveys. However, Lindemann (2019) does advise that the completion rate is a better indicator of the survey performance for web or online surveys. The researcher concurs, as there is no indication of how many participants accessed the online survey. The QuestionPro website gives participant statistics regarding how many times the survey was viewed, how many started, completed and dropped out of the study. For this specific study, the times viewed was 178, meaning that because the survey was sent to only 77 participants, some of them must have viewed the survey more than once. The website, however, does not indicate who the participants were that viewed the survey. Therefore, no calculation could be done on how many participants viewed the survey. However, the number of participants who started the survey was 51. These participants could be traced. The number of participants who completed was 36, which could also be traced to specific participants. The number of participants who completed means a completion rate of 70.59% was obtained for the survey. The completion rate was determined by the number of completed surveys divided by the number of survey's started multiplied by 100 to get to the aforementioned completion rate percentage.

The researcher cautions that this is, however, a conjoint study, therefore, if the sample size for this study, calculated according to Johnson's formula (Bhaskaran &

Lavielle, 2017; Orme, 2010), was n=38, the response rate for this study would then have been 94,74%, given the number of completed responses. However, because all-inclusive sampling was used, the completion response rate is a better indication of the actual performance of the survey.

3.5.7 **Data analysis**

By using conjoint analysis, the researcher could determine both the relative importance of each component and which components of each construct are most preferred by the participants. Thus, a framework of the new micro-curriculum could be informed based on the most preferred components for each of the constructs. Below is a breakdown of the methodology used by the website for the different calculations.

Conjoint analysis is a statistical method to determine how participants value different attributes that make up an individual product or service (Bhaskaran & Lavielle, 2017) which in this study refers to the different components of the constructs of the legacy nursing curriculum. The objective is to determine within a task which combination of components, in the context of this study, most influences the participant's choice of the importance of the components of each construct (Bhaskaran & Lavielle, 2017). An embedded evaluation of the individual preferences is then determined by analysing how participants choose their preferences, called utilities or part-worths. In this study, these evaluations were used for choice-based modelling to inform the framework of the new micro-curriculum (Bhaskaran & Lavielle, 2017).

Each attribute's relative importance is calculated by calculating the Attribute Importance, which is ratio-scaled and relative, study-specific measures. An attribute with an importance of 20% is twice as important as an attribute with an importance of 10% (Bhaskaran & Lavielle, 2017).

There are three steps involved in calculating the Relative Importance of attributes. The importance of an attribute is determined by the difference between its Utility Range and Total Attribute Utility Range (Bhaskaran & Lavielle, 2017).

QuestionPro also calculates the utility or part-worths values, as it is known in conjoint analysis. Utilities are scaled to sum to zero within each attribute, using a specific kind of dummy coding called effects coding (Bhaskaran & Lavielle, 2017). Part-worth values are similar to regression coefficients that provide a quantitative measure of each attribute level.

All of the steps, as mentioned above, are performed by the QuestionPro website. The analysis was presented to the researcher in various formats under the analytics tab of the website. Thus, the analysis was not performed manually for this phase. A detailed representation and discussion of all the conjoint analysis questions, together with their respective attributes and part-worths, are discussed in more detail in Chapter 6.

3.6 FRAMEWORK DEVELOPMENT

The researcher did not follow a conventional framework methodology for developing the new nursing micro-curriculum framework. The four-dimensional

curriculum development framework by Steketee et al. (2013), which was the conceptual framework of this study, and conjoint analysis which extrapolated important constructs was used as a guide to creating the advisory framework of this study. The advisory framework is represented in Chapter 7.

While the new nursing programme at this particular university commenced in 2020, the study remains relevant. It could inform the development of micro-curricula at other NEIs, which are yet to be accredited by the SANC, as pointed out in Chapter 1.

3.7 RESEARCH ETHICS

The Senate Research Committee of the University of the Western Cape approved the methodology and ethics of the study (Reg No 15/8/20) (Appendix 10). The researcher also obtained permission from the Western Cape DoH to conduct the study and gain access to the graduates in their employ and their supervisors as participants. See Appendix 11 for an example of one of the seven permission letters from the Western Cape DOH.

All participants had the right to participate out of their own free will in terms of voluntary participation. They were not forced to participate against their will. The researcher provided the participant with a written and, where necessary, verbal explanation of the study and written informed consent was obtained. The researcher assured participants of confidentiality as only the researcher, the research assistants, and the study supervisor had access to the data. The researcher also informed participants that they had the right to withdraw from the study at any point without

suffering any risk of prejudicial treatment. There was minimal risk associated with this study. There were also no potential benefits to the graduates or their employers. However, it is anticipated that there will be benefits for the nursing programme and nursing practice in future. There was a small incentive offered to graduates for participation in phase 1. The incentive was in the form of a compact disc containing photographs of the graduates' pledge ceremony or sharing the pictures via Google drive.

3.8 SUMMARY

This chapter discussed the methodology used in the study. A detailed description of the methodology of each of the distinct phases was provided. This mixed method design was the best option for this study to ensure that a more in-depth analysis could be performed to enrich the study's findings. The following three chapters will each represent the findings of phases 1, 2 and 3, respectively.

CHAPTER 4

FINDINGS: PHASE 1 - QUANTITATIVE

4.1 INTRODUCTION

This chapter discusses the quantitative findings of phase 1 of the study. It addresses objectives 1.5.1 and 1.5.2. Objective 1.5.1 was to describe the graduates' views on the quality of the undergraduate nursing programme in terms of its content, delivery and relevance to their world of work; and possible gaps in year level and discipline-specific theory and clinical competencies required in their world of work. Objective 1.5.2 was to describe the employers' views regarding the attributes, competencies and competence of the graduates in their employ and areas for improvement in specific disciplines.

Phase 1 is relevant to dimensions two, three and four of the adapted four-dimensional curriculum development framework of Steketee, Lee, Moran, and Rogers (2013), as discussed in Chapter 2. Dimension two refers to the knowledge, competencies, capabilities and practices of the graduates, while dimension three refers to the teaching, learning and assessment approaches and practices. Dimension four deals with institutional delivery. This chapter presents the findings of both the graduate and employer surveys of phase 1.

A statistical package for the social sciences, SPSS, version 24, was used to analyse the data. Data was cleaned and coded in numbers using a standard yet structured coding system. Statistics were used to describe the distribution of scores and

frequency distributions for categorical data such as gender. Measures of variability, e.g. range, variance and standard deviations, were used to estimate the degree to which measurements were dissimilar and varied from the measure of central tendency. The correlation coefficient and covariance were used to investigate correlations between variables using bivariate statistics. A test of significance, with the level of significance (α) set at 0.05, was used to make statistical inferences about study participants' aptitude and employability.

4.2 GRADUATE SURVEY

4.2.1 **Graduate study characteristics**

This survey had 78 graduate respondents, with 87% being female and 13% male. The graduates' ages ranged between 22 and 55 years, with a median age of 24 years. Predominately, most graduates were single (82%), with only 18% reportedly married or living with their partners. For most of these respondents (95%), the nursing degree was their first tertiary qualification. About 11.5% of the graduates had taken a break at some point in their studies, and 42.3% reported having repeated a year (see Figure 4.1). Almost all the graduates (99%) received financial support during their studies.

According to the information proffered by the graduates, 69% had graduated with a pass, 10% with *cum laude* and 21% with *summa cum laude*. Midwifery (37%) was the most enjoyed nursing discipline, followed by Community Health Nursing (CHN) (32%), Psychiatric Nursing (Psych) (28%), and finally, General Nursing

(GNS) (3%). Furthermore, 44% of the graduates reported that they fared best in the theoretical components of Psychiatric Nursing, followed by 31% in Midwifery, while 54% reported that they did not fare well in the theoretical component of General Nursing compared to 24% in CHN. Table 4.1 below shows a detailed breakdown of the graduate study characteristics, while Figures 4.1 and 4.2 highlight the key performance indicators for the graduates.

Table 4.1: Study characteristics of graduate respondents

GRADUATE STUDY CHARACTERISTICS	n	%
Gender		
Male	10	12.8%
Female	68	87.2%
Age group		
20 to 24 years old	38	51.4%
25 to 29 years old	24	32.4%
30 years old +	12	16.2%
What is your marital status?		
Single	64	82.1%
Married / Live-in partner	14	17.9%
What is the South African province of your high school origin?		
Western Cape	51	65.4%
Eastern Cape	21	26.9%
KwaZulu-Natal and Mpumalanga	6	7.7%
Was the nursing degree your first tertiary qualification?		
Yes	74	94.9%
No	4	5.1%
On application, was the nursing degree your first choice of study?		
Yes	60	77.9%
No	17	22.1%
Did you have a break in study?		
Yes	9	11.5%
No	69	88.6%
Did you repeat a year?		
Yes	33	42.3%
No	45	57.7%

GRADUATE STUDY CHARACTERISTICS	n	%
Were you registered in the ECP 5-year programme?		
Yes	16	20.5%
No	62	79.6%
When you completed the nursing degree, did you graduate with		
Pass	54	69.2%
Cum laude	8	10.3%
Summa cum laude?	16	20.5%
Which discipline of the programme did you enjoy the most?		
General nursing	2	2.6%
Community health nursing	25	32.1%
Psychiatric Nursing	22	28.2%
Midwifery	29	37.2%

Out of the 42% that repeated a year, 18.2% repeated the 1st year, while 63.6% and 45.5% repeated the second and third year, respectively. Only 6.1% of graduates reported that they had repeated their 4th year. (See Figure/Table 4.1).

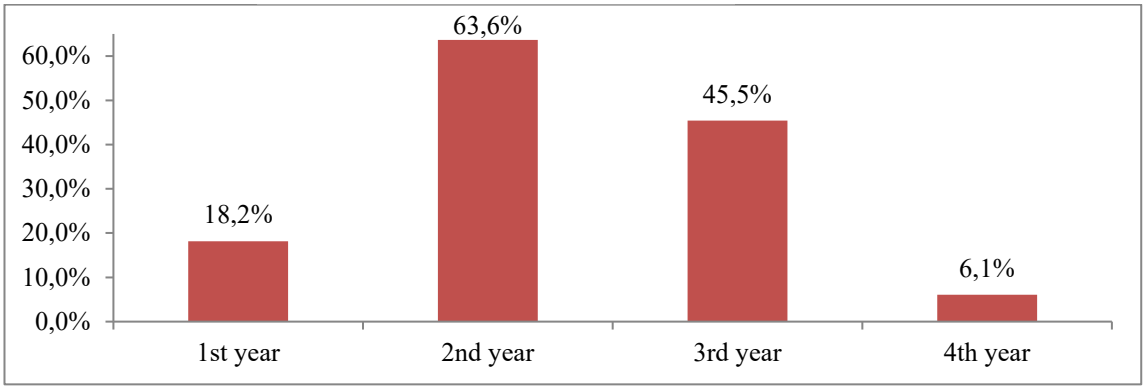


Figure 4.1: Year of study graduates repeated a module(s)

Graduates responded on how well they fared theoretically and clinically in the various disciplines of study. Most of the graduates did not fare well theoretically in

General Nursing (57.5%) and clinically (59.5%). Only 10.5% and 8.1% respectively reported faring best theoretically and clinically in General Nursing. General Nursing is offered in the first and second year of the legacy programme.

Graduates fared well theoretically and clinically in Psychiatric Nursing, currently offered in the fourth year, with 44.7% and 41.9% respectively reporting likewise, compared to 6.8% and 13.5% who respectively reported not faring well.

Graduates also reported doing well in Midwifery, currently offered in the third year, theoretically (31,6%) and clinically (37.8%), while 9.6% and 10.8% did not do well theoretically and clinically (See Figure 4.2).

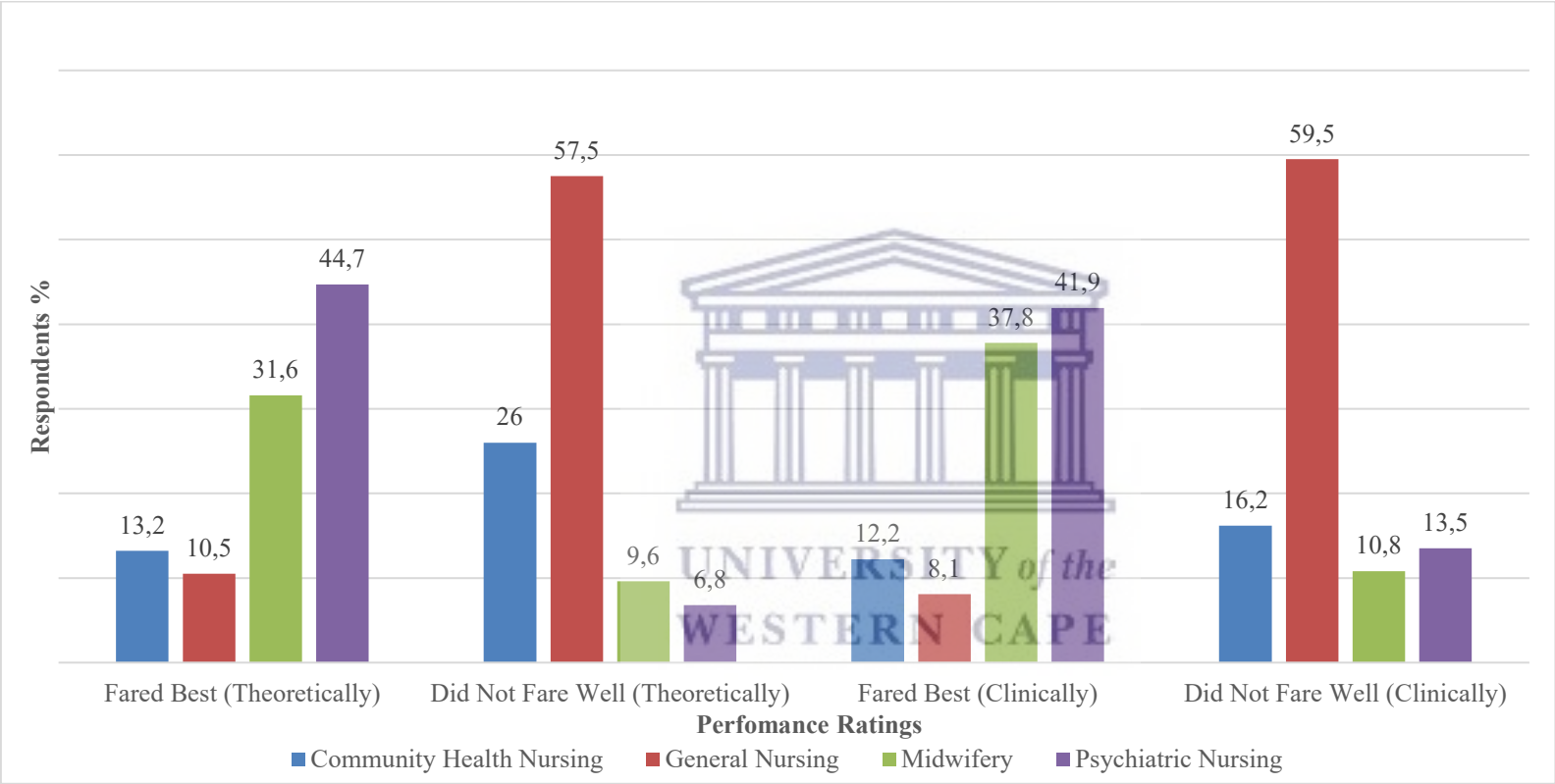


Figure 4.2: Student performance in various disciplines

4.2.2 **Graduates' rating of different aspects of the programme**

4.2.2.1 Lecturer's Facilitation skills

Overall, most graduates reported that the lecturers were able to link theory to practice, with most rating them as either good or excellent from 1st year until 4th year. Lecturers were ranked as excellent for linking theory to practice in mostly the 3rd year Midwifery (60.3%) and 4th-year Psychiatric Nursing (53.8%). In the first and second years, over a third of the graduates ranked lecturers' ability to link theory to practice as either satisfactory (28.2% and 35.9% respectively) or unsatisfactory (6.4% and 2.6% respectively). (See Table 4.2).

Graduates were overall satisfied that the lecturers appeared to be experts in their areas of speciality. The 3rd year Midwifery lecturers were rated by 26.3% of graduates as good and by 64.5% as excellent, while the 3rd year CHN lecturers were rated as good by 37.7% and excellent by 44.2% of the graduates. The 4th-year lecturers (Psychiatric Nursing) were also rated as experts by most of the graduates with 42.3% reporting the lecturers as good and 43.6% reporting them as excellent.

Graduates were satisfied that lecturers gave them sufficient opportunity to ask questions. Only 1.3% in the first year (General Nursing) and 1.3% in the 3rd year CHN graduates were not satisfied with the lecturers' facilitation regarding the provision of ample time for questioning. The majority of graduates (57.7%) reported that the lecturers were excellent in this aspect, sufficient opportunity to question, in their 4th year compared to all the other years.

Lecturers were reported as requiring graduates to problem solve, and most graduates reported that they were satisfied with the lecturers in this aspect. In the 1st year and 2nd year (General Nursing) however, 5.2% and 2.6% respectively indicated that they were not satisfied while 1.3% were also not satisfied in the 3rd year Midwifery, and 1.3% in 4th year (Psychiatric Nursing). Majority of the graduates were satisfied that the assessments were fair from 1st year to 4thyear. Majority of graduates rated the fairness of assessments as good in 1st year (51.3%), 46.2% in 2nd year (both years represent General Nursing), 58.4% in 3rd year CHN, 51.3% in 3rd year Midwifery and 44.9% in 4th-year Psychiatric Nursing.

Table 4.2: Facilitation of Class by Lecturer

Item	Scale	1st year	2nd year	3rd year (CHN)	3rd year (MidW)	4th year
Lecturer able to link theory to practice	Unsatisfactory	6.4	2.6	3.9	2.6	1.3
	Satisfactory	28.2	35.9	7.8	2.6	7.7
	Good	50	48.7	50.6	34.6	37.2
	Excellent	15.4	12.8	37.7	60.3	53.8
Lecturer appeared to be an expert in the areas	Unsatisfactory	1.3	2.6	1.3	1.3	1.3
	Satisfactory	26.9	26.9	16.9	7.9	12.8
	Good	44.9	50	37.7	26.3	42.3
	Excellent	26.9	20.5	44.2	64.5	43.6
Sufficient opportunity to question	Unsatisfactory	1.3	0	1.3	0	0
	Satisfactory	15.4	19.2	14.3	9	6.4
	Good	48.7	50	41.6	38.5	35.9
	Excellent	34.6	30.8	42.9	52.6	57.7
	Unsatisfactory	5.2	2.6	0	1.3	1.3
	Satisfactory	20.8	11.7	11.8	10.4	14.3

Item	Scale	1st year	2nd year	3rd year (CHN)	3rd year (MidW)	4th year
Lecturer required graduates to problem solve	Good	35.1	50.6	39.5	37.7	32.5
	Excellent	39	35.1	48.7	50.6	51.9
Were the assessments fair?	Unsatisfactory	2.6	2.6	3.9	3.8	0
	Satisfactory	19.2	26.9	10.4	9	14.1
	Good	51.3	46.2	58.4	51.3	44.9
	Excellent	26.9	24.4	27.3	35.9	41

**CHN – Community Health Nursing MidW – Midwifery

Figure 4.3 below shows graduate ratings on average scores of lecturers' ability to facilitate class increased from 1st year through to 4th year. However, there was a significant, consistent anomaly decrease in the average scores from higher scores in 1st year to lower scores in the 2nd year level lecturers' ability. The decrease relates to the slight drop in scores in the 2nd year (General Nursing) in the lecturer's ability with reference to linking theory to practice, the appearance of expertise in the area, provision of sufficient time for questions and the fairness of assessments. This however increased again in 3rd year (CHN), 3rd year (Midwifery) and in 4th year (Psychiatric Nursing). The highest average score of 2.54 was reported for the 3rd year Midwifery lecturers for their ability to link theory to practice and the lowest average score recorded being 2.19 for the fairness of assessments.

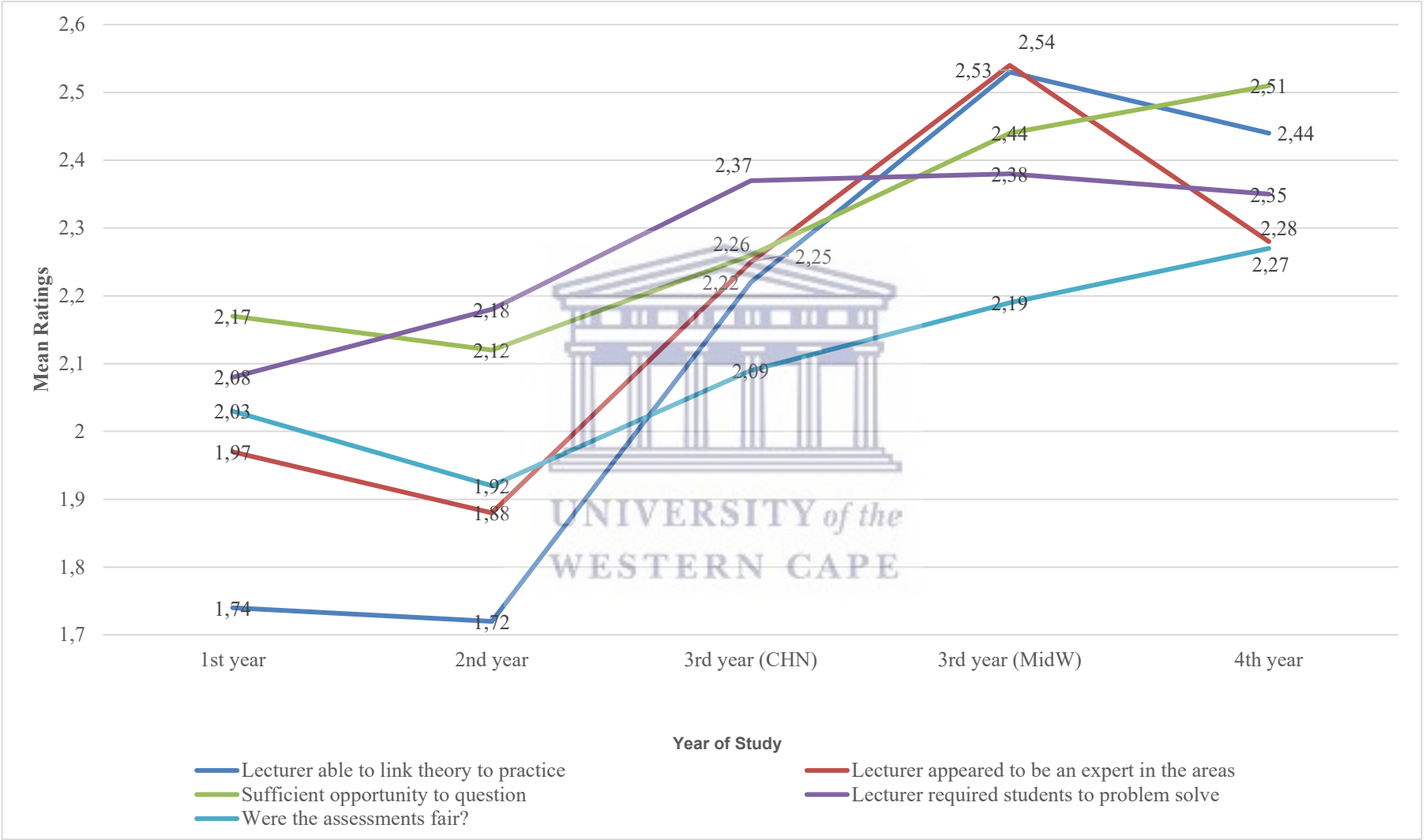


Figure 4.3: Average Score of Student Ratings on Facilitation of Class Session by Lecturer

4.2.2.2 Structure and content of modules

Overall, graduates were satisfied that the modules they were registered for required that they conduct research. Many graduates (37.7%) rated that the modules were excellent in allowing graduates to conduct research with the proportion of graduates increasing subsequently from the 1st year (11.7%) up to 37.7% by the time they were in their 4th year. Conducting of research was not limited to searching for information on topics for class but the actual conducting of research. Graduates also reported that the modules they were registered for allowed them to develop critical thinking skills. The proportion of graduates who rated the modules as excellent in allowing them to develop critical thinking skills also increased from 1st year (24.4%) to 55.8% by the time they were in the 4th year. Only 3.8% of graduates were not satisfied that modules developed critical thinking skills in their 1st year, and 1.3% reported likewise about the 4th year.

The modules were also rated highly by graduates for developing problem-solving skills with graduates (26.9%) reporting that 1st year modules were excellent while 55.1% of the graduates reported likewise for the 4th-year modules. A total of 5.1% of the graduates felt that the 1st year modules were not satisfactory in developing problem-solving skills, while 1.3% reported that the 3rd year Midwifery modules were also not satisfactory.

Modules were also highly rated as satisfactorily addressing current issues faced by nurses in practice. Almost a quarter of the graduates reported 1st year modules as excellent in addressing the issues faced by nurses in practice while 30.8% reported

likewise for the 2nd year modules with the 4th year modules rated as excellent by just over half of the graduates (53.8%). However, 6.4% of the graduates reported that the 1st year modules were not satisfactory in addressing the needs and issues faced by nurses in practice.

Overall graduates reported that the modules were satisfactory, good or excellent for adequately preparing them for their roles as registered nurses. More than one-tenth, (11.5%) of the graduates rated the modules in the 1st year, as excellent in preparing them for professional roles as nurses, while the 2nd year modules were rated excellent by 19.5% of the graduates and the 4th-year modules were reported as excellent by 40.3% of the graduates (See Table 4.3).

Table 4.3: Structure and Content of Programme/Module

Item	Scale	1st year	2nd year	3rd year (CHN)	3rd year (MidW)	4th year
Modules required graduates to conduct research	Unsatisfactory	9.1	7.9	5.2	5.2	0
	Satisfactory	28.6	28.9	15.6	14.3	14.3
	Good	50.6	48.7	51.9	54.5	48.1
	Excellent	11.7	14.5	27.3	26	37.7
Modules assisted graduates to develop critical thinking skills	Unsatisfactory	3.8	0	0	0	1.3
	Satisfactory	28.2	19.2	14.1	7.7	10.4
	Good	43.6	44.9	43.6	35.9	32.5
	Excellent	24.4	35.9	42.3	56.4	55.8
Module assisted graduates to develop problem solving skills	Unsatisfactory	5.1	0	0	1.3	0
	Satisfactory	20.5	17.9	9.1	7.7	12.8
	Good	47.4	47.4	50.6	37.2	32.1
	Excellent	26.9	34.6	40.3	53.8	55.1

Item	Scale	1st year	2nd year	3rd year (CHN)	3rd year (MidW)	4th year
Modules addressed current issues faced by nurses in practice	Unsatisfactory	6.4	2.6	0	1.3	0
	Satisfactory	32.1	33.3	16.7	10.3	12.8
	Good	37.2	33.3	43.6	39.7	33.3
	Excellent	24.4	30.8	39.7	48.7	53.8
Adequate in preparation for role as a registered nurse	Unsatisfactory	12.8	2.6	0	0	0
	Satisfactory	32.1	32.5	23.4	13	15.6
	Good	43.6	45.5	46.8	45.5	44.2
	Excellent	11.5	19.5	29.9	41.6	40.3

**CHN – Community Health Nursing MidW – Midwifery

To complement the results presented above, Figure 4.4, below, shows the graduate ratings on the structure and content of the programme or module. The average scores increased from 1st year through to 4th year. The average scores increased from the lowest scores recorded for 1st year modules from 1.54 for the adequacy of the 1st year programme to prepare them for their roles as registered nurses to 2.25 in 4th year. The highest average score reported for the 3rd year Midwifery was 2.49 for modules assisted students to develop critical thinking skills and the lowest average score was 2.01 for the module's adequacy to require students to conduct research.

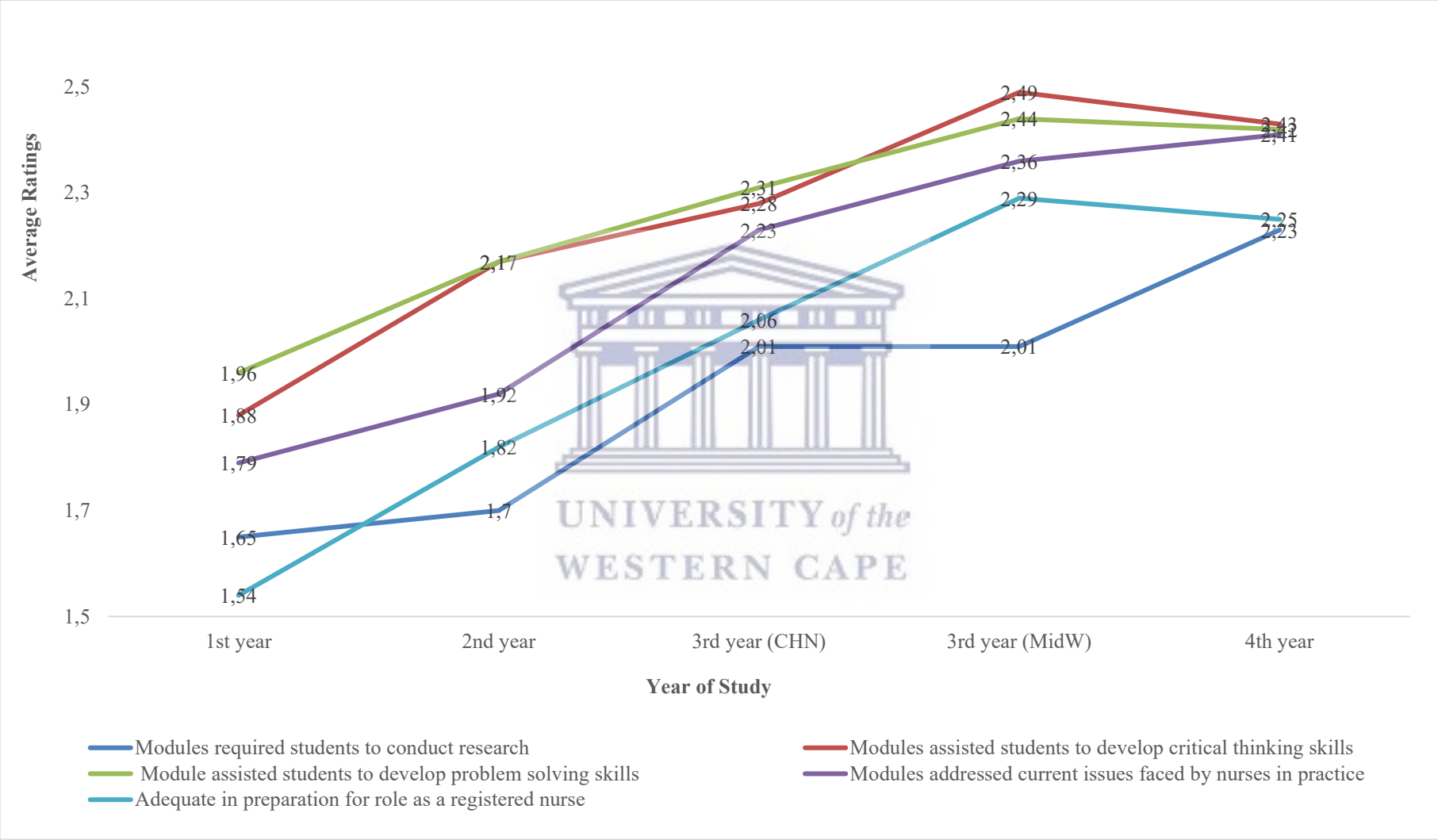


Figure 4.4: Average scores of graduates' satisfaction rating on the structure and content of the programme

4.2.2.3 Contact with lecturers

Lectures were reportedly available for consultation as most of the graduates rated their availability as satisfactory, good or excellent over the four years of study. Graduates rated the lecturers' availability in 1st year as excellent (44.9%) while for the 2nd year lecturers, 46.2% of the graduates reported their availability as excellent. Most of the graduates (59%) rated the 4th-year lecturers' availability as excellent. Some graduates (3.8%) were not satisfied with the availability of the 3rd year, CHN lecturers' availability while for all the other levels, only 2.6% were not satisfied, respectively.

Lecturers' ability to address the academic concerns raised by graduates was also rated, and most graduates rated the lecturers highly overall. Almost a third of the graduates (32.1%) rated the 1st year and 2nd year lecturers as excellent, and 35.9% rated the 4th-year lecturers as excellent. Graduates were mostly not satisfied by the lecturers' ability to address their academic concerns in 2nd year (7.7%) and 3rd year Midwifery (6.4%) while 5.1% were not satisfied with the 1st year and 3rd year (CHN) lecturers' ability, respectively. The lecturers' ability to refer graduates appropriately was also rated with most of the graduates citing that the lecturers were good at referring their graduates. Most of the graduates rated their lecturers in 1st year (21.8%), 2nd year (29.5%), 3rd year CHN (31.2%), 3rd year Midwifery (30.8%) and 4th year (35.9%) as excellent in providing referrals (See Table 4.4).

Table 4.4: Graduates' contact with the lecturer

Item	Scale	1st year	2nd year	3rd year (CHN)	3rd year (MidW)	4th year
Lecturers available for consultation	Unsatisfactory	2.6	2.6	3.8	2.6	2.6
	Satisfactory	14.1	19.2	5.1	7.7	3.8
	Good	38.5	32.1	48.7	39.7	34.6
	Excellent	44.9	46.2	42.3	50	59
Lecturers' ability to address student academic concerns	Unsatisfactory	5.1	7.7	5.1	6.4	2.6
	Satisfactory	17.9	17.9	14.1	10.3	11.5
	Good	44.9	42.3	53.8	53.8	50
	Excellent	32.1	32.1	26.9	29.5	35.9
Lecturers able to refer appropriately	Unsatisfactory	3.8	5.1	3.9	5.1	3.8
	Satisfactory	29.5	28.2	22.1	17.9	19.2
	Good	44.9	37.2	42.9	46.2	41
	Excellent	21.8	29.5	31.2	30.8	35.9

**CHN – Community Health Nursing MidW – Midwifery

The graduates' average score ratings for contact time with lecturers were also plotted, as shown in Figure 4.5 below. For the lecturers' availability for consultation graduates' average scores increased from 1st year to 4th year with a slight decrease recorded in the 2nd year, which was observed similarly for lecturers' ability to address student concerns. The highest average scores were recorded for the 4th-year lecturers on all three aspects measured (See Figure 4.5) with the highest average score, 2.5 being recorded for lecturers' availability for consultation.

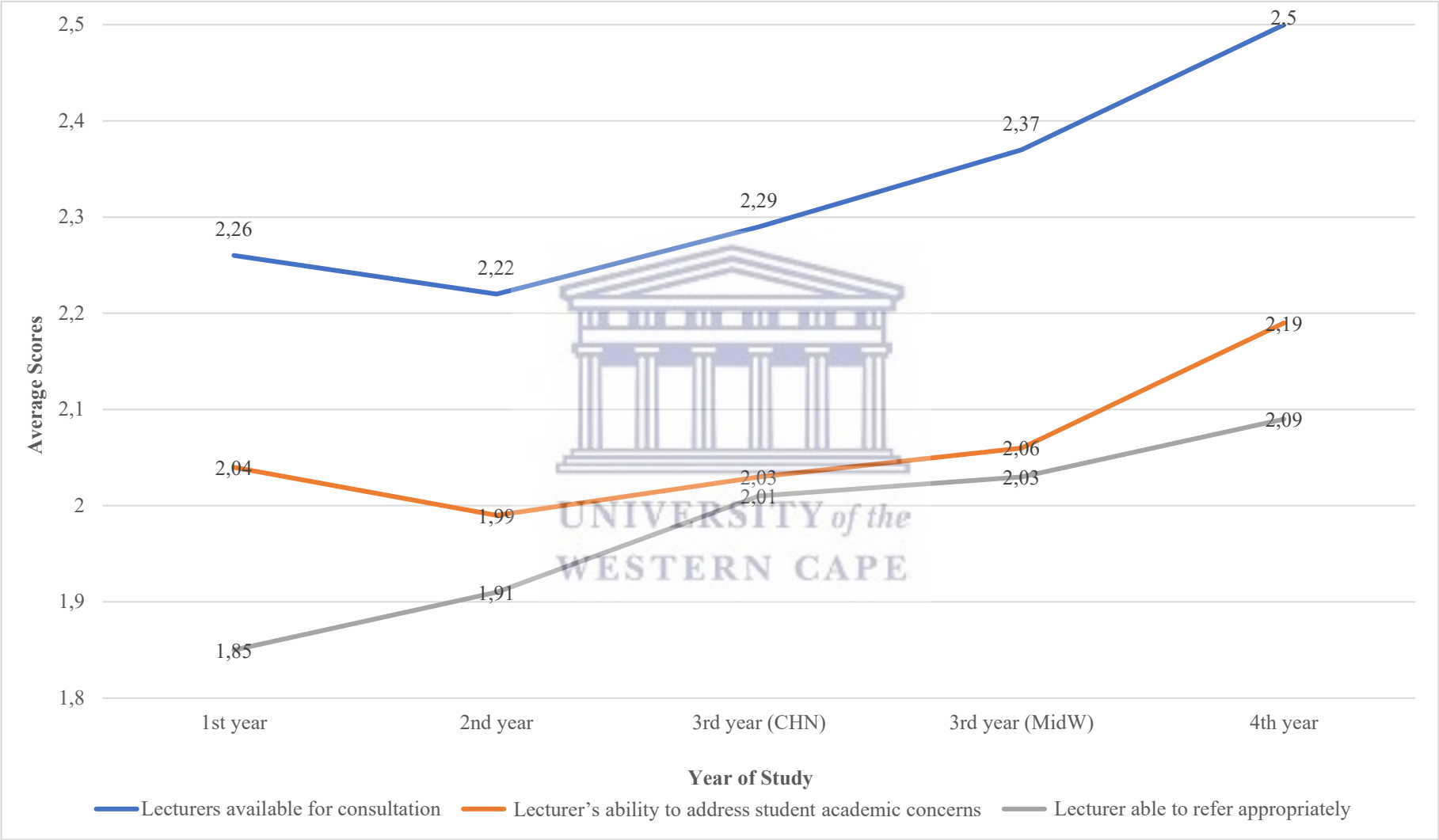
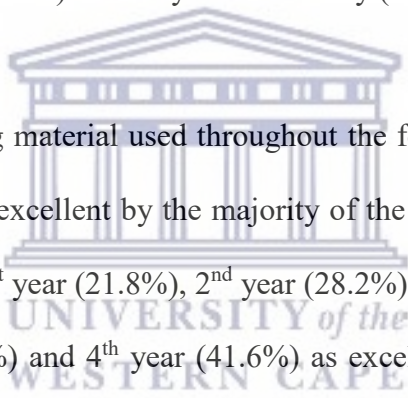


Figure 4.5: Average scores of graduates' satisfaction rating on contact time with lecturers

4.2.2.4 Availability of resources

Graduates rated the availability of teaching material such as visual aids and handouts, and the majority rated the availability as satisfactory, good and excellent over the four year levels. Almost a third of the graduates rated the availability of teaching materials as excellent in 1st year (32.1%), 2nd year (33.3%) and 3rd year CHN (32.1%), while 40.3% reported likewise in 3rd year Midwifery. However, the proportion of graduates who reported that the availability was unsatisfactory was constant and similar in 1st year (7.7%), 2nd year (6.4%), and 4th year (6%) and lower in both 3rd year CHN (3.8%) and 3rd year Midwifery (3.9%).



The quality of teaching material used throughout the four years was also rated as satisfactory, good and excellent by the majority of the graduates. Graduates rated the materials used in 1st year (21.8%), 2nd year (28.2%), 3rd year CHN (32.5%), 3rd year Midwifery (44.2%) and 4th year (41.6%) as excellent. Graduates were most dissatisfied with materials used in 1st year (6.4%), and 2nd year and 3rd year CHN (2.6%) respectively.

Lecturers were rated on their effective use of available teaching materials, and overall graduates were more than satisfied that the lecturers used their teaching materials effectively. Graduates rated the lecturers in 1st year (16.9%) as excellent in using teaching materials and the proportion who rated the lecturers as excellent also increased over the years up to 4th year (38.5%). The level at which lectures were pitched correctly was rated, and graduates rated the pitching level as excellent in 1st year (30.8%), 2nd year (29.5%), 3rd year CHN (32.1%), 3rd year Midwifery

(42.3%) and 4th year (43.6%). Lecturers were also rated highly for their ability to adequately prepare for contact sessions, with graduates rating lecturers excellent in the 1st year (26%), 2nd year (28.2%), and 4th year (43.6%) (See Table 4.5).

Table 4.5: Learning and teaching resources

Item	Scale	1st year	2nd year	3rd year (CHN)	3rd year (MidW)	4th year
Availability of teaching material, e.g. visual aids, handouts etc.	Unsatisfactory	7.7	6.4	3.8	3.9	6
	Satisfactory	26.9	24.4	20.5	10.4	38
	Good	33.3	35.9	43.6	45.5	56
	Excellent	32.1	33.3	32.1	40.3	0
Quality of teaching material	Unsatisfactory	6.4	2.6	2.6	0	0
	Satisfactory	23.1	19.2	15.6	14.3	16.9
	Good	48.7	50	49.4	41.6	41.6
	Excellent	21.8	28.2	32.5	44.2	41.6
Effective use of teaching material	Unsatisfactory	7.8	1.3	2.6	1.3	1.3
	Satisfactory	24.7	25.6	19.2	15.4	19.2
	Good	50.6	48.7	50	44.9	41
	Excellent	16.9	24.4	28.2	38.5	38.5
Lectures pitched at the correct level	Unsatisfactory	2.6	3.8	1.3	0	0
	Satisfactory	23.1	17.9	21.8	16.7	15.4
	Good	43.6	48.7	44.9	41	41
	Excellent	30.8	29.5	32.1	42.3	43.6
Lectures adequately prepared for contact sessions	Unsatisfactory	2.6	2.6	0	0	0
	Satisfactory	24.7	17.9	19.2	11.5	10.3
	Good	46.8	51.3	43.6	48.7	46.2
	Excellent	26	28.2	37.2	39.7	43.6

**CHN – Community Health Nursing MidW – Midwifery

The average scores of graduate ratings on availability and use of teaching resources are shown in Figure 4.6. The lowest scores reported was for the 4th year's availability of teaching materials such as visual aids and handouts, which dropped drastically from the 3rd year Midwifery scores of 2.21. On average, however, the average scores increased from 1st year through to 4th year. The lowest scores recorded for 1st year modules was 1.77 for the effective use of teaching materials, which increased to 2.21 in 3rd year Midwifery and dropped slightly to 2.17 in 4th year. The highest average scores were reported for the 3rd year Midwifery's quality of material at 2.3, which also dropped slightly in 4th year to 2.25.

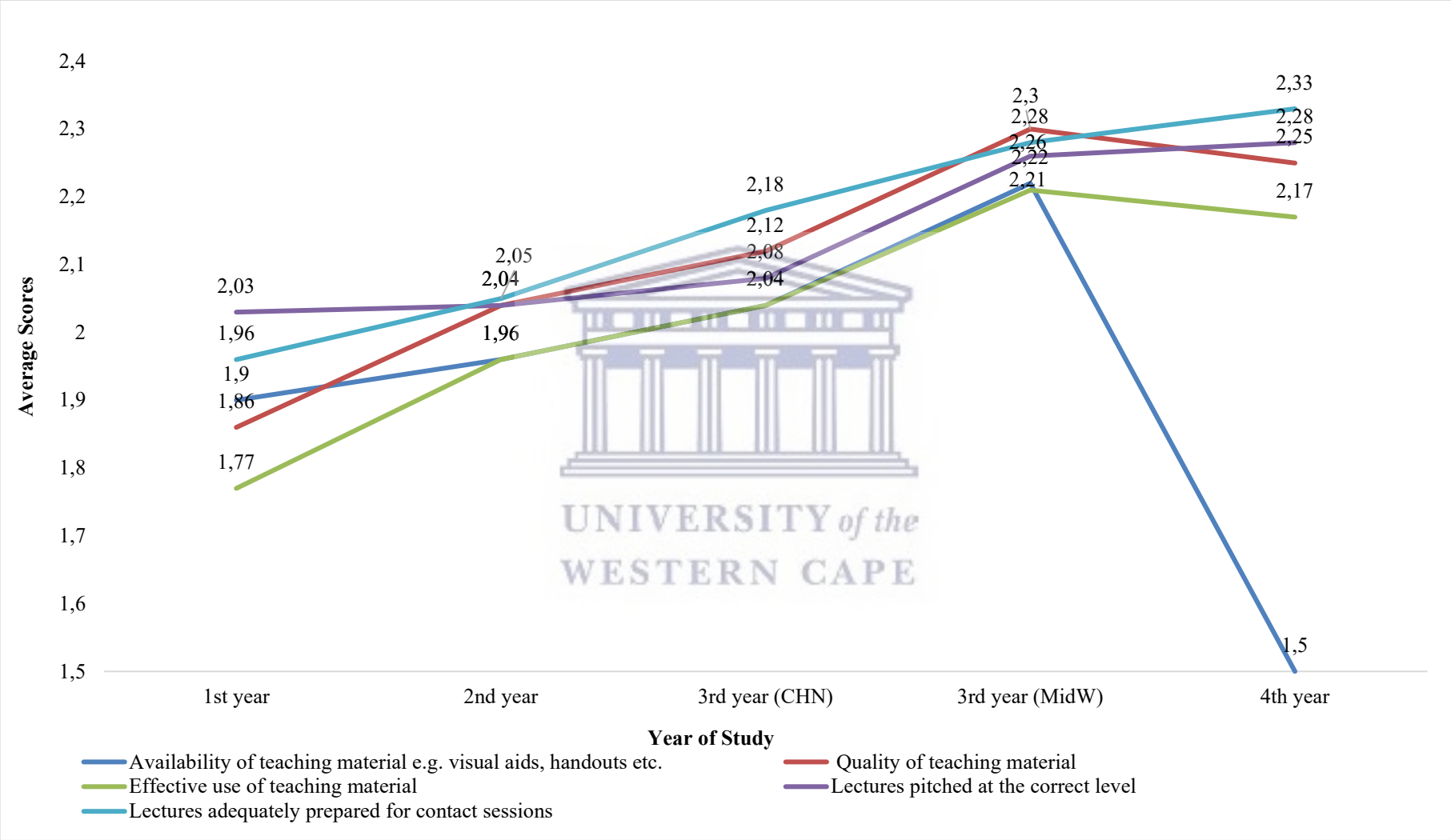


Figure 4.6: Average scores of graduates' satisfaction rating on the availability of resources

4.2.2.5 Clinical teaching and learning

The graduates were also asked to report on the lecturers' or clinical supervisors' ability to link practice to theory. Most of the graduates rated the lecturers or clinical supervisors as excellent for 1st year (41%) and 2nd year (41%) while the 3rd year Midwifery lecturers were rated by most of the graduates as excellent (57.7%). Graduates further rated the lecturers or clinical supervisors on the provision of sufficient opportunities for asking questions, and 3rd year Midwifery lecturers or clinical supervisors were rated by the highest proportion of graduates as excellent (46.2%) while the 3rd year, CHN lecturers or clinical supervisors were rated as excellent by 41%, and the lowest proportion rating for excellent was reported for 4th-year lecturers or clinical supervisors (38.5%).

Lecturers or clinical supervisors were rated highly for allowing graduates to solve problems. Graduates (24.4%) rated the 1st year lecturers or clinical supervisors as excellent, while 30.8% of the graduates rated 2nd year lecturers or clinical supervisors as excellent. The 3rd year Midwifery lecturers or clinical supervisors were rated as excellent in allowing graduates to solve problems by 41% of the graduates while the 3rd year CHN was rated excellent by 31.2%. Lecturers or clinical supervisors were also rated favorably on their ability to effectively develop students' clinical confidence. Lecturers or clinical supervisors in 1st year and 2nd year were rated as excellent by 25.6% of the graduates while the 3rd year CHN and 3rd year Midwifery lecturers or clinical supervisors were rated excellent by 38.5% and 47.4% of the graduates, respectively and lastly, 43.6% of the graduates rated the 4th- year lecturers or clinical supervisors as excellent.

Lecturers or clinical supervisors were rated overall as satisfactory, good and excellent in their pitching of practical demonstrations at the correct level, with majority of the graduates (47.4%) rating the 3rd year Midwifery lecturers or clinical supervisors as excellent, while 1st year, 2nd year and the 3rd year CHN lecturers or clinical supervisors were rated excellent by 37.2%, 38.5% and 42.3% of graduates respectively. Graduates rated the lecturers or clinical supervisors highly on their ability to adequately prepare graduates for their roles as registered nurses. More graduates rated the lecturers or clinical supervisors in the last two years of study as excellent with, 3rd year CHN (30.8%), 3rd year Midwifery (47.4%) and 4th year (46.2%) compared to the first two years rating of 1st year lecturers or clinical supervisors (19.2%) and 2nd year lecturers or clinical supervisors (24.4%) (See Table 4.6).

Table 4.6: Clinical Teaching and Learning

Item	Scale	1st year	2nd year	3rd year (CHN)	3rd year (MidW)	4th year
Lecturer /Clinical Supervisor able to link practice to theory	Unsatisfactory	1.3	1.3	0	2.6	1.3
	Satisfactory	21.8	19.2	14.1	5.1	7.7
	Good	35.9	38.5	41	34.6	35.9
	Excellent	41	41	44.9	57.7	55.1
Sufficient opportunity to question	Unsatisfactory	0	0	1.3	0	0
	Satisfactory	18.2	17.9	11.5	10.3	12.8
	Good	41.6	42.3	46.2	43.6	48.7
	Excellent	40.3	39.7	41	46.2	38.5
Lecturer /Clinical Supervisor required graduates to problem solve	Unsatisfactory	2.6	0	1.3	0	0
	Satisfactory	15.4	14.1	7.8	11.5	7.7
	Good	57.7	55.1	59.7	47.4	55.1

Item	Scale	1st year	2nd year	3rd year (CHN)	3rd year (MidW)	4th year
	Excellent	24.4	30.8	31.2	41	37.2
Effectively developed clinical confidence	Unsatisfactory	5.1	6.4	1.3	1.3	0
	Satisfactory	21.8	24.4	7.7	7.7	6.4
	Good	47.4	43.6	52.6	43.6	50
	Excellent	25.6	25.6	38.5	47.4	43.6
Demonstrations pitched at the correct level	Unsatisfactory	2.6	2.6	0	0	0
	Satisfactory	20.5	19.2	17.9	14.1	19.2
	Good	39.7	39.7	39.7	38.5	39.7
	Excellent	37.2	38.5	42.3	47.4	41
Adequate in preparation for role as a registered nurse	Unsatisfactory	10.3	3.8	0	0	0
	Satisfactory	21.8	21.8	15.4	10.3	11.5
	Good	48.7	50	53.8	42.3	42.3
	Excellent	19.2	24.4	30.8	47.4	46.2

**CHN – Community Health Nursing MidW – Midwifery

As shown in Figure 4.7 below, the average scores of graduate ratings on clinical teaching and learning increased from 1st year through to 3rd year, with a slight decrease in 4th year. The highest average scores were reported for the 3rd year Midwifery clinical supervisors'/lecturers' ability to link theory to practice at 2.47 which increased from 2.12 in 1st year, 2.17 in 2nd year and 2.31 in 3rd year CHN. It is imperative to note, the ability of 2nd year clinical supervisors to effectively develop clinical confidence dropped significantly to 1.88 from 1.94 reported for 1st year clinical supervisors. In the legacy programme, it is the same cohort of clinical supervisors for both 1st and 2nd year, meaning that they would have been supervised by the same group of clinical supervisors. The only new staff on the clinical teaching team would be the lecturers of the particular year level.

The lowest average score recorded was 1.77 for the adequacy of the 1st year clinical supervisors to prepare the graduates for their role as registered nurses, which increased to 1.95 in 2nd year, 2.15 in 3rd year CHN, and 2.37 in 3rd year Midwifery.

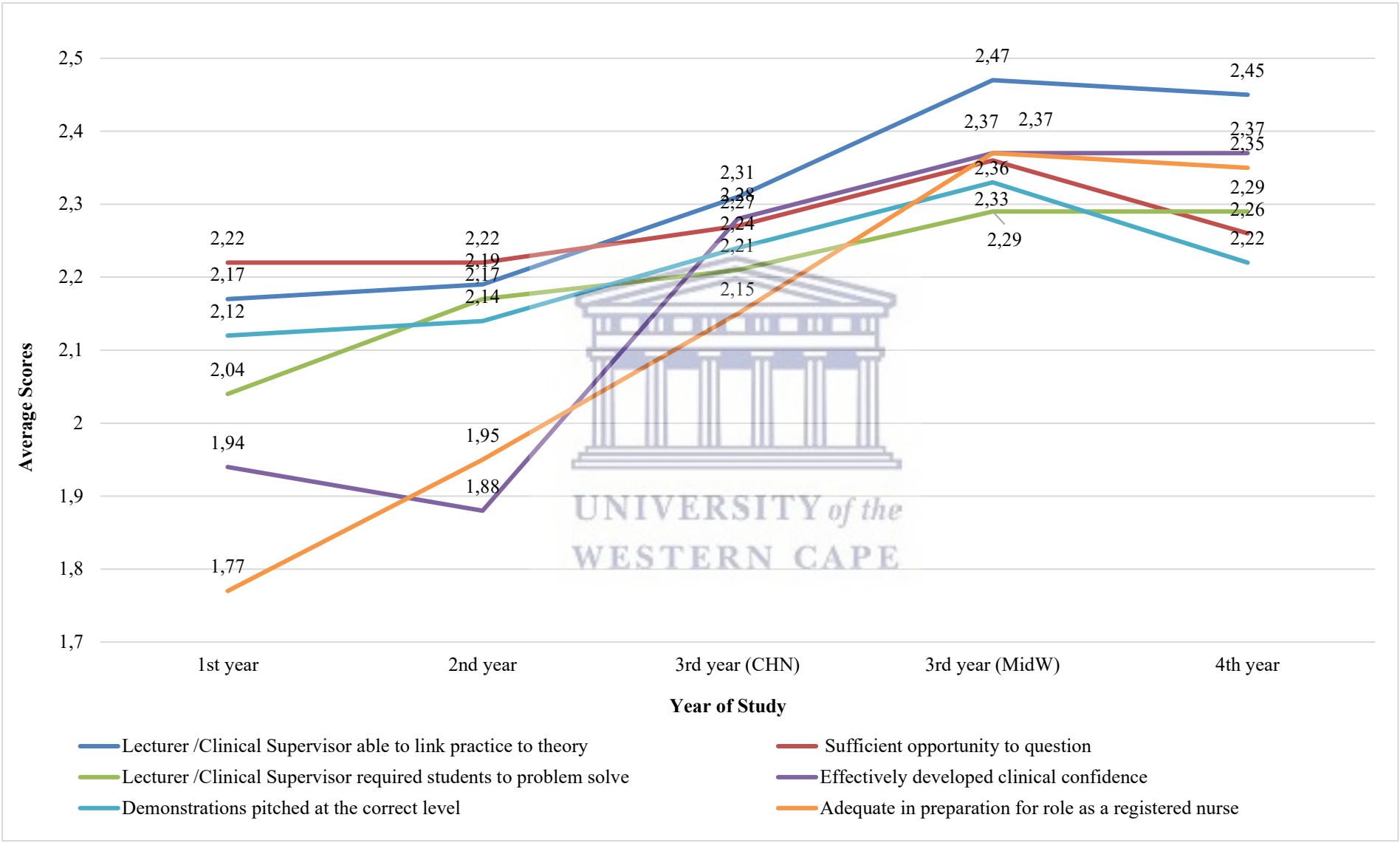


Figure 4.7: Average scores of graduates' satisfaction rating on clinical teaching and learning

4.2.2.6 Clinical placements

The appropriateness of clinical placements to link theory and practice in the various institutions was also rated according to the year of study. Graduates were highly satisfied with their 1st and 2nd year placements in terms of the linking of theory to practice, with 33.3% students rating it as excellent for the respective year levels. The 3rd year CHN (42.3%), 3rd year Midwifery (57.7%) and the 4th-year (60.3%) placements were rated as excellent by the majority of the graduates for appropriately linking theory to practice. Graduates were mostly not satisfied with the time spent per placement mainly in the 1st year (29.5%) and 2nd year (28.2%), and the proportion of graduates who were not satisfied with the time allocated for placement decreased in 3rd year CHN (10.3%), 3rd year Midwifery (9%) and 4th year (7.7%). On the other hand, the proportion of graduates who rated the allocation of sufficient time for placement as excellent increased from 1st year placements (23.1%), 2nd year (25.6%), 3rd year CHN (25.6%), 3rd year Midwifery (37.2%) to 4th- year placements (39.7%).

Graduates were also not satisfied with the orientation provided at the placements with 23.1% of the graduates reporting that the orientation provided in 1st year was unsatisfactory, while (16.7 %) 2nd year, (11.5%) 3rd year CHN, (9%) 3rd year Midwifery and (7.7%) 4th-year graduates were not satisfied with the orientation provided. A significant proportion of graduates were also satisfied with the orientation provided at their placement, with 21.8%, 19.2%, 23.1%, 28.2% and 41% of the graduates rating the orientation provided to the placement as excellent from 1st year, 2nd year, 3rd year CHN, 3rd year-Midwifery and 4th year respectively.

A significant proportion of graduates were also not satisfied with the sufficiency of learning opportunities provided at their placements. Graduates rated the 1st year placements (17.9%) as unsatisfactory, while 14.1% rated 2nd year placements, 7.7% rated 3rd year CHN, 5.1% rated 3rd year Midwifery and 3.8% rated 4th-year placements as unsatisfactory in providing sufficient learning opportunities. Over one-third of the graduates reported that the 3rd year Midwifery (34.6%) and 4th year (34.6%) were excellent, in providing sufficient learning opportunities at placements.

The graduates also rated the placements highly in terms of it preparing them for their role as registered nurses with 14.3%, 7.8%, 5.2%, 3.9% and 2.6% of graduates reporting that the placements were unsatisfactory in 1st year, 2nd year, 3rd year CHN, 3rd year Midwifery and 4th year, respectively. On the other hand, the proportion of graduates who reported that the placements were excellent in preparing them for their role as registered nurses was 19.5%, 15.6%, 29.9%, 39% and 42.9% of the graduates reporting that the 1st year, 2nd year, 3rd year CHN, 3rd year Midwifery and 4th year placements were excellent, respectively (See Table 4.7).

Table 4.7: Clinical Placements (Hospitals, Clinics, etc.)

Item	Scale	1st year	2nd year	3rd year (CHN)	3rd year (MidW)	4th year
Appropriate placements for linking of theory and practice	Unsatisfactory	7.7	2.6	0	2.6	1.3
	Satisfactory	17.9	23.1	14.1	6.4	9
	Good	41	41	43.6	33.3	29.5
	Excellent	33.3	33.3	42.3	57.7	60.3
	Unsatisfactory	29.5	28.2	10.3	9	7.7

Item	Scale	1st year	2nd year	3rd year (CHN)	3rd year (MidW)	4th year
Sufficient time spent per placement	Satisfactory	23.1	23.1	26.9	24.4	17.9
	Good	24.4	23.1	37.2	29.5	34.6
	Excellent	23.1	25.6	25.6	37.2	39.7
Sufficient orientation to placement	Unsatisfactory	23.1	16.7	11.5	9	7.7
	Satisfactory	21.8	25.6	20.5	16.7	15.4
	Good	33.3	38.5	44.9	46.2	35.9
	Excellent	21.8	19.2	23.1	28.2	41
Sufficient learning opportunities at placement	Unsatisfactory	17.9	14.1	7.7	5.1	3.8
	Satisfactory	30.8	33.3	19.2	14.1	16.7
	Good	32.1	34.6	48.7	46.2	44.9
	Excellent	19.2	17.9	24.4	34.6	34.6
Adequate in preparation for role as a registered nurse	Unsatisfactory	14.3	7.8	5.2	3.9	2.6
	Satisfactory	27.3	32.5	19.5	14.3	15.6
	Good	39	44.2	45.5	42.9	39
	Excellent	19.5	15.6	29.9	39	42.9

**CHN – Community Health Nursing MidW – Midwifery

In Figure 4.8 below, the average scores of graduates' ratings on clinical placements increased from 1st year through to 4th year. The lowest average scores were reported for the aspect of sufficiency of the time allocated for 1st year placements with a score of 1.41 which increased to 1.46, in 2nd year and continued to increase up to 2.06 in 4th year. The highest scores were reported for the appropriateness of placements in linking theory and practice, which increased from 2 to 2.46 in 3rd year Midwifery and 2.49 in 4th year. The placements reportedly prepared the graduates adequately for their role as registered nurses and the graduate ratings

increased from1.64 in 1st year, 1.68 in 2nd year, 2 in 3rd year CHN, 2.17 in 3rd year Midwifery and 2.2 in 4th year.

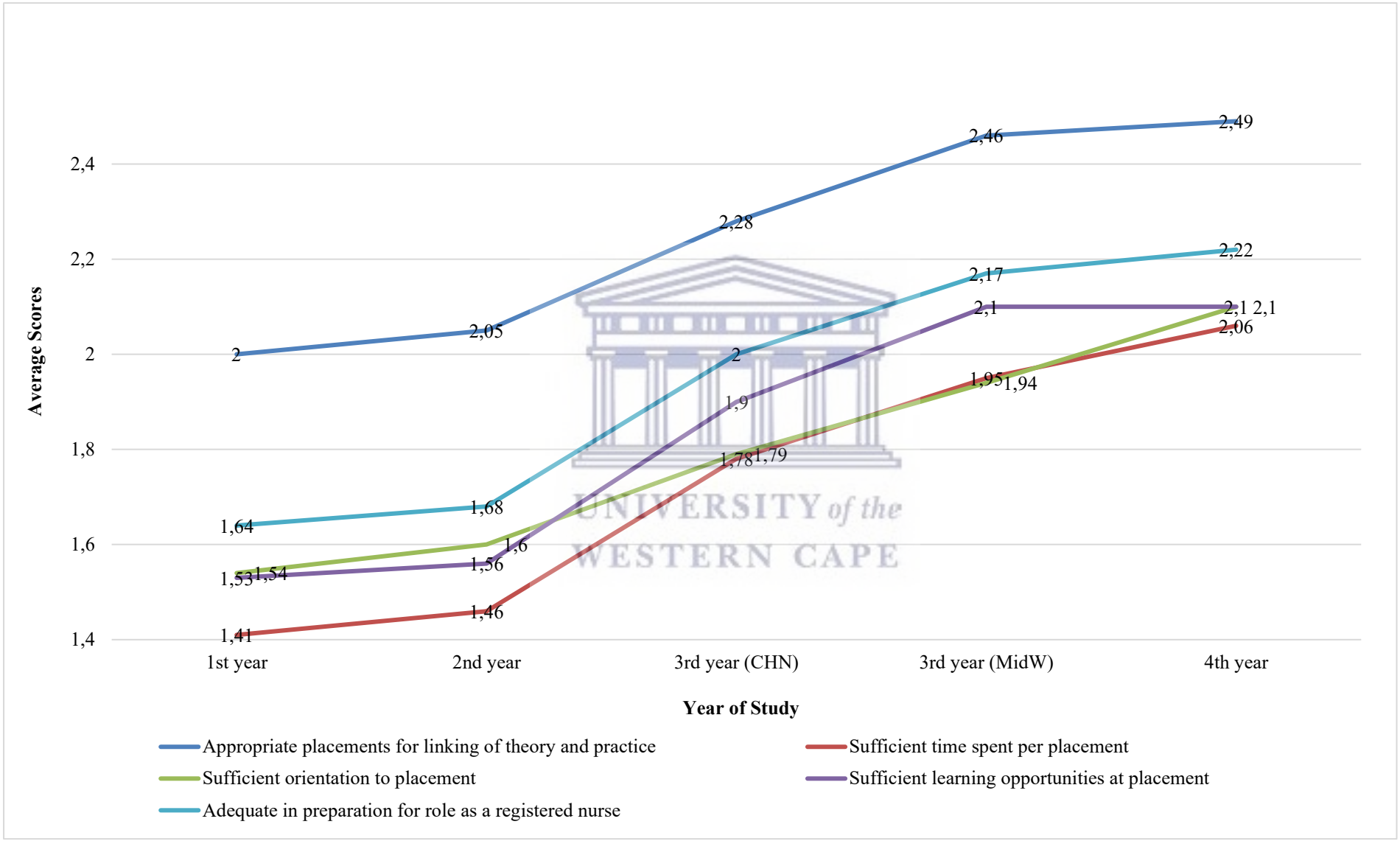


Figure 4.8: Average scores of graduates' satisfaction rating on clinical placements

4.2.2.7 Clinical supervision

The graduates were also asked to evaluate the quality of clinical supervision provided. Most of the graduates reported that clinical supervisors in 1st year (32.5%), 2nd year (29.9%), 3rd year CHN (39%), 3rd year Midwifery (40.8%) and 4th year (40.3%) were excellent in honouring their supervision appointments. Supervisors were also reported as excellent in providing clinical support by over one-third of the graduates with the 1st, 2nd and 3rd year CHN supervisors rated highly by 38.5% of the graduates, respectively. The 3rd year Midwifery clinical supervisors were rated as excellent by 51.3% of the graduates, while 46.2% of the graduates also rated the 4th- year clinical supervisors similarly.

Graduates also rated the clinical supervisors on the quality of providing sufficient one-on-one supervision with a significant proportion of graduates rating the 1st year (25.6%), 2nd year (23.1%), 3rd year CHN (26.9%), 3rd year Midwifery (37.2%) and 4th year (32.1%) clinical supervisors as excellent. The effectiveness of the feedback provided by the clinical supervisors was rated highly by most of the graduates from 1st year to 4th year with the 1st year clinical supervisors rated excellent in providing excellent feedback by 39.7% of the graduates, compared to 33.3% for 2nd year clinical supervisors, 41% for 3rd -ear CHN, 46.2% for Midwifery and 47.4% for 4th-year clinical supervisors.

Clinical supervisors from 1st year to 4th year were also highly rated in their ability to promote clinical judgment in real-life settings. The proportion of graduates who rated the clinical supervisors as excellent increased over the years, from 1st year

(24.4%) to 2nd year (26.9%), 3rd year CHN (37.2%), 3rd year Midwifery (47.4%) and 44.9% in 4th year. The clinical supervisor's ability to promote critical thinking in real-life settings was rated as excellent by over one quarter of the graduates for both the 1st year, and 2nd year clinical supervisors (25.6%) while 34.6%, 42.3% and 44.9% of the graduates respectively rated the 3rd year CHN, 3rd year Midwifery and 4th-year clinical supervisors similarly.

Clinical supervisors' ability to promote problem-solving skills in real-life setting was also rated as good by the majority of graduates in 1st year (51.3%), 2nd year (52.6%), 3rd year CHN (51.3%), 3rd year Midwifery (48.7%) and 4th year (48.1%). The clinical supervisors in the 1st year (20.5%), 2nd year (21.8%), 3rd year CHN (29.5%), 3rd year Midwifery (34.6%) were rated as excellent while 4th year clinical supervisors were rated excellent by 35.1% of the graduates.

A significant proportion of graduates reported not being satisfied with the support they received from registered nurses at their placements, particularly in 1st year (28.2%), 2nd year (18.4%) and 3rd year (5.2%). On the other hand, the proportion of graduates who reported that the support they were receiving from registered nurses at their placements was excellent increased from 1st year (14.1%) to 43.4% in 4th year (See Table 4.8).

Table 4.8: Graduates' rating of Clinical Supervision

Item	Scale	1st year	2nd year	3rd year (CHN)	3rd year (MidW)	4th year
Clinical Supervisors honored the appointments	Unsatisfactory	3.9	2.6	3.9	0	1.3
	Satisfactory	16.9	19.5	14.3	6.6	14.3
	Good	46.8	48.1	42.9	52.6	44.2
	Excellent	32.5	29.9	39	40.8	40.3
Clinical Supervisors provided clinical support	Unsatisfactory	3.8	3.8	1.3	1.3	0
	Satisfactory	15.4	16.7	11.5	9	11.5
	Good	42.3	41	48.7	38.5	42.3
	Excellent	38.5	38.5	38.5	51.3	46.2
Sufficient one-on-one supervision	Unsatisfactory	7.7	7.7	6.4	3.8	3.8
	Satisfactory	28.2	25.6	25.6	17.9	15.4
	Good	38.5	43.6	41	41	48.7
	Excellent	25.6	23.1	26.9	37.2	32.1
Clinical Supervisors provided effective feedback	Unsatisfactory	1.3	1.3	1.3	1.3	0
	Satisfactory	17.9	17.9	12.8	10.3	11.5
	Good	41	47.4	44.9	42.3	41
	Excellent	39.7	33.3	41	46.2	47.4
Promote clinical judgment in real life setting	Unsatisfactory	5.1	2.6	1.3	0	0
	Satisfactory	19.2	17.9	14.1	10.3	12.8
	Good	51.3	52.6	47.4	42.3	42.3
	Excellent	24.4	26.9	37.2	47.4	44.9
Promote critical thinking in real life setting	Unsatisfactory	3.8	3.8	0	0	0
	Satisfactory	24.4	21.8	21.8	12.8	12.8
	Good	46.2	48.7	43.6	44.9	42.3
	Excellent	25.6	25.6	34.6	42.3	44.9
Promote problem-solving skills in real life setting	Unsatisfactory	5.1	6.4	0	0	0
	Satisfactory	23.1	19.2	19.2	16.7	16.9
	Good	51.3	52.6	51.3	48.7	48.1

Item	Scale	1st year	2nd year	3rd year (CHN)	3rd year (MidW)	4th year
	Excellent	20.5	21.8	29.5	34.6	35.1
Support from registered nurses at the placements	Unsatisfactory	28.2	18.4	5.2	1.3	1.3
	Satisfactory	39.7	48.7	24.7	19.5	15.8
	Good	17.9	23.7	41.6	44.2	39.5
	Excellent	14.1	9.2	28.6	35.1	43.4
Demonstrations pitched at the correct level	Unsatisfactory	5.1	1.3	0	0	0
	Satisfactory	19.2	23.4	13	11.7	11.7
	Good	52.6	59.7	57.1	53.2	50.6
	Excellent	23.1	15.6	29.9	35.1	37.7

**CHN – Community Health Nursing MidW – Midwifery

As shown in Figure 4.9 below, the average scores of graduate ratings on clinical supervision indicators increased from 1st year through to 4th year for half of the indicators, while the other half slightly decreased for the fourth year. Those that slightly decreased for the 4th year was for clinical supervisors honouring appointments, sufficient one-on-one supervision, promoting clinical judgement in real life setting and clinical supervisors providing clinical support. The highest average scores were reported for the 3rd year Midwifery clinical supervision indicators with the lowest average score recorded being 2.13 for the provision of sufficient one-to-one supervision. The highest average score recorded was 2.4 for the provision of clinical support by clinical supervisors.

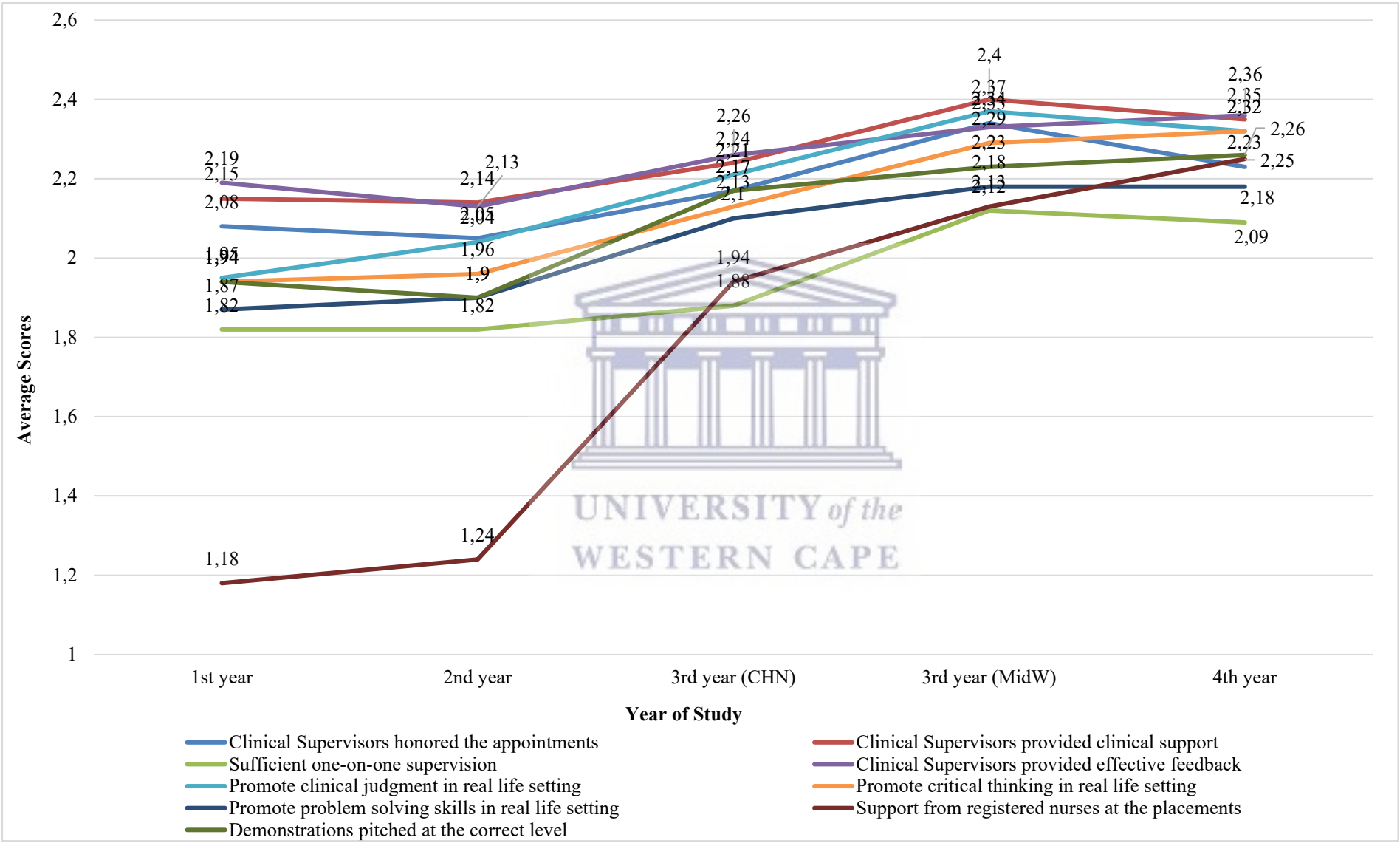


Figure 4.9: Average scores of graduates' satisfaction rating on clinical supervision

4.2.2.8 Resources for skills laboratories

The resources in the skills laboratories were also rated by the graduates with the quality of the equipment reportedly rated as good by majority of the graduates from 1st year (48.7%), 2nd year (46.2%), 3rd year CHN (47.4%), 3rd year Midwifery (42.3%) to 4th year (48.1%). The proportion of graduates who rated the quality of the equipment as excellent was not consistent and fluctuated throughout the programme from 29.5% in 1st year to 38.5% in 3rd year Midwifery and decreasing again to 24.7% in 4th year.

The skills laboratory resources available to prepare students for clinical placement was reported as not satisfactory in 1st year by 6.4% of the graduates compared to 2.6% in 2nd year, and 1.3% in both 3rd year disciplines and 4th year. The proportion of graduates who cited that the skills laboratory resources were excellent for adequately preparing them for clinical placement was low with only 17.9% of graduates in 1st year, 19.2% in 2nd year, 20.5% in 3rd year CHN, 30.8% in 3rd year Midwifery and 29.5% in 4th year reporting likewise. The opportunities for the graduates to use the equipment provided was reported as satisfactorily adequate, good and excellent by the majority of the graduates across all the four-year levels of training. Graduates cited that the opportunities to use equipment were excellent, with 24.4% of the graduates citing likewise for 1st year skills laboratories, 19.2% for 2nd year, 20.5% for 3rd year CHN, 25.6% for 3rd year Midwifery and lastly, 23.4% citing the same for the 4th-year skills laboratories (See Table 4.9).

Table 4.9: Resources for Skills Laboratories

Item	Scale	1st year	2nd year	3rd year (CHN)	3rd year (MidW)	4th year
Quality of equipment in skills laboratories	Unsatisfactory	1.3	3.8	0	1.3	5.2
	Satisfactory	20.5	19.2	24.4	17.9	22.1
	Good	48.7	46.2	47.4	42.3	48.1
	Excellent	29.5	30.8	28.2	38.5	24.7
Adequate for training in preparation for placement	Unsatisfactory	6.4	2.6	1.3	1.3	1.3
	Satisfactory	23.1	29.5	19.2	20.5	17.9
	Good	52.6	48.7	59	47.4	51.3
	Excellent	17.9	19.2	20.5	30.8	29.5
Sufficient opportunity to use equipment	Unsatisfactory	1.3	2.6	1.3	5.1	3.9
	Satisfactory	28.2	30.8	21.8	19.2	22.1
	Good	46.2	47.4	56.4	50	50.6
	Excellent	24.4	19.2	20.5	25.6	23.4

**CHN – Community Health Nursing MidW – Midwifery

On average, the graduate ratings on the adequacy of resources available for skill laboratories to prepare students for placements increased from 1st year through to 4th year. The lowest average scores reported for this aspect increased from 1.82 in 1st year up to 2.09 in 4th year. The quality of equipment for skills laboratories was highly rated by graduates from 1st year at 2.06 and dropped slightly to 2.04 in 2nd year and 3rd year CHN but increased for 3rd year Midwifery to 2.18 before dropping again in 4th year to 1.92. The opportunity to use equipment in skills laboratories was rated lowest by the graduates particularly in 2nd year when it dropped from1.94 in 1st year to 1.83 in 2nd year, before increasing slightly in 3rd year CHN and 3rd year Midwifery to 1.96 dropping slightly to 1.92 in 4th year (See Figure 4.10).

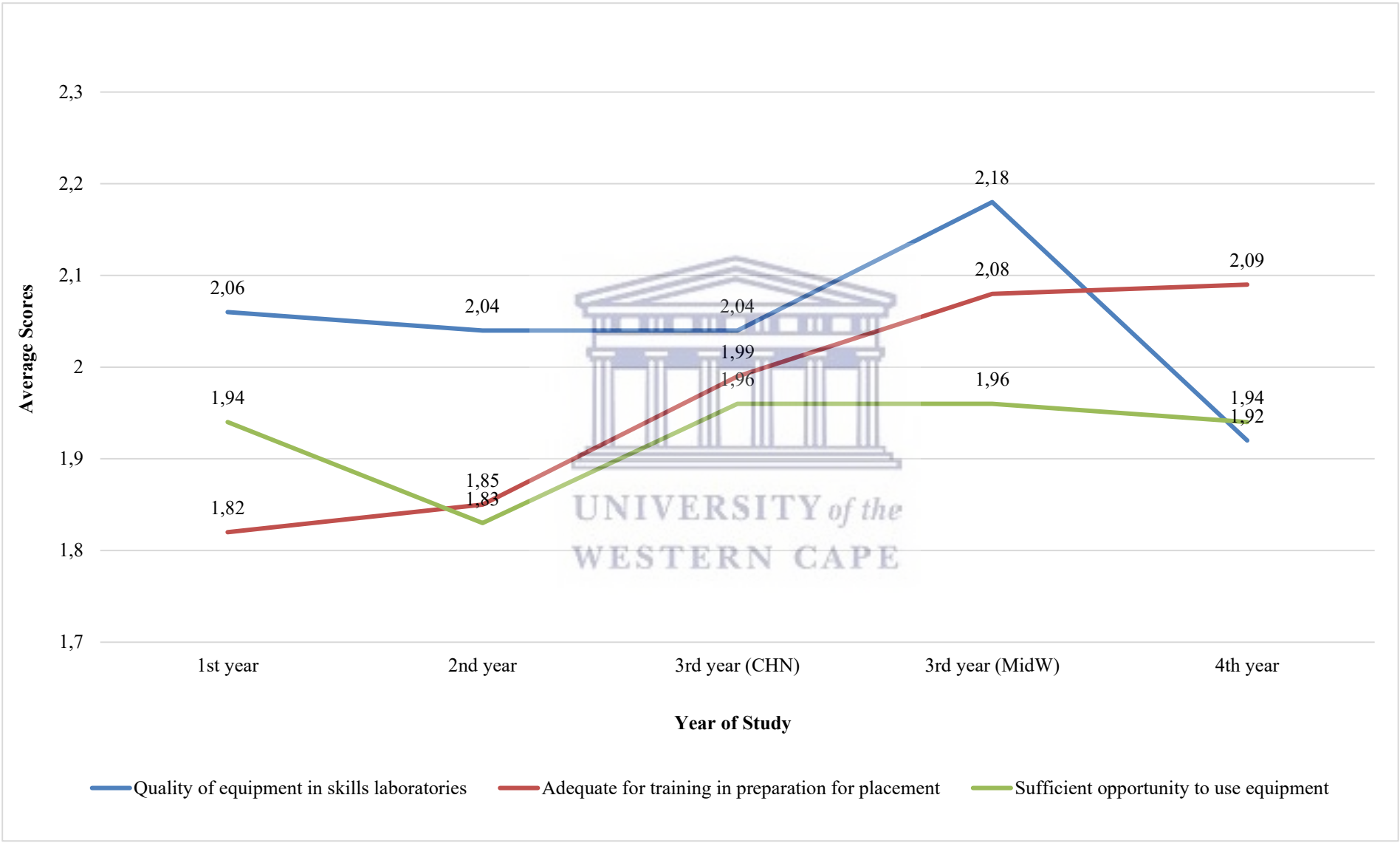


Figure 4.10: Average scores of graduates' satisfaction rating on resources for skills laboratories

4.2.3 **Graduates' rating of competencies acquired during undergraduate nursing programme**

Graduates were asked to rate their competence in the skills they acquired in the undergraduate nursing programme. Most of the graduates reported their level of competence as satisfactory, good or excellent on most of the aspects assessed. The majority of the graduates cited that they were good (59%) in their nursing-specific theoretical knowledge, while 20.5% were either satisfied with their competence or cited that they were excellent. With regard to the nursing-specific clinical knowledge, most of the graduates cited that they were also good (44.9%) while 24.4% reported that they were excellent, and 29.5% reported that they were satisfactory. However, the remaining 1.3% of the graduates reported that their level of competence in nursing-specific clinical knowledge was unsatisfactory. The majority of the graduates reported that they were good in problem-solving skills (62.8%), initiative and adaptability (53.5%), planning and organising skills (55.1%) as well as the ability to pay attention to detail (47.4%). Some graduates cited that their problem-solving skills (1.3%), initiative and adaptability skills (2.6%), ability to paying attention to detail skills (1.3%) were not satisfactory. Most of the graduates reported that they were excellent in their ability to work under pressure (48.7%), the ability for teamwork (43.6%) and the ability to work well independently (46.2%). The communication skills were rated mostly as good, particularly verbal communication (50%), written communication (48.7%) and the general computer literacy skills (31.2%). However, 2.6% and 3.9% of the graduates respectively cited that their computer literacy skills were either unsatisfactory or non-existent (See Table 4.10).

Table 4.10: Graduate rating of competencies acquired during the undergraduate nursing programme

Attributes /Competencies	Non-existent	Pre-existent	Unsatisfactory	Satisfactory	Good	Excellent
Nursing-specific theoretical knowledge	0	0	0	20.5	59	20.5
Nursing-specific clinical knowledge	0	0	1.3	29.5	44.9	24.4
General Computer literacy	3.9	2.6	2.6	29.9	31.2	29.9
Problem solving skills	0	0	1.3	20.5	62.8	15.4
Written communication skills	0	0	2.6	19.2	48.7	29.5
Verbal communication skills	0	0	3.8	15.4	50	30.8
Initiative and Adaptability	0	0	2.6	17.9	53.8	25.6
Ability to work under pressure	0	0	2.6	9	39.7	48.7
Team work	0	0	0	7.7	48.7	43.6
Ability to work independently	0	0	2.6	3.8	47.4	46.2
Planning and organisational skills	0	1.3	0	16.7	55.1	26.9
Attention to detail	0	1.3	1.3	12.8	47.4	37.2

4.2.4 **Graduates' use of skills acquired during undergraduate training**

Graduates were asked to report on the frequency of using the skills they acquired from their undergraduate training in their daily nursing practice. The graduates cited that they based their practice of nursing on current evidence occasionally (9.2%), frequently (69.7%) and very frequently (21.1%). Most of the graduates cited that they collect information on client status from a variety of sources using assessment skills frequently (50.6%) and very frequently (40.3%) while only 1.3% reported

that this occurred rarely and 7.8% cited it as occurring occasionally. Using the internet in related tasks and decision-making was very frequently understood and used by 40.3% of the graduates, while 39% used it frequently. Most of the graduates were also able to analyse information and make appropriate recommendations, and they reported that they frequently (54.5%) and very frequently (24.7%) used these skills in their daily practice. On the domain of confidently communicating with physicians, colleagues, patients and families, most of the graduates cited that they very frequently (45.5%) and frequently (45.5%) used this skill. With regard to feeling overwhelmed by patient care responsibilities and workload, most of the graduates reported that they did not feel overwhelmed very frequently (23.7%) and frequently (44.7%) (See Table 4.11).

Table 4.11: Use of Skills Acquired During Undergraduate Training

Skill	Never	Very-Rarely	Rarely	Occasionally	Frequently	Very Frequently
Base my practice on current evidence	0	0	0	9.2	69.7	21.1
Collect information on client status from variety of sources using assessment skills	0	0	1.3	7.8	50.6	40.3
Understand how to use Internet etc. related tasks and decision making	0	0	2.6	18.2	39	40.3
Analyse information and make recommendations	0	0	0	20.8	54.5	24.7
Document timeously and appropriate reports of assessments, decisions about client status, plans, interventions, and client outcomes.	0	0	0	7.8	53.2	39
Feel confident communicating with physicians, colleagues, patients and families.	0	1.3	1.3	6.5	45.5	45.5

Skill	Never	Very-Rarely	Rarely	Occasionally	Frequently	Very Frequently
Feel comfortable making suggestions for changes to the nursing plan of care.	1.3	0	2.6	15.6	51.9	28.6
Do not feel overwhelmed by patient care responsibilities and workload.	1.3	7.9	6.6	15.8	44.7	23.7
Feel at ease asking for the support of co-workers, subordinates, or supervisors to complete a task.	0	0	2.6	13	54.5	29.9
Able to make decisions on my own.	0	0	2.6	10.4	66.2	20.8
Not having difficulty prioritising and organising patient care needs.	1.3	2.6	2.6	14.3	57.1	22.1
Attention to detail is important in accomplishing an assigned task.	0	0	1.3	5.3	56.6	36.8

4.2.5 **Current employment unit**

Graduates had to indicate the clinical units they were currently working in and the majority of them were working in General Medical and Surgical wards (19.2%) followed by Community Health Care (15.4%), Outpatients (Trauma) (14.1%), Midwifery (11.5%) and Psychiatry (10.3%). A total of 9% of the graduates worked in Paediatric Units, while 3.8% worked in Theatre. A total of 2.6% of the graduates worked in TB hospitals and Gynaecology units and 1.3% of the graduates worked in each of the remaining units, as shown in Figure 4.11 below.

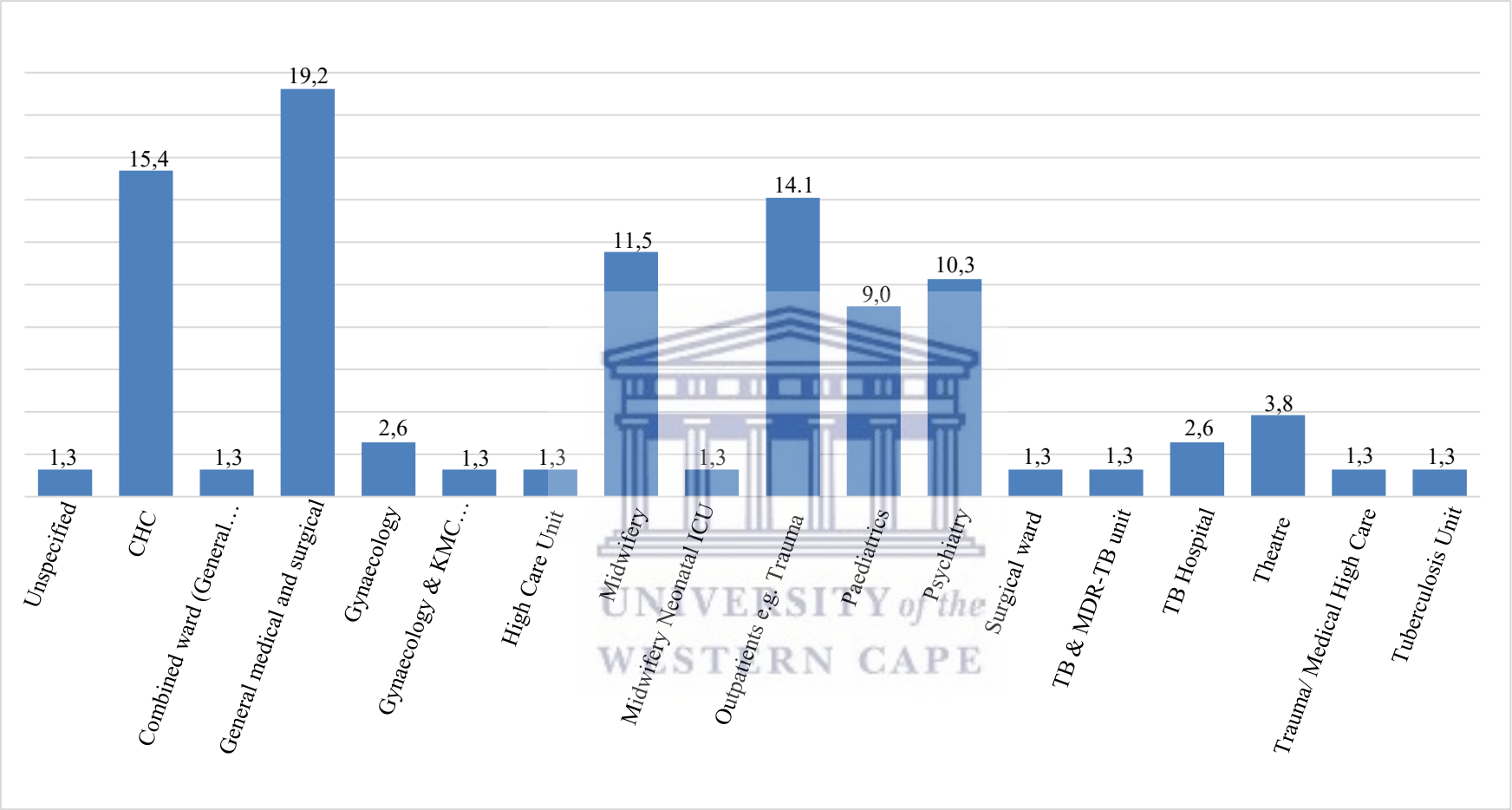


Figure 4.11: Type of unit where the graduate worked as Community Service Practioner (CSP)

4.2.6 **Graduates' experience of being students in the nursing programme**

There was overall satisfaction with graduates' experience in the nursing programme, with 20.5% of them stating that they were very happy while 46.2% of them cited that they were happy with their experience. About 29.5% of the students cited that they were indifferent or had mixed feelings of happiness and unhappiness with their experience, while only 3.8% were not happy with their experience (See Figure 4.12.

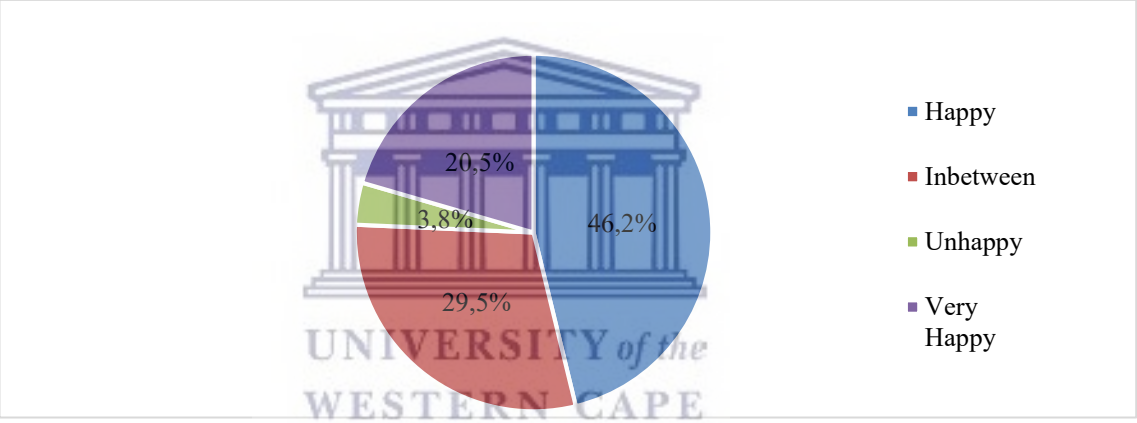


Figure 4.12: Rating of experience of being students in the nursing programme

4.2.7 **Graduate study characteristics associated with the different aspects of the nursing programme**

4.2.7.1 Graduates' mean satisfaction scores of lecturer's facilitation of class sessions

There were no significant association between the mean satisfaction scores for the rating of the lecturers' facilitation of class sessions and the graduate study characteristics such as gender (p=0.861), age group (p=0.816), marital status

(p=0.125), province where graduate attended high school (p=0.990). The difference in the mean satisfaction scores stratified by the different categories was not significant between the different groups. In addition, there was also no significant difference between the mean satisfaction scores for the facilitation skills of lecturers between groups who reported nursing as their first choice of study or not (p=0.544), those with nursing as their first tertiary qualification (p=0.411) and those who either repeated a year or not (p=0.536). Although the difference in the mean satisfaction scores between those who were registered in the Extended Curricular Programme (ECP) 5-year programme was not significant (p=0.066), there was marginal difference in the mean scores given to the facilitators by those who were registered (2.064) and those who were not registered for the ECP 5-year programme (2.221) (See Table 4.12).

Table 4.12: Facilitation of Class Session by Lecturer Stratified by Graduate Study Characteristics

	GRADUATE STUDY CHARACTERISTICS	n	MEAN	SD	SIG
1.	Gender				0.861
	Male	10	2.109	0.387	
	Female	68	2.201	0.423	
2.	Age group				0.816
	20 to 24 years old	38	2.254	0.396	
	25 to 29 years old	24	2.165	0.399	
	30 years old +	12	2.092	0.052	
3.	What is your marital status?				0.125
	Single	64	2.201	0.395	
	Married / Live-in-partner	14	2.134	0.522	
4.	What is the South African province of your high school origin?				0.990
	Western Cape	51	2.188	0.442	
	Eastern Cape	21	2.185	0.361	
	KwaZulu-Natal and Mpumalanga	6	2.212	0.452	
5.	Was the nursing degree your first tertiary qualification?				0.411
	Yes	74	2.183	0.409	
	No	4	2.308	0.615	
6.	On application, was the nursing degree your first choice of study?				0.544
	Yes	60	2.172	0.421	
	No	17	2.212	0.396	
7.	Did you have a break in study?				0.138
	Yes	9	2.293	0.601	
	No	69	2.176	0.391	
8.	Did you repeat a year?				0.536
	Yes	33	2.194	0.434	

	GRADUATE STUDY CHARACTERISTICS	n	MEAN	SD	SIG
	No	45	2.186	0.410	
9.	Were you registered in the ECP 5-year programme?				0.066
	Yes	16	2.064	0.524	
	No	62	2.221	0.384	
10.	When you completed the nursing degree, did you graduate with				0.700
	Pass	54	2.166	0.409	
	Cum laude	8	2.293	0.474	
	Summa cum laude	16	2.216	0.435	
11.	Which discipline of the programme did you enjoy the most?				0.318
	General nursing	2	1.804	0.830	
	Community health nursing	25	2.290	0.388	
	Psychiatric Nursing	22	2.170	0.430	
	Midwifery	29	2.143	0.406	
12.	Fared best (Theoretically)				0.134
	General nursing	8	2.105	0.389	
	Community health nursing	10	2.457	0.257	
	Psychiatric Nursing	34	2.210	0.422	
	Midwifery	24	2.098	0.455	
13.	Did not fare well (Theoretically)				0.786
	General nursing	42	2.218	0.415	
	Community health nursing	19	2.141	0.409	
	Psychiatric Nursing	5	2.032	0.306	
	Midwifery	7	2.199	0.646	
14.	Fared best (Clinically)				0.760
	General nursing	6	2.350	0.479	
	Community health nursing	9	2.126	0.452	
	Psychiatric Nursing	31	2.199	0.406	

	GRADUATE STUDY CHARACTERISTICS	n	MEAN	SD	SIG
	Midwifery	28	2.161	0.439	
15.	Did not fare well (Clinically)				0.851
	General nursing	44	2.214	0.422	
	Community health nursing	12	2.150	0.410	
	Psychiatric Nursing	10	2.183	0.330	
	Midwifery	8	2.076	0.588	
16.	Did you receive financial support in the form of a bursary or scholarship?				-
	Yes	77	2.200	0.410	
	No	1	1.391	-	
17.	Where did you live while studying?				0.801
	Home	47	2.202	0.454	
	University residence	26	2.189	0.388	
	Rent	5	2.070	0.136	

4.2.7.2 Graduates' mean satisfaction scores of the structure and content of the nursing programme

There were no significant associations between the mean graduate satisfaction scores for the rating of the structure and content of the nursing programme and the graduate study characteristics such as gender (p=0.895), age groups (p=0.242), marital status (p=0.138), province where graduate attended high school (p=0.412). The differences in the mean satisfaction scores stratified by the different categories were not significant between the different groups. Additionally, there was no significant difference between the graduates' mean satisfaction scores for structure and content of the nursing programme between groups who reported nursing as their first choice of study or not (p=0.259), those with nursing as their first tertiary

qualification (p=0.692) and those who either repeated a year or not (p=0.742). Although the mean graduates' satisfaction scores for the structure and content of the nursing programme varied considerably by the discipline the graduate enjoyed the most, the difference was also not significant (p=0.374), similar to the domain on students who fared best in the respective disciplines clinically (p=0.426) and theoretically (p=0.575). There was also no difference between the mean scores of graduates' ratings for the structure and content of the nursing programme amongst those who did not fare well in the different disciplines clinically (p=0.795) and theoretically (p=0.381) (See Table 4.13).

Table 4.13: Structure and Content of Programme Stratified by Graduate Study Characteristics

	GRADUATE STUDY CHARACTERISTICS	n	MEAN	SD	SIG
1.	Gender				0.895
	Male	10	2.248	0.526	
	Female	68	2.096	0.475	
2.	Age group				0.242
	20 to 24 years old	38	2.117	0.479	
	25 to 29 years old	24	2.232	0.465	
	30 years old +	12	1.946	0.496	
3.	What is your marital status?				0.138
	Single	64	2.159	0.456	
	Married / Live-in-partner	14	1.914	0.557	
4.	What is the South African province of your high school origin?				0.412
	Western Cape	51	2.076	0.501	
	Eastern Cape	21	2.234	0.455	

	GRADUATE STUDY CHARACTERISTICS	n	MEAN	SD	SIG
	KwaZulu-Natal and Mpumalanga	6	2.033	0.375	
5.	Was the nursing degree your first tertiary qualification?				0.692
	Yes	74	2.111	0.485	
	No	4	2.190	0.452	
6.	On application, was the nursing degree your first choice of study?				0.259
	Yes	60	2.081	0.496	
	No	17	2.219	0.430	
7.	Did you have a break in study?				0.605
	Yes	9	2.159	0.532	
	No	69	2.110	0.478	
8.	Did you repeat a year?				0.742
	Yes	33	2.203	0.475	
	No	45	2.051	0.480	
9.	Were you registered in the ECP 5-year programme?				0.663
	Yes	16	2.021	0.504	
	No	62	2.140	0.476	
10.	When you completed the nursing degree, did you graduate with				0.882
	Pass	54	2.118	0.443	
	Cum laude	8	2.180	0.571	
	Summa cum laude	16	2.075	0.580	
11.	Which discipline of the programme did you enjoy the most?				0.374
	General nursing	2	1.620	0.311	
	Community health nursing	25	2.179	0.440	
	Psychiatric Nursing	22	2.161	0.514	
	Midwifery	29	2.060	0.492	
12.	Fared best (Theoretically)				0.575

	GRADUATE STUDY CHARACTERISTICS	n	MEAN	SD	SIG
	General nursing	8	2.130	0.483	
	Community health nursing	10	2.272	0.306	
	Psychiatric Nursing	34	2.124	0.511	
	Midwifery	24	2.020	0.499	
13.	Did not fare well (Theoretically)				0.381
	General nursing	42	2.149	0.460	
	Community health nursing	19	2.036	0.541	
	Psychiatric Nursing	5	2.328	0.507	
	Midwifery	7	1.891	0.491	
14.	Fared best (Clinically)				0.426
	General nursing	6	2.344	0.460	
	Community health nursing	9	1.929	0.500	
	Psychiatric Nursing	31	2.155	0.474	
	Midwifery	28	2.102	0.510	
15.	Did not fare well (Clinically)				0.795
	General nursing	44	2.125	0.489	
	Community health nursing	12	1.981	0.446	
	Psychiatric Nursing	10	2.172	0.366	
	Midwifery	8	2.103	0.677	
16.	Did you receive financial support in the form of a bursary or scholarship?				-
	Yes	77	2.219	0.468	
	No	1	1.040	-	
17.	Where did you live while studying?				0.755
	Home	47	2.087	0.475	
	University residence	26	2.142	0.486	
	Rent	5	2.240	0.584	

4.2.7.3 Graduates' mean satisfaction scores for the contact time with lecturers

There were differences between the mean satisfaction scores of graduates' ratings for the contact time with lecturers in the nursing programme amongst those who did not fare well in the different disciplines clinically with mean scores of 2.074 for General Nursing, 2.022 for CHN, 2.573 for Psychiatric Nursing and lastly, 1.850 for Midwifery (p=0.045). Students who did not fare well in Psychiatric Nursing had a higher mean satisfaction score for the contact time with lecturers compared to the other three disciplines. There was also marginal difference for those who did not fare well theoretically (p=0.076) with the difference in the mean satisfaction score being 2.087 for General Nursing, 2.042 for CHN, 2.760 for Psychiatric Nursing and lastly 1.895 for Midwifery. However, there were no other significant associations between the mean graduates' satisfaction scores for the rating of the contact time with lecturers and the graduate study characteristics including gender (p=0.623), age groups (p=0.200), marital status (p=0.779), province where graduate attended high school (p=0.714). There were no significant differences between the mean scores as rated by the graduates for contact time with lecturers between groups who reported nursing as their first choice of study or not (p=0.575), those with nursing as their first tertiary qualification (p=0.796) and those who either repeated a year or not (p=0.278). Although the mean graduates' scores were significantly different when stratified by discipline for those who did not fare well, there was no significant difference for the domain on students who fared best stratified by the respective disciplines clinically (p=0.419) and theoretically (p=0.627) (See Table 4.14).

Table 4.14: Contact with Lecturers Stratified by Graduate Study Characteristics

	GRADUATE STUDY CHARACTERISTICS	n	MEAN	SD	SIG
1.	Gender				0.623
	Male	10	2.173	0.568	
	Female	68	2.115	0.608	
2.	Age group				0.200
	20 to 24 years old	38	2.232	0.552	
	25 to 29 years old	24	2.138	0.563	
	30 years old +	12	1.872	0.792	
3.	What is your marital status?				0.779
	Single	64	2.180	0.598	
	Married / Live-in-partner	14	1.862	0.559	
4.	What is the South African province of your high school origin?				0.714
	Western Cape	51	2.148	0.639	
	Eastern Cape	21	2.117	0.529	
	KwaZulu-Natal and Mpumalanga	6	1.933	0.545	
5.	Was the nursing degree your first tertiary qualification?				0.796
	Yes	74	2.133	0.605	
	No	4	1.933	0.542	
6.	On application, was the nursing degree your first choice of study?				0.575
	Yes	60	2.110	0.627	
	No	17	2.156	0.528	
7.	Did you have a break in study?				0.440
	Yes	9	2.104	0.713	
	No	69	2.125	0.590	
8.	Did you repeat a year?				0.278
	Yes	33	2.127	0.674	
	No	45	2.120	0.547	

	GRADUATE STUDY CHARACTERISTICS	n	MEAN	SD	SIG
9.	Were you registered in the ECP 5-year programme?				0.450
	Yes	16	1.883	0.729	
	No	62	2.185	0.552	
10.	When you completed the nursing degree, did you graduate with				0.601
	Pass	54	2.142	0.613	
	Cum laude	8	2.242	0.616	
	Summa cum laude	16	2.000	0.565	
11.	Which discipline of the programme did you enjoy the most?				0.301
	General nursing	2	1.500	2.121	
	Community health nursing	25	2.258	0.570	
	Psychiatric Nursing	22	2.070	0.501	
	Midwifery	29	2.090	0.561	
12.	Fared best (Theoretically)				0.627
	General nursing	8	2.267	0.963	
	Community health nursing	10	2.287	0.441	
	Psychiatric Nursing	34	2.102	0.525	
	Midwifery	24	2.033	0.628	
13.	Did not fare well (Theoretically)				0.076
	General nursing	42	2.087	0.550	
	Community health nursing	19	2.042	0.694	
	Psychiatric Nursing	5	2.760	0.332	
	Midwifery	7	1.895	0.698	
14.	Fared best (Clinically)				0.419
	General nursing	6	2.489	0.554	
	Community health nursing	9	2.156	0.530	
	Psychiatric Nursing	31	2.032	0.649	
	Midwifery	28	2.142	0.606	

	GRADUATE STUDY CHARACTERISTICS	n	MEAN	SD	SIG
15.	Did not fare well (Clinically)				0.045
	General nursing	44	2.074	0.543	
	Community health nursing	12	2.022	0.517	
	Psychiatric Nursing	10	2.573	0.471	
	Midwifery	8	1.850	0.919	
16.	Did you receive financial support in the form of a bursary or scholarship?				-
	Yes	77	2.133	0.597	
	No	1	1.333	-	
17.	Where did you live while studying?				0.408
	Home	47	2.173	0.649	
	University residence	26	2.000	0.532	
	Rent	5	2.293	0.393	

4.2.7.4 Graduates' mean satisfaction scores on the availability of resources

There were no significant associations between the mean graduates' satisfaction scores for the rating of the availability of resources in the nursing programme and the graduate study characteristics including gender (p=0.314), age groups (p=0.459), marital status (p=0.776), and province in which graduate attended high school (p=0.326). The differences observed in the mean scores for the availability of resources were also not statistically significant for differences between groups who reported nursing as their first choice of study or not (p=0.859), those with nursing as their first tertiary qualification (p=0.605) and those who either repeated a year or not (p=0.879). The graduates' mean scores for the availability of resources were marginally different when stratified by discipline for those who did not fare well clinically with mean scores of 2.131 for General Nursing, 1.797 for CHN,

2.356 for Psychiatric Nursing and 1.952 for Midwifery. (p=0.092). There were significant differences for the domain on students who did not fare well stratified by the respective disciplines theoretically (p=0.050). Amongst those who did not fare well in the different disciplines theoretically, their mean scores for the availability of resources were 2.117 for General Nursing, 2.048 for CHN, 2.507 for Psychiatric Nursing and lastly, 1.640 for Midwifery. As previously observed with the aspect on contact availability of lecturers, students who did not fare well in Psychiatry had a higher mean score for the availability of resources compared to the other three disciplines (See Table 4.15).

Table 4.15: Resources Stratified by Graduate Study Characteristics

	GRADUATE STUDY CHARACTERISTICS	n	MEAN	SD	SIG
1.	Gender				0.314
	Male	10	2.220	0.436	
	Female	68	2.066	0.558	
2.	Age group				0.459
	20 to 24 years old	38	2.119	0.554	
	25 to 29 years old	24	2.166	0.489	
	30 years old +	12	1.929	0.621	
3.	What is your marital status?				0.776
	Single	64	2.152	0.524	
	Married / Live-in-partner	14	1.785	0.547	
4.	What is the South African province of your high school origin?				0.326
	Western Cape	51	2.130	0.570	
	Eastern Cape	21	2.066	0.475	
	KwaZulu-Natal and Mpumalanga	6	1.780	0.510	

	GRADUATE STUDY CHARACTERISTICS	n	MEAN	SD	SIG
5.	Was the nursing degree your first tertiary qualification?				0.605
	Yes	74	2.109	0.532	
	No	4	1.666	0.674	
6.	On application, was the nursing degree your first choice of study?				0.859
	Yes	60	2.054	0.550	
	No	17	2.193	0.537	
7.	Did you have a break in study?				0.247
	Yes	9	2.156	0.678	
	No	69	2.077	0.529	
8.	Did you repeat a year?				0.879
	Yes	33	2.240	0.502	
	No	45	1.973	0.550	
9.	Were you registered in the ECP 5-year programme?				0.570
	Yes	16	1.987	0.521	
	No	62	2.111	0.551	
10.	When you completed the nursing degree, did you graduate with				0.215
	Pass	54	2.121	0.478	
	Cum laude	8	2.246	0.744	
	Summa cum laude	16	1.886	0.624	
11.	Which discipline of the programme did you enjoy the most?				0.443
	General nursing	2	2.091	0.638	
	Community health nursing	25	2.227	0.564	
	Psychiatric Nursing	22	1.978	0.469	
	Midwifery	29	2.045	0.576	
12.	Fared best (Theoretically)				0.512
	General nursing	8	2.291	0.473	

	GRADUATE STUDY CHARACTERISTICS	n	MEAN	SD	SIG
	Community health nursing	10	2.171	0.224	
	Psychiatric Nursing	34	1.996	0.596	
	Midwifery	24	2.097	0.574	
13.	Did not fare well (Theoretically)				0.050
	General nursing	42	2.117	0.521	
	Community health nursing	19	2.048	0.530	
	Psychiatric Nursing	5	2.507	0.314	
	Midwifery	7	1.640	0.718	
14.	Fared best (Clinically)				0.911
	General nursing	6	1.979	0.589	
	Community health nursing	9	2.181	0.633	
	Psychiatric Nursing	31	2.075	0.458	
	Midwifery	28	2.115	0.638	
15.	Did not fare well (Clinically)				0.092
	General nursing	44	2.131	0.532	
	Community health nursing	12	1.797	0.555	
	Psychiatric Nursing	10	2.356	0.470	
	Midwifery	8	1.952	0.650	
16.	Did you receive financial support in the form of a bursary or scholarship?				-
	Yes	77	2.100	0.533	
	No	1	1.000	-	
17.	Where did you live while studying?				0.940
	Home	47	2.099	0.566	
	University residence	26	2.055	0.528	
	Rent	5	2.119	0.500	

4.2.7.5 Graduates' mean satisfaction scores for clinical teaching and learning

There was a significant association between the mean scores for clinical teaching and learning stratified by whether students took a break in their study or not (p=0.033). The graduates who reported that they had taken a break in their studies had a higher mean score of satisfaction rating for the clinical teaching and learning aspect of 2.244 compared to 2.209 for those who did not take a break. On the other hand, graduates who were married or living with their partners had a marginally lower mean satisfaction score with the clinical teaching and learning provided in the programme with a mean score of 2.036 compared to 2.252 scored by those who were single (p=0.079). There were however no significant associations between the mean graduates' scores for the graduates' satisfaction rating of the clinical teaching and learning in the nursing programme and the graduate study characteristics; gender (p=0.578), age groups (p=0.189), and province where graduate attended high school (p=0.800). The differences that were observed in the satisfaction mean scores for clinical teaching and learning in the nursing programme were also not significant between groups who reported nursing as their first choice of study or not (p=0.111), those with nursing as their first tertiary qualification (p=0.401), and those who either repeated a year or not (p=0.204). In all, the mean satisfaction scores for clinical teaching and learning for the other graduate study characteristics were also not statistically different or associated with clinical teaching and learning (See Table 4.16).

Table 4.16: Clinical Teaching and Learning Stratified by Graduate Study Characteristics

	GRADUATE STUDY CHARACTERISTICS	n	MEAN	SD	SIG
1.	Gender				0.578
	Male	10	2.141	0.447	
	Female	68	2.224	0.507	
2.	Age group				0.189
	20 to 24 years old	38	2.302	0.386	
	25 to 29 years old	24	2.261	0.514	
	30 years old +	12	2.008	0.676	
3.	What is your marital status?				0.079
	Single	64	2.252	0.467	
	Married / Live-in-partner	14	2.036	0.609	
4.	What is the South African province of your high school origin?				0.800
	Western Cape	51	2.216	0.510	
	Eastern Cape	21	2.173	0.514	
	KwaZulu-Natal and Mpumalanga	6	2.328	0.372	
5.	Was the nursing degree your first tertiary qualification?				0.401
	Yes	74	2.234	0.483	
	No	4	1.833	0.706	
6.	On application, was the nursing degree your first choice of study?				0.111
	Yes	60	2.193	0.529	
	No	17	2.263	0.385	
7.	Did you have a break in study?				0.033
	Yes	9	2.244	0.711	
	No	69	2.209	0.470	
8.	Did you repeat a year?				0.204
	Yes	33	2.335	0.516	

	GRADUATE STUDY CHARACTERISTICS	n	MEAN	SD	SIG
	No	45	2.124	0.471	
9.	Were you registered in the ECP 5-year programme?				0.390
	Yes	16	2.056	0.483	
	No	62	2.254	0.498	
10.	When you completed the nursing degree, did you graduate with				0.124
	Pass	54	2.253	0.456	
	Cum laude	8	2.374	0.335	
	Summa cum laude	16	1.998	0.646	
11.	Which discipline of the programme did you enjoy the most?				0.560
	General nursing	2	1.900	0.377	
	Community health nursing	25	2.299	0.491	
	Psychiatric Nursing	22	2.133	0.492	
	Midwifery	29	2.222	0.520	
12.	Fared best (Theoretically)				0.347
	General nursing	8	2.258	0.515	
	Community health nursing	10	2.387	0.375	
	Psychiatric Nursing	34	2.099	0.534	
	Midwifery	24	2.265	0.469	
13.	Did not fare well (Theoretically)				0.528
	General nursing	42	2.215	0.450	
	Community health nursing	19	2.225	0.525	
	Psychiatric Nursing	5	2.453	0.389	
	Midwifery	7	2.014	0.784	
14.	Fared best (Clinically)				0.170
	General nursing	6	2.633	0.371	
	Community health nursing	9	2.048	0.507	
	Psychiatric Nursing	31	2.219	0.452	

	GRADUATE STUDY CHARACTERISTICS	n	MEAN	SD	SIG
	Midwifery	28	2.215	0.562	
15.	Did not fare well (Clinically)				0.703
	General nursing	44	2.205	0.518	
	Community health nursing	12	2.244	0.422	
	Psychiatric Nursing	10	2.320	0.346	
	Midwifery	8	2.042	0.693	
16.	Did you receive financial support in the form of a bursary or scholarship?				-
	Yes	77	2.230	0.479	
	No	1	0.933	-	
17.	Where did you live while studying?				0.970
	Home	47	2.203	0.509	
	University residence	26	2.223	0.507	
	Rent	5	2.255	0.431	

4.2.7.6 Graduates' mean satisfaction scores for clinical placements

Overall, the differences in the mean satisfaction scores for clinical placements in hospitals and clinics were not significant when stratified by all the graduate study characteristics. Although some of the differences in the mean scores varied widely, the differences were not significant. For instance, within the age group factor, the graduates who were 30 years and older were least satisfied with the clinical placements with a mean score of 1.700 compared to the 20-24 year-old graduates who were more satisfied with their placements as shown by the mean satisfaction score of 2.021, and the 25-29 year olds with 1.903 (p=0.258). The mean satisfaction scores for clinical placements were marginally different for marital status - single people showed more satisfaction with a mean score of 1.931 compared to 1.831 for

the married people (p=0.094). Overall, the mean satisfaction scores for the clinical placements for all the other graduate study characteristics were also not statistically different or associated (See Table 4.17).

Table 4.17: Clinical Placements (Hospitals, Clinics) Stratified by Graduate Study Characteristics

	GRADUATE STUDY CHARACTERISTICS	n	MEAN	SD	SIG
1.	Gender				0.465
	Male	10	2.040	0.672	
	Female	68	1.894	0.602	
2.	Age group				0.258
	20 to 24 years old	38	2.021	0.563	
	25 to 29 years old	24	1.903	0.571	
	30 years old +	12	1.700	0.715	
3.	What is your marital status?				0.094
	Single	64	1.931	0.576	
	Married / Live-in-partner	14	1.831	0.759	
4.	What is the South African province of your high school origin?				0.592
	Western Cape	51	1.964	0.615	
	Eastern Cape	21	1.806	0.631	
	KwaZulu-Natal and Mpumalanga	6	1.853	0.498	
5.	Was the nursing degree your first tertiary qualification?				0.777
	Yes	74	1.954	0.586	
	No	4	1.160	0.585	
6.	On application, was the nursing degree your first choice of study?				0.533
	Yes	60	1.889	0.627	
	No	17	2.012	0.563	

	GRADUATE STUDY CHARACTERISTICS	n	MEAN	SD	SIG
7.	Did you have a break in study?				0.215
	Yes	9	1.778	0.770	
	No	69	1.930	0.589	
8.	Did you repeat a year?				0.884
	Yes	33	2.033	0.572	
	No	45	1.825	0.626	
9.	Were you registered in the ECP 5-year programme?				0.660
	Yes	16	1.863	0.626	
	No	62	1.926	0.608	
10.	When you completed the nursing degree, did you graduate with				0.210
	Pass	54	1.939	0.565	
	Cum laude	8	2.150	0.568	
	Summa cum laude	16	1.708	0.737	
11.	Which discipline of the programme did you enjoy the most?				0.702
	General nursing	2	1.820	0.028	
	Community health nursing	25	2.029	0.647	
	Psychiatric Nursing	22	1.891	0.583	
	Midwifery	29	1.836	0.620	
12.	Fared best (Theoretically)				0.615
	General nursing	8	2.090	0.416	
	Community health nursing	10	2.052	0.438	
	Psychiatric Nursing	34	1.831	0.663	
	Midwifery	24	1.887	0.653	
13.	Did not fare well (Theoretically)				0.238
	General nursing	42	1.849	0.550	
	Community health nursing	19	1.989	0.575	
	Psychiatric Nursing	5	2.216	0.832	

	GRADUATE STUDY CHARACTERISTICS	n	MEAN	SD	SIG
	Midwifery	7	1.549	0.855	
14.	Fared best (Clinically)				0.337
	General nursing	6	1.847	0.462	
	Community health nursing	9	1.680	0.590	
	Psychiatric Nursing	31	2.050	0.558	
	Midwifery	28	1.823	0.711	
15.	Did not fare well (Clinically)				0.639
	General nursing	44	1.965	0.617	
	Community health nursing	12	1.813	0.451	
	Psychiatric Nursing	10	1.908	0.582	
	Midwifery	8	1.680	0.894	
16.	Did you receive financial support in the form of a bursary or scholarship?				-
	Yes	77	1.930	0.593	
	No	1	0.600	-	
17.	Where did you live while studying?				0.866
	Home	47	1.903	0.604	
	University residence	26	1.903	0.664	
	Rent	5	2.056	0.377	

4.2.7.7 Graduates' mean satisfaction scores for clinical supervision

The graduates' mean satisfaction scores for the clinical supervision differed, however marginally, between those who were single, with a higher mean satisfaction score of 2.122 compared to 1.957 amongst those who were married (p=0.057). There were however no significant differences between the mean graduates' satisfaction rating of the clinical supervision provided in the nursing programme stratified by other graduate study characteristics such as age group

(p=0.243), province where graduate attended high school (p=0.938), and gender (p=0.376). The differences that were observed in the satisfaction mean scores for the clinical supervision provided in the nursing programme were also not significant between groups who reported nursing as their first choice of study or not (p=0.967), those with nursing as their first tertiary qualification (p=0.605) and those who either repeated a year or not (p=0.355) (See Table 4.18).

Table 4.18: Clinical Supervision Stratified by Graduates Study Characteristics

	GRADUATE STUDY CHARACTERISTICS	N	MEAN	SD	SIG
1.	Gender				0.376
	Male	10	2.079	0.438	
	Female	68	2.094	0.509	
2.	Age group				0.243
	20 to 24 years old	38	2.117	0.421	
	25 to 29 years old	24	2.210	0.527	
	30 years old +	12	1.911	0.644	
3.	What is your marital status?				0.057
	Single	64	2.122	0.460	
	Married / Live-in-partner	14	1.957	0.647	
4.	What is the South African province of your high school origin?				0.938
	Western Cape	51	2.082	0.523	
	Eastern Cape	21	2.125	0.495	
	KwaZulu-Natal and Mpumalanga	6	2.067	0.306	
5.	Was the nursing degree your first tertiary qualification?				0.605
	Yes	74	2.117	0.491	
	No	4	1.645	0.459	

	GRADUATE STUDY CHARACTERISTICS	N	MEAN	SD	SIG
6.	On application, was the nursing degree your first choice of study?				0.967
	Yes	60	2.065	0.512	
	No	17	2.188	0.464	
7.	Did you have a break in study?				0.099
	Yes	9	1.925	0.715	
	No	69	2.114	0.465	
8.	Did you repeat a year?				0.355
	Yes	33	2.245	0.510	
	No	45	1.980	0.463	
9.	Were you registered in the ECP 5-year programme?				0.415
	Yes	16	2.107	0.569	
	No	62	2.089	0.483	
10.	When you completed the nursing degree, did you graduate with				0.108
	Pass	54	2.138	0.467	
	Cum laude	8	2.236	0.322	
	Summa cum laude	16	1.866	0.617	
11.	Which discipline of the programme did you enjoy the most?				0.514
	General nursing	2	1.856	0.299	
	Community health nursing	25	2.210	0.468	
	Psychiatric Nursing	22	2.036	0.461	
	Midwifery	29	2.050	0.558	
12.	Fared best (Theoretically)				0.204
	General nursing	8	2.319	0.416	
	Community health nursing	10	2.256	0.284	
	Psychiatric Nursing	34	1.975	0.535	
	Midwifery	24	2.091	0.515	

	GRADUATE STUDY CHARACTERISTICS	N	MEAN	SD	SIG
13.	Did not fare well (Theoretically)				0.554
	General nursing	42	2.076	0.476	
	Community health nursing	19	2.028	0.535	
	Psychiatric Nursing	5	2.360	0.466	
	Midwifery	7	1.959	0.638	
14.	Fared best (Clinically)				0.410
	General nursing	6	2.194	0.409	
	Community health nursing	9	1.840	0.393	
	Psychiatric Nursing	31	2.152	0.460	
	Midwifery	28	2.071	0.600	
15.	Did not fare well (Clinically)				0.902
	General nursing	44	2.109	0.547	
	Community health nursing	12	2.035	0.376	
	Psychiatric Nursing	10	2.084	0.420	
	Midwifery	8	1.974	0.597	
16.	Did you receive financial support in the form of a bursary or scholarship?				-
	Yes	77	2.107	0.485	
	No	1	1.000	-	
17.	Where did you live while studying?				0.802
	Home	47	2.075	0.511	
	University residence	26	2.098	0.509	
	Rent	5	2.231	0.354	

4.2.7.8 Graduates' mean satisfaction scores for resources in skills laboratories

The satisfaction score for the provision of resources for skills laboratories were significantly different between students who had taken a break from their studies

and those who had not taken a break with mean scores of 2.036 and 1.973 respectively (p=0.005). The availability of resources for skills laboratories also differed statistically; however marginally, between those who were single, with a higher mean satisfaction score of 2.026 compared to 1.771 amongst those who were married (p=0.057). There was also a marginal difference between the mean satisfaction scores between the males (2.013) and the females (1.975) (p=0.088). However, there were no significant differences between the mean graduates' satisfaction rating of the resources provided for skills laboratories in the nursing programme stratified by other graduate study characteristics such as age group (p=0.121), or province where graduate attended high school (p=0.950). The satisfaction mean scores for the resources provided for skills laboratories in the nursing programme were also not significant between groups who reported nursing as their first choice of study or not (p=0.559), those with nursing as their first tertiary qualification (p=0.974), and those who either repeated a year or not (p=0.699) (See Table 4.19).

Table 4.19: Resources for Skills Laboratories Stratified by Graduate Study Characteristics

	GRADUATE STUDY CHARACTERISTICS	n	MEAN	SD	SIG
1.	Gender				0.088
	Male	10	2.013	0.374	
	Female	68	1.975	0.586	
2.	Age group				0.121
	20 to 24 years old	38	2.068	0.533	
	25 to 29 years old	24	2.050	0.532	

	GRADUATE STUDY CHARACTERISTICS	n	MEAN	SD	SIG
	30 years old +	12	1.700	0.637	
3.	What is your marital status?				0.057
	Single	64	2.026	0.514	
	Married / Live-in-partner	14	1.771	0.727	
4.	What is the South African province of your high school origin?				0.950
	Western Cape	51	1.990	0.600	
	Eastern Cape	21	1.978	0.532	
	KwaZulu-Natal and Mpumalanga	6	1.911	0.347	
5.	Was the nursing degree your first tertiary qualification?				0.974
	Yes	74	2.023	0.533	
	No	4	1.183	0.548	
6.	On application, was the nursing degree your first choice of study?				0.559
	Yes	60	1.948	0.578	
	No	17	2.067	0.508	
7.	Did you have a break in study?				0.005
	Yes	9	2.036	0.900	
	No	69	1.973	0.511	
8.	Did you repeat a year?				0.699
	Yes	33	2.057	0.555	
	No	45	1.924	0.566	
9.	Were you registered in the ECP 5-year programme?				0.724
	Yes	16	1.896	0.615	
	No	62	2.002	0.550	
10.	When you completed the nursing degree, did you graduate with				0.815
	Pass	54	1.999	0.515	
	Cum laude	8	2.017	0.669	

	GRADUATE STUDY CHARACTERISTICS	n	MEAN	SD	SIG
	Summa cum laude	16	1.900	0.681	
11.	Which discipline of the programme did you enjoy the most?				0.249
	General nursing	2	1.433	0.801	
	Community health nursing	25	2.117	0.540	
	Psychiatric Nursing	22	1.876	0.496	
	Midwifery	29	1.979	0.603	
12.	Fared best (Theoretically)				0.477
	General nursing	8	2.083	0.595	
	Community health nursing	10	2.126	0.429	
	Psychiatric Nursing	34	1.867	0.584	
	Midwifery	24	2.039	0.592	
13.	Did not fare well (Theoretically)				0.342
	General nursing	42	2.008	0.574	
	Community health nursing	19	1.951	0.569	
	Psychiatric Nursing	5	2.213	0.511	
	Midwifery	7	1.638	0.665	
14.	Fared best (Clinically)				0.891
	General nursing	6	1.911	0.288	
	Community health nursing	9	1.919	0.421	
	Psychiatric Nursing	31	2.036	0.554	
	Midwifery	28	1.936	0.692	
15.	Did not fare well (Clinically)				0.239
	General nursing	44	2.071	0.595	
	Community health nursing	12	1.794	0.377	
	Psychiatric Nursing	10	1.993	0.613	
	Midwifery	8	1.700	0.620	
16.	Did you receive financial support in the form of a bursary or scholarship?				-

	GRADUATE STUDY CHARACTERISTICS	n	MEAN	SD	SIG
	Yes	77	1.989	0.560	
	No	1	1.333	-	
17.	Where did you live while studying?				0.753
	Home	47	1.946	0.602	
	University residence	26	2.049	0.519	
	Rent	5	1.947	0.420	

4.2.8 **Graduates' mean satisfaction scores for rating of competencies acquired**

The mean satisfaction scores for the graduates' rating of competencies acquired during the undergraduate nursing programme were not statistically different when stratified by the graduate study characteristics; gender (p=0.469), age group (p=0.557), marital status (p=0.900), or province where graduate attended high school (p=0.835). The difference between the mean satisfaction scores for rating of competencies acquired were not different between groups who reported nursing as their first choice of study or not (p=0.694), those who took a break in studies or did not (p=0.978), those registered in the ECP 5-year programme (p=0.776) and those who either repeated a year or not (p=0.695) (See Table 4.20).

Table 4.20: The Graduate rating of competencies acquired during the undergraduate nursing programme.

	GRADUATE STUDY CHARACTERISTICS	n	MEAN	SD	SIG
1.	Gender				0.469
	Male	10	4.027	0.422	
	Female	68	4.099	0.614	
2.	Age group				0.557
	20 to 24 years old	38	4.091	0.503	
	25 to 29 years old	24	4.220	0.501	
	30 years old +	12	4.053	0.620	
3.	What is your marital status?				0.900
	Single	64	4.114	0.606	
	Married / Live-in-partner	14	3.981	0.521	
4.	What is the South African province of your high school origin?				0.835
	Western Cape	51	4.061	0.550	
	Eastern Cape	21	4.139	0.726	
	KwaZulu-Natal and Mpumalanga	6	4.167	0.465	
5.	Was the nursing degree your first tertiary qualification?				0.934
	Yes	74	4.092	0.594	
	No	4	4.045	0.619	
6.	On application, was the nursing degree your first choice of study?				0.694
	Yes	60	4.109	3.989	
	No	17	3.989	0.593	
7.	Did you have a break in study?				0.978
	Yes	9	4.283	0.490	
	No	69	4.065	0.601	
8.	Did you repeat a year?				0.695
	Yes	33	4.193	0.525	

	GRADUATE STUDY CHARACTERISTICS	n	MEAN	SD	SIG
	No	45	4.014	0.630	
9.	Were you registered in the ECP 5-year programme?				0.776
	Yes	16	4.017	0.556	
	No	62	4.109	0.603	
10.	When you completed the nursing degree, did you graduate with				0.769
	Pass	54	4.089	0.651	
	Cum laude	8	4.216	0.270	
	Summa cum laude	16	4.028	0.498	
11.	Which discipline of the programme did you enjoy the most?				0.758
	General nursing	2	3.818	0.257	
	Community health nursing	25	4.084	0.702	
	Psychiatric Nursing	22	4.021	0.663	
	Midwifery	29	4.166	0.436	
12.	Fared best (Theoretically)				0.340
	General nursing	8	4.182	0.615	
	Community health nursing	10	4.318	0.508	
	Psychiatric Nursing	34	3.957	0.702	
	Midwifery	24	4.114	0.411	
13.	Did not fare well (Theoretically)				0.920
	General nursing	42	4.067	0.530	
	Community health nursing	19	4.115	0.731	
	Psychiatric Nursing	5	4.236	0.466	
	Midwifery	7	4.013	0.745	
14.	Fared best (Clinically)				0.165
	General nursing	6	4.561	0.454	
	Community health nursing	9	3.859	0.680	
	Psychiatric Nursing	31	4.100	0.507	

	GRADUATE STUDY CHARACTERISTICS	n	MEAN	SD	SIG
	Midwifery	28	4.071	0.661	
15.	Did not fare well (Clinically)				0.697
	General nursing	44	4.052	0.661	
	Community health nursing	12	4.227	0.443	
	Psychiatric Nursing	10	4.182	0.404	
	Midwifery	8	3.955	0.639	
16.	Did you receive financial support in the form of a bursary or scholarship?				-
	Yes	77	4.106	0.576	
	No	1	2.818	-	
17.	Where did you live while studying?				0.756
	Home	47	4.058	0.585	
	University residence	26	4.115	0.638	
	Rent	5	4.255	0.443	

4.2.9 **Graduates' mean satisfaction scores for use of skills acquired**

The graduates' ratings on their use of skills acquired during undergraduate training were different when stratified by the level of pass they acquired when they graduated (p=0.048). Graduates who completed with a Pass had a mean score of 5.078 for their use of skills acquired, while those with Cum Laude had a score of 5.479 and lastly, the Summa Cum laude with 5.025. There were no significant differences between the mean graduates' satisfaction scores for the skills acquired during undergraduate training and the graduate study characteristics including gender (p=0.488), age groups (p=0.474), marital status (p=0.455), and province where graduate attended high school (p=0.208). The differences observed in the mean scores for the use of skills acquired during undergraduate training were also not significantly different between disciplines the graduates enjoyed the most (p=0.277), groups who reported nursing as their first choice of study or not (p=0.330), those with nursing as their first tertiary qualification (p=0.686), and those who either repeated a year or not (p=0.128). Although the mean scores on the use of skills acquired were overall higher than all the other domains reported with most scores being higher than 4.5, there were no significant differences between the mean scores stratified by the different graduate study characteristics. For instance, for the domain on students who did not fare well stratified by the respective disciplines theoretically (p=0.522) and clinically (p=0.521) (See Table 4.21).

Table 4.21: Use of Skills Acquired During Undergraduate Training Stratified by Graduate Study Characteristics

	GRADUATE STUDY CHARACTERISTICS	n	MEAN	SD	SIG
1.	Gender				0.488
	Male	10	4.973	0.412	
	Female	68	5.129	0.465	
2.	Age group				0.474
	20 to 24 years old	38	5.180	0.379	
	25 to 29 years old	24	5.128	0.473	
	30 years old +	12	4.999	0.575	
3.	What is your marital status?				0.455
	Single	64	5.115	0.482	
	Married / Live-in-partner	14	5.077	0.348	
4.	What is the South African province of your high school origin?				0.208
	Western Cape	51	5.176	0.437	
	Eastern Cape	21	4.981	0.515	
	KwaZulu-Natal and Mpumalanga	6	4.986	0.370	
5.	Was the nursing degree your first tertiary qualification?				0.686
	Yes	74	5.108	0.458	
	No	4	5.121	0.540	
6.	On application, was the nursing degree your first choice of study?				0.330
	Yes	60	5.097	0.483	
	No	17	5.152	0.389	
7.	Did you have a break in study?				0.375
	Yes	9	5.279	0.375	
	No	69	5.086	0.467	
8.	Did you repeat a year?				0.128
	Yes	33	5.182	0.362	

	GRADUATE STUDY CHARACTERISTICS	n	MEAN	SD	SIG
	No	45	5.055	0.516	
9.	Were you registered in the ECP 5-year programme?				0.310
	Yes	16	5.125	0.545	
	No	62	5.104	0.439	
10.	When you completed the nursing degree, did you graduate with				0.048
	Pass	54	5.078	0.427	
	Cum laude	8	5.479	0.305	
	Summa cum laude	16	5.025	0.558	
11.	Which discipline of the programme did you enjoy the most?				0.277
	General nursing	2	4.875	0.412	
	Community health nursing	25	5.067	0.552	
	Psychiatric Nursing	22	5.011	0.457	
	Midwifery	29	5.234	0.356	
12.	Fared best (Theoretically)				0.548
	General nursing	8	5.259	0.510	
	Community health nursing	10	5.101	0.263	
	Psychiatric Nursing	34	5.049	0.516	
	Midwifery	24	5.180	0.343	
13.	Did not fare well (Theoretically)				0.522
	General nursing	42	5.105	0.419	
	Community health nursing	19	5.188	0.489	
	Psychiatric Nursing	5	5.162	0.494	
	Midwifery	7	4.881	0.658	
14.	Fared best (Clinically)				0.458
	General nursing	6	5.345	0.426	
	Community health nursing	9	4.981	0.609	
	Psychiatric Nursing	31	5.116	0.402	

	GRADUATE STUDY CHARACTERISTICS	n	MEAN	SD	SIG
	Midwifery	28	5.166	0.429	
15.	Did not fare well (Clinically)				0.521
	General nursing	44	5.116	0.440	
	Community health nursing	12	5.249	0.349	
	Psychiatric Nursing	10	5.164	0.405	
	Midwifery	8	4.948	0.635	
16.	Did you receive financial support in the form of a bursary or scholarship?				-
	Yes	77	5.126	0.435	
	No	1	3.750	-	
17.	Where did you live while studying?				0.735
	Home	47	5.134	0.394	
	University residence	26	5.051	0.581	
	Rent	5	5.167	0.363	

4.3 EMPLOYER SURVEY

4.3.1 **Classification of the health facilities of employers**

The type of healthcare facilities where the CSPs were employed was reported by the employers surveyed. The majority of the employers included in the employer survey were from tertiary hospitals (36%), and community health care centers (CHC) (33%). The remaining were from district hospitals (15%) and regional hospitals (16%) (See Figure 4.13).

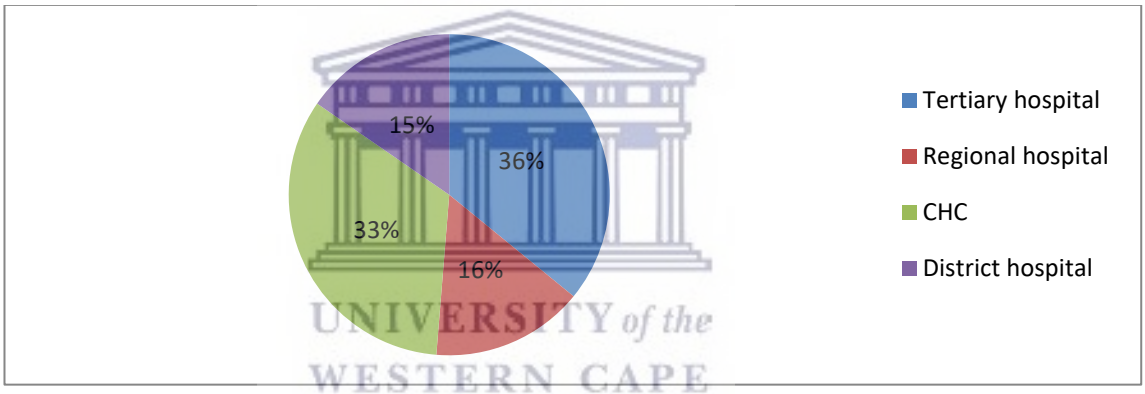


Figure 4.13: Healthcare Facility Category

4.3.2 **Type of work unit**

The type of unit the employers were working in were reported on, and the majority of the employers were working in the Midwifery unit (17.5%), Paediatrics (10%), CHN (10%), Outpatients units (Trauma) (7.5%) and General Medical and Surgical units (7.5%). Psychiatric units represented 5% of the employers who participated in the survey. (See Figure 4.14)

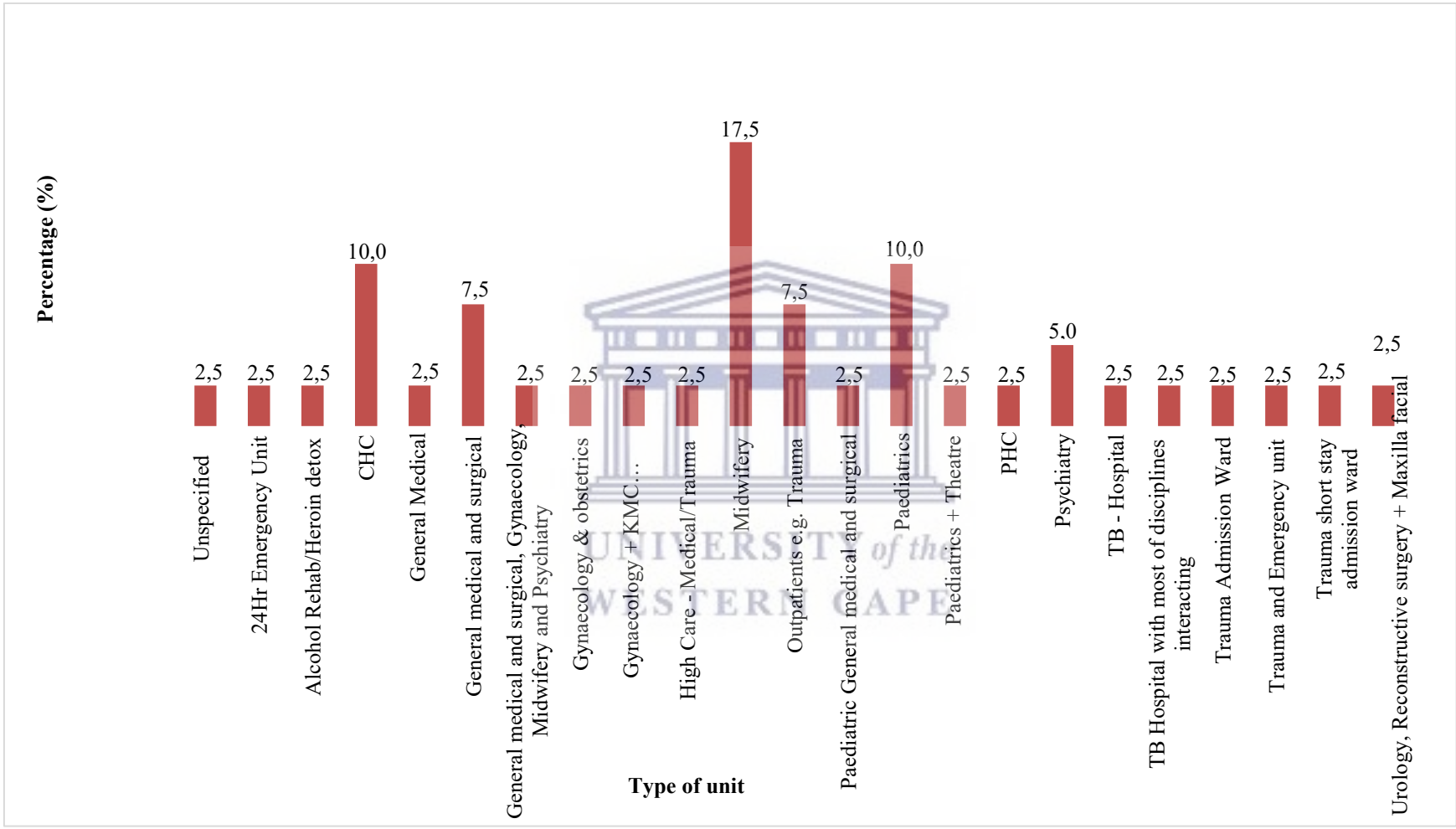


Figure 4.14: Type of unit

4.3.3 **Supervision of a community service practitioner who graduated from the University**

Majority of the employers (97%) who took part in the employers' survey were currently supervising a CSP from the University included in the study while only 3% indicated that they were currently not supervising any graduates. The graduates rotated in the clinical facilities during the community service year and therefore. if the student recently rotated, the previous unit or ward direct supervisor was asked to complete the survey. This would be the reason why some employers indicated that they were not currently supervising any graduates (See Figure 4.15).

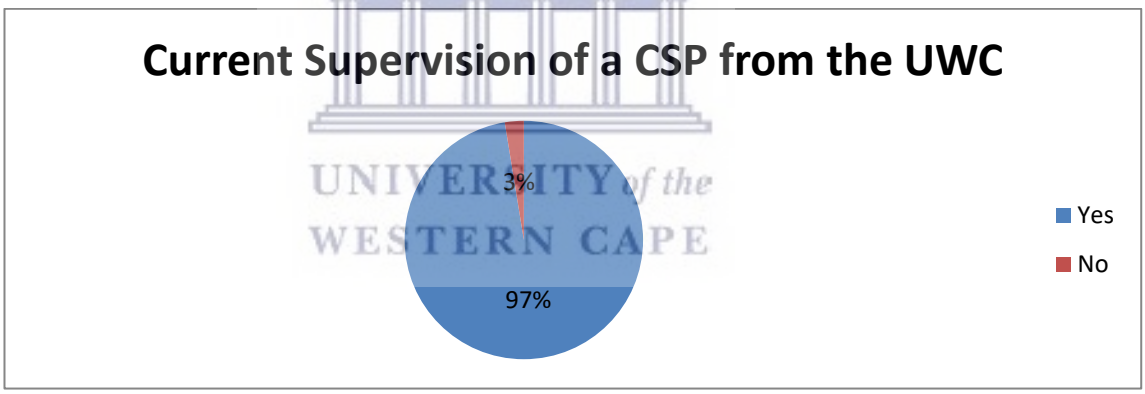


Figure 4.15: Current Supervision of a CSP from the UWC

4.3.4 **Employer rating of graduates' competence**

Only eight (8) of the graduates were rated with a competency score of over 70%, with two students rated 71%, one 75%, and one 82%. Two (2) students each were scored 96% and 100% respectively. In addition, nine (9) students had a competency score between 60% and 69%, with two (2) rated 61%, five (5) rated 64%, and the remaining two (2) rated 68%. The graduates rated average from 50% to 59% were

thirteen (13), with most of the employers scoring the majority of them (nine graduates) at 50%. The remaining graduates were all scored below 50% with four (4) scoring 46%, one scoring 32% and two scoring 14% and one scoring 7%. The number, assigned for anonymity, of the graduates and their scores are provided in Table 4.22 below, as well as the health facility where the graduate was placed for community service.

Table 4.22: Students' competency scores as rated by employers

Graduate Number	Employer competency rating	Health facility name
8	100	Vredendal Hospital
51	100	Lotus River CDC
5	96	Red Cross War Memorial Children's Hospital
9	96	GSH
35	82	Groote Schuur Hospital
23	75	Hermanus CDC
40	71	Alexandra Psychiatric Hospital
14	71	Groote Schuur Hospital
52	68	Karl Bremer Hospital
28	68	Site B CHC
34	64	Elsies River CHC
57	64	Kensington CDC
7	64	Karl Bremer Hospital
37	64	Macassar CDC
3	64	TBH
42	61	Swartland Hospital
32	61	Mitchell's Plain CHC
29	57	TBH

Graduate Number	Employer competency rating	Health facility name
43	57	Alexandra Hospital
36	57	Stikland Hospital
33	54	Mitchell's Plain Community health centre
41	50	Red Cross War Memorial Children's Hospital
64	50	Swartland Hospital
15	50	Groote Schuur Hospital
26	50	Red Cross Children Hospital
27	50	Victoria Hospital
4	50	Stellenbosch Hospital
2	50	Mowbray Maternity Hospital
6	50	Tygerberg Hospital
46	50	Khayelitsha Site B CDC
48	46	Metro TB Complex/Brooklyn Chest Hospital
44	46	Metro TB Complex: D.P. Marais Hospital
38	46	Metro TB Complex D.P. Marais Hospital
19	46	Bellville South CDC
18	32	Hanover Park Community Health Center
73	14	Karl Bremer Hospital
16	14	Mowbray Maternity Hospital
30	7	New Somerset Hospital

4.3.5 **Attributes and competencies required for effective functioning as expected by employers**

Employers were required to indicate which competencies and attributes they considered and required CSPs to have for effective functioning in practice. The knowledge of nursing-specific clinical skills was rated highest as very important

(95.0%) and important (5.0%) by the employers. Likewise, the importance of teamwork was also underscored with most of the employers rating that it was very important (95.0%) and the remaining 5.0% cited that it was important. The ability to work independently was also rated as very important by 77.5% of the employers. Nursing-specific theoretical knowledge and ability to work under pressure were highlighted as very important by 85.0% of the employers and as important by 15.0% of them. Problem-solving skills and paying attention to detail were also reported as very important by 84.6% and 82.1% of the employers, respectively. Verbal communication was also rated high as very important (82.1%) and important (17.9%). Planning and organising skills, analytical skills and initiative were rated very important by 75.0%, 70.3% and 60.0% of the employers, respectively. Verbal communication skills and written communication skills were also rated very important (82.1% and 80.0%) while computer literacy was rated as important by 70.0% of the employers and as not important by 20.0% of them (See Table 4.23).

Table 4.23: Employer ratings (%) on attributes and competencies required for effective functioning

Item	Not Important	Important	Very Important
Nursing-specific clinical knowledge	0.0	5.0	95.0
Teamwork	0.0	5.0	95.0
Nursing-specific theoretical knowledge	0.0	15.0	85.0
Ability to work under pressure	0.0	15.0	85.0
Problem solving skills	0.0	15.4	84.6
Verbal communication skills	0.0	17.9	82.1
Attention to detail	0.0	17.9	82.1

Item	Not Important	Important	Very Important
Written communication skills	0.0	20.0	80.0
Ability to work independently	0.0	22.5	77.5
Planning and organisational skills	0.0	25.0	75.0
Analytical skills	0.0	29.7	70.3
Adaptability	0.0	34.2	65.8
Initiative	0.0	40.0	60.0
Computer literacy	20.0	70.0	10.0

4.3.6 **Ratings of CSP attributes and competencies by employers**

Most of the employers rated the CSPs as competent or proficient in most of the skills that they were required to perform. Majority of the CSPs were mostly competent in problem solving (79.5%), while 10.3% were proficient and 10.3% were reportedly incompetent. Nursing-specific theoretical knowledge was reported as an attribute where no one was incompetent with 77.5% reportedly competent while 22.5% were reported as proficient. On the other hand, the nursing-specific clinical knowledge had 5% of the CSPs reported as incompetent, against 72.5% who were reported as competent and 22.5% who were cited as proficient. The attribute with the most proficient CSPs, as rated by the employers, was teamwork (50%) while 44.7% were rated as competent and 5.3% were reported as incompetent in teamwork. On the other hand, 53.8% of the CSPs were rated as competent at working independently, and 38.5% were reportedly proficient, and 7.7% were reportedly incompetent to work independently. The ability to work under pressure was also reportedly high with 56.4% of the CSPs cited as competent, and 35.9% was reportedly proficient in this attribute (See Table 4.24).

Table 4.24: Employers' ratings (%) of CSP attributes and competencies by skills

Item	Not Yet Competent	Competent	Proficient
Problem solving skills	10.3	79.5	10.3
Nursing-specific theoretical knowledge	0.0	77.5	22.5
Planning and organisational skills	10.3	74.4	15.4
Analytical skills	10.5	73.7	15.8
Nursing-specific clinical knowledge	5.0	72.5	22.5
Written communication skills	2.6	68.4	28.9
Attention to detail	10.3	66.7	23.1
Verbal communication skills	5.1	64.1	30.8
Adaptability	7.9	63.2	28.9
Initiative	13.2	60.5	26.3
Computer literacy	10.8	56.8	32.4
Ability to work under pressure	7.7	56.4	35.9
Ability to work independently	7.7	53.8	38.5
Teamwork	5.3	44.7	50.0

4.3.7 **Availability of structured support for CSPs in health facilities**

According to most of the CSP employers in most facilities, there was a lack of structured support available to assist the CSP's transition from the university to the world of work. For instance, only 21.6% reported that there was a structured orientation programme available in their facility for the new CSPs while only 24.3% also had a structured mentorship programme and lastly, 10.8% had a combined structured mentorship and supervision programme. Only 27.0% of the employers reported the existence of a peer supervision system in their facilities (See Figure 4.16).

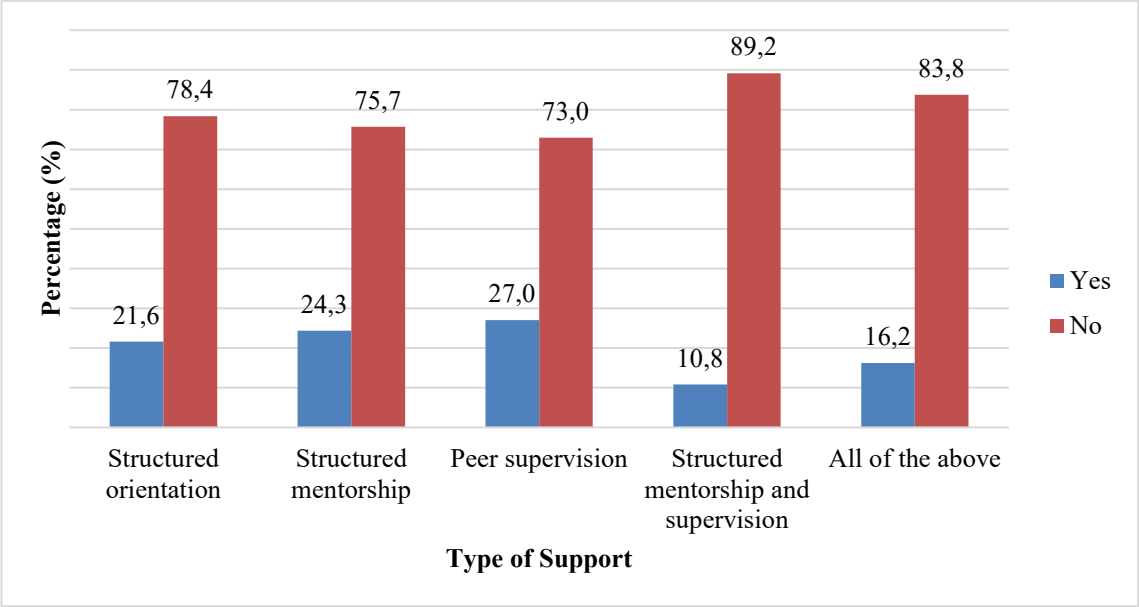


Figure 4.16: Support systems available to support CSP's transition into the practice

4.3.8 **Areas of speciality reportedly in need of improvement**

According to the employers' survey, the specialties in need of improvement in the theoretical training by the HEI included general medical and surgical nursing, as reported by ten (10) employers surveyed. The suggested theoretical improvement was particularly cited for basic nursing care, nursing care of patients in the acute phase of a medical condition, patient advocacy, problem solving and applying theory to practice and the integration of general medical conditions to Psychiatry. Midwifery was the second most common speciality reported by seven (7) employers as requiring improvement, with theoretical training improvement suggested for cardiotocograph (CTG) interpretation and referral aspect techniques. CHN was cited by six (6) employers as needing theory training in handling and management of conflict. In the Paediatrics speciality, the skills suggested for improvement by four (4) employers were managing of the "First 1000 days",

immunisation, neonatology, congenital defects and burns. For theatre, infection control and knowledge of major procedures were emphasised as requiring further theoretical training. In Orthopaedics, wound care, applying a cast such as Plaster of Paris reportedly need improvement. For Gynaecology, special mention for STI knowledge was stressed, while for Psychiatry, knowledge of substance abuse was underscored (See Table 4.25).

Table 4.25: Number of Employers Who Reported Need for Improvement in Theoretical Training

Speciality	**Number of Employers Reporting Need for Improvement**	**Suggestions**
General medical and surgical	10	Basic nursing care, nursing care of a patient in the acute phase of a medical condition, Patient advocacy, Problem solving and applying theory to practice, Integrate general medical conditions to psychiatry
Midwifery	7	CTG Interpretation, Referral aspect
CHC	6	Conflict Management
Paediatrics	4	Immunisation/ First 1000 days, Neonatology, Congenital Defects &Burns
Theatre	4	Infection control, Major procedures knowledge
Outpatients, e.g. Trauma	3	Occupational health and safety, Triage skills
Gynaecology	2	STI
Orthopaedics	2	Wound care, Applying cast equipment (e.g. how to apply plaster of Paris)
Psychiatry	2	Substance Abuse

4.3.9 **Areas of speciality reportedly in need of clinical training improvement**

According to the employer survey, the speciality having the greatest need for improvement in clinical training as reported by ten (10) employers was general, medical and surgical nursing. The suggested improvement was particularly cited in areas of clinical exposure, dressings, medication and post-operative care plans, on-site teaching of graduates at the bedside and physical assessment.

The second most common speciality where improvement was also recommended were Midwifery (6 employers) and theatre (6 employers), with the former having specific training suggestions such as obstetric emergencies, second stage of labour skills such as interpretation of partogram, delivery of breech and shoulder dystocia while for the latter suggested skills that required improvement in theatre techniques. Another speciality with a higher request for improved training as reported by the employers (6) was the Outpatient speciality, particularly trauma with suturing, triage skills suggested as mostly requiring improvement.

In CHN, five (5) employers reported the need for improvement, particularly with the handling of grievances by the nurse graduates. In Orthopaedics, four (4) employers reported the need for improvement in traction while in Paediatrics, the skills suggested for improvement were managing of the “First 1000 days” and physical assessments.

Lastly, three (3) employers reported the need for improvement in Gynaecology with special mention of continuous supervision, practical for gynaecology, Pap smear skills training, while in Psychiatry three (3) employers also highlighted the need for further training on interviewing (See Table 4.26).

Table 4.26: Number of Employers Who Reported Need for Improvement in Clinical Abilities Training

Speciality	Number of Employers Reporting Need for Improvement	Suggestions
General medical and surgical	10	Clinical exposure, Dressings, medication & post-operative care plans, On-site teaching of graduates at the bedside, Physical assessment, Psychiatry
Midwifery	6	Obstetric Emergencies, 2nd stage of labour, e.g. Interpretation of partogram, delivery of breech, shoulder dystocia etc.
Theatre	6	Theatre techniques,
Outpatients e.g. Trauma	6	Suturing, Triage skills
CHC	5	Grievance handling
Orthopaedics	4	Traction
Paediatrics	4	First 1000 days, Physical assessment
Gynaecology	3	Continuous supervision, Practical of gynaecology, Pap smear
Psychiatry	3	Interviews

4.4 RELATIONSHIPS BETWEEN EMPLOYER RATINGS OF COMPETENCE WITH GRADUATE RATINGS ON DIFFERENT CONSTRUCTS AND ASPECTS

Correlation coefficients were computed to identify if there were any factors correlated between the graduates' rating of different items and aspects as well as between employer competency ratings and graduate ratings. There were some weak and non-statistically significant correlations between the graduate ratings of the training programme including facilitation (0.081), structure and content (0.019),

contact with lecturers (0.074), availability of resources (0.108), clinical supervision (-0.120) and clinical placements (0.057) with the employers' rating of the graduates' competencies. In addition, there was no correlation between the graduates' ratings of the competencies they acquired during undergraduate training (-0.021) and the employers' ratings of their competencies. There was a weak negative but insignificant correlation between their use of skills acquired during undergraduate training and the employers' ratings of their competencies (-0.113).

There were positive (weak, moderate and strong) significant correlations between the facilitation of class sessions by lecturers with all the other domains measured. There were strong positive correlations with structure and content (0.654) and moderately strong correlations with contact with lecturers (0.494), availability of resources (0.583), clinical supervision (0.519), graduates' rating of competencies gained during their undergraduate programme (0.481) and use of skills acquired during undergraduate training (0.475) while there were weak positive correlations with clinical placements (0.341). Structure and content of the programme or modules were strongly correlated to contact time with lecturers (0.706), availability of resources (0.729), clinical teaching and learning (0.714) as well as clinical supervision (0.724). The structure was also moderately correlated to the resources available for skills laboratories (0.508), graduates' rating of competencies gained during their undergraduate programme (0.564) and use of skills acquired during training (0.523).

The contact time with the lecturers was associated with the availability of teaching and learning resources (0.645), clinical teaching and learning (0.587), clinical supervision (0.657), and resources available for skills laboratories (0.509). The

contact time was also moderately correlated with the graduates' rating of competencies gained during their undergraduate programme (0.521) and use of skills acquired during training (0.490). The availability of teaching and learning resources were correlated to the clinical teaching and learning aspect scores (0.699), as well as clinical placements (0.530), clinical supervision (0.631), and resources for skills laboratories (0.633). The availability of teaching and learning resources was additionally correlated to graduates' rating of competencies gained during their undergraduate programme (0.555) and use of skills acquired during training (0.552).

The clinical teaching and learning aspect was highly correlated to clinical placements (0.680), clinical supervision (0.703), and resources for skills laboratories (0.695). It was also significantly correlated to resources for skills laboratories (0.695), graduates' rating of competencies gained during their undergraduate programme (0.733) and use of skills acquired during training (0.650). On the other hand, clinical placements were highly correlated to clinical supervision (0.728), availability of resources for skills laboratories (0.627). Clinical placement scores were also correlated to graduates' ratings of competencies gained during their undergraduate programme (0.523) and use of skills acquired during training (0.458). Clinical supervision was also correlated to availability of resources for skills laboratories (0.645), graduates' rating of competencies gained during their undergraduate programme (0.631) and use of skills acquired during training (0.575) while resources for skills laboratories was also correlated to graduates' ratings of competencies gained during their undergraduate programme (0.578) and use of

skills acquired during training (0.426). Lastly, the graduates' rating of competencies gained during their undergraduate programme was correlated to the use of skills acquired during training (0.664) (See Table 4.27).

	Employer competency rating	1	2	3	4	5	6	7	8	9
Facilitation of class session by lecturer 7 (1)	0.081									
Structure and content of programme/ modules (2)	0.019	.654**								
Contact with lecturers (3)	0.074	.494**	.706**							
Resources (4)	0.108	.583**	.729**	.645**						
Clinical teaching and learning (5)	-0.018	.562**	.714**	.587**	.699**					
Clinical placements (6)	0.057	.341**	.615**	.505**	.530**	.680**				
Clinical supervision (7)	-0.120	.519**	.724**	.657**	.631**	.703**	.728**			
Resources for skills laboratory training (8)	0.105	.435**	.508**	.509**	.633**	.695**	.627**	.645**		
Graduate rating of competencies acquired during your undergraduate nursing programme. (9)	-0.021	.481**	.564**	.521**	.555**	.733**	.523**	.631**	.578**	
Use of skills acquired during undergraduate training (10)	-0.113	.475**	.523**	.490**	.552**	.650**	.458**	.575**	.426**	.664**

Table 4.27: Correlation coefficients of employer rating of student competence with graduate ratings of different items and aspects

** Correlation is significant at the 0.01 level (2-tailed).

4.5 SUMMARY

During this phase of the study, it became apparent that the graduates' ratings of their experiences with the different aspects of the programmes and the programme as a whole were mainly good to excellent. Similarly, the ratings of the employers on the graduates' competencies were predominantly competent to proficient. However, areas that need improvement were identified and are explored in more depth in phase 2 of the study because it is important to address even the low scores of graduate incompetence or lack of specific nursing and professional skills. The following chapter discusses the findings of phase 2 of the study in more detail. The graduates were not asked to rate the importance of all the different components of the legacy curriculum and were therefore asked in phase 3 of the study to indicate their preference on the different components. The findings of phase 3 will be discussed in more detail in Chapter 6.

CHAPTER 5

FINDINGS: PHASE 2 - QUALITATIVE

5.1 INTRODUCTION

This chapter outlines the qualitative findings of phase 2 of the study. It addresses objective 1.5.3, which was to explore and describe graduates and employers' views on their responses that were predominantly either positive or negative in objectives 1.5.1 and 1.5.2 and their views regarding specific competencies, which would improve the quality and relevance of the new Bachelor of Nursing programme. An integrated discussion of the findings is presented in Chapter 7.

This phase, relates to dimensions two and three of the adapted four-dimensional curriculum development framework of Steketee, Lee, Moran, and Rogers (2013) as discussed in Chapter 2. Dimension two refers to the knowledge, competencies, capabilities and practices of the graduates, while dimension three refers to the teaching, learning and assessment approaches, as well as practices.

Applicable significant findings of phase 1 informed the development of the semi-structured interview guides for both the graduates and employers (see Appendix 6 and Appendix 7, respectively). Probing was used to gain deeper insight into their experiences with the programme (graduates) and the product of the programme (employers). The themes and categories for both the graduate and employer interviews are presented and are supported by direct quotes from participants. In

most instances the participants' language has not been corrected. Ellipsis was used where sections of quotes were not relevant.

Additional significant findings between demographic groups of graduates were not explored. The purpose was not to compare subgroups of the participants due to the complexity of identifying sufficient participants that fit the specific subgroup within the sample.

Audio recordings was transcribed verbatim. Qualitative data analysis followed an inductive analysis approach combined with deductive methods. The open coding entailed reading the entire data set and aggregating them into a collection of categories or themes. The coding was done manually in Microsoft Word. After developing the initial codes from the transcriptions, the researcher and independent coder met to clarify the context and check for discrepancies in the coding and categories identified. Consensus was reached on the themes and findings.

5.2 FINDINGS FROM GRADUATE SEMI-STRUCTURED INTERVIEWS

The researcher generated 8 themes and 65 categories, of which 15 were recommendations, from the graduate data as presented in Table 5.1.

Table 5.1: Themes and categories from graduate interviews

THEMES	CATEGORIES
5.1.1 (Mostly) positive experiences	5.1.1.1 Theory-practice integration was helpful
	5.1.1.2 Intrapersonal and interpersonal influences

THEMES	CATEGORIES
	5.1.1.3 Interpersonal aspects
	5.1.1.4 Preparedness for a new role
	5.1.1.5 Programme matters
	5.1.1.6 Teaching and assessment
5.1.2 Challenges experienced	5.1.2.1 Being under-prepared
	5.1.2.2 Limited clinical exposure in the 1st year
	5.1.2.3 Failing "so many times'
	5.1.2.4 Ward Dynamics
	5.1.2.5 Programme matters: adaptation in the early years
	5.1.2.6 Learning and assessment
5.1.3 The second year is challenging	5.1.3.1 (Too much) time spent in practice impacts on theoretical outcomes
	5.1.3.2 Second year: General Nursing Science assessment
	5.1.3.3 Language issues
	5.1.3.4 Personal learning preferences
	5.1.3.5 Teaching and learning
	5.1.3.6 Programme matters: later years
	5.1.3.7 Learning and assessment strategies
	5.1.3.8 Personal factors
5.1.4 Potential reasons for (dis)satisfaction ratings with the nursing programme	5.1.4.1 Not the programme per se, but other reasons
	5.1.4.2 Being under pressure
	5.1.4.3 Personal predispositions
	5.1.4.4 Personal resilience
	5.1.4.5 Blaming
	5.1.4.6 In hindsight perceptions change
	5.1.4.7 Practical problematic
	5.1.4.8 Not a (first) career choice
5.1.5 Potential reasons why graduates who completed *cum laude* and *summa cum laude* utilise acquired	5.1.5.1 Confidence
	5.1.5.2 Work ethic
	5.1.5.3 Put in effort
	5.1.5.4 Going deeper
	5.1.5.5 Improved application of skills

THEMES	CATEGORIES
nursing skills more than those who just passed	5.1.5.6 Higher order thinking skills improves application
	5.1.5.7 Greater depth and in-sight/understanding
	5.1.5.8 Motivated by the acknowledgement of hard work
5.1.6 Bachelor of Nursing Programmes preparation of graduates for their transition from university to the world of work	5.1.6.1 Varied views about preparation
	5.1.6.2 Ability to manage conflict
	5.1.6.3 Function independently
	5.1.6.4 Leadership
	5.1.6.5 Adeptness
	5.1.6.6 Keen observation and application
	5.1.6.7 Clinical placement enhanced competence
	5.1.6.8 Skills preparation
5.1.7 Incidents that made community service practitioners feel they lacked competence for the job	5.1.7.1 Feeling competent
	5.1.7.2 Negligence vs competence
	5.1.7.3 Lack of depth in some topics, e.g. TB or skills
	5.1.7.4 Difference between knowing and doing - possibly related to a lack of practice
	5.1.7.5 Realising responsibility for self-directed learning
	5.1.7.6 Being young: undermined and disrespected or not trusted
5.1.8 Recommendations	5.1.8.1 Improve GNS
	5.1.8.2 Relook subjects and placement over year/s
	5.1.8.3 Exposure to more disciplines for shorter times
	5.1.8.4 Clinical learning hours
	5.1.8.5 Self-directed learning skills
	5.1.8.6 Placements/block system
	5.1.8.7 Distributing the workload
	5.1.8.8 Lecturer attributes
	5.1.8.9 Tact and interpersonal skills
	5.1.8.10 Approach to teaching and learning
	5.1.8.11 Group activities
	5.1.8.12 Online access
	5.1.8.13 Financial support

THEMES	CATEGORIES
	5.1.8.14 Importance of consistent and continuous support
	5.1.8.15 More opportunities to take responsibility

5.2.1 **(Mostly) positive experiences**

When asked to elaborate on their positive and negative experiences with the programme, the findings show that the graduates' experiences with the programme were mainly positive. The clinical setting was a highlight for most. Under this theme, the researcher identified six categories as shown in Table 5.1.

5.2.1.1 Theory-practice integration was helpful

Graduates felt that there was a definite integration of theory and practice in the programme. The graduates appreciated the clinical support received from the clinical supervisors and reported that the clinical support works well. One of the graduates stated:

"…what you missed in the class and then you go to the clinical placement and you meet with your clinical supervisor. So they would like elaborate more or teach you more because sometimes …, it is easier to memorise or to keep it in mind something that you do practically if someone teaches you theoretically and you do it at the same time." [G1]

Graduates felt that clinical support in smaller groups in clinical settings works well. An example of this report is from the same graduate who said:

"Because most of us we are shy to speak in class. So when you are in clinical placement, that's why you are making use of… because you are maybe four or five in that hospital. So you have a chance to ask." [G1]

According to the same graduate repeated practical application leads to progressive mastery as can be evidenced by the following report:

"…we're doing it repeatedly… We're given a chance to practice… we had like done it in practice and then also skills laboratory." [G1]

Graduates also verbalised that there is familiarisation through orientation, especially in the skills laboratory and that the skills laboratory is helpful. Some examples stated by graduates were:

"…we didn't get placed like immediately like we first did a few weeks of orientation at skills lab before we actually got placed. So that at least we have somewhere to familiarise ourselves what to expect." [G2]

Another graduate stated:

"…skills lab was also a really good way of practising. … It did just give you a place to … practice like my system when I stepped into an MOU or the high care facilities. I felt like I could do it because I practised everything in that skills lab." [G9]

It is evident that the graduates also experienced the clinical placements as conducive for theory-practice integration as one of the graduates stated:

"I think it is so amazing that you're placed so much and see so many different places." [Referring to a variety of facilities and units within facilities] [G11]

Even though much emphasis was on clinical, graduates also felt that the lecturer forms the backbone of theory acquisition as evidenced by the following quote:

"So, if you don't have that communication with your lecturer you won't do good in clinical as well. Even though your supervisor is there to help you, you still need that backbone theory of the lecturer." [G3]

The graduates expressed that they had competent lecturers (including clinical supervisors), that take a personal interest in the students. One graduate stated:

"We got support throughout from the lecturers and they followed-up well ...really knew us and knew what to expect of us and what our weaknesses were and how to support us." [G12]

Graduates felt that the information learned leads to understanding for skill application and cognitive training, as evidenced by the following two quotes respectively:

"...once you understood there's a principle that you get in your theory half, it makes it easier to follow the practical half." [G12]

And,

"Now when I see a new illness, because of my mind was trained during the four-year course I know how to read up about it and what information is maybe not so, not factual... but like essential." [G9]

5.2.1.2 Intrapersonal and interpersonal influences

Interesting to note is that graduates identified work ethic as another influencer of experience with the programme. The identification of work ethic points to emotional maturity, where the graduates realised that intrinsic motivation does play a role in one's experiences. Graduates implied that if one works hard, it is appreciated by clients and the experience with the programme would be positive, as can be evidenced from the following quotes:

"…if you're hardworking you will make it… I was an eager learner." [G2]

One graduate voiced the personal growth and maturity experienced,

"I changed a lot, I learned a lot and I matured." [G11]

Graduates also indicated that receiving positive feedback from clients in their care contributed to their positive experiences in the programme as stated by one of the graduates:

"…you see like you have done something good and the patient is complimenting…they can tell that you are doing something that is wrong." [G1]

Challenges, experienced in the programme were not always perceived as a negative experience and was reported to have made some graduates stronger in the process as can be seen from the following two quotes:

"…after all that was finished, I think it actually made us more stronger – actually working shifts then tests and class. So that it was a bad thing for me because we went into a difficult one because when I work, I can juggle more because then I'm used to juggle work and my academic and all that stuff." [G4]

And,

"And when I came to community service, I was actually stronger because of those challenges that I experienced during the year." [G6]

Self-motivation of the individual, another characteristic of emotional maturity, was the last intrapersonal habit that was found, for example:

"...if you put yourself [push] *and you do accordingly, as it is expected of you, you can make it."* [G6]

Interpersonal aspects of the programme also played a role in whether the graduates experienced the programme as positive or not. Graduates regarded clients taking a personal interest in them as a positive experience, for example, one graduate said:

"...want to know details about where you are from? What kind of parents you have? And then who is your tutor?" [G1]

Another interpersonal aspect that played a role was that of socialising, as evidenced by the following statement:

"You get to meet people. You get to socialise. You get to work and learn." [G5]

5.2.1.3 Preparedness for a new role

Graduates indicated that they felt prepared but required supervision during the transition from university to the world of work, as captured by one graduate as,

"...we were prepared, but we also needed supervision." [G1]

5.2.1.4 Programme matters

Increased specialisation in later years with passionate lecturers was another positive experience of graduates. The following statement of a graduate explains the experience mentioned above:

"I think the last few years it was good because I think it was because it is more specialised and the people love what they do and they come in and they teach you like what you're supposed to know." [G2]

They also voiced satisfaction for the most with the lecturing staff and sufficient contact with lecturing staff, as evidenced by the following statement:

"...all the lecturers, from level one to fourth year, they explained the stuff in a way that you will understand it." [G7]

5.2.1.5 Teaching and assessment

As seen in chapter four, when graduates were asked during the first phase of the study, as to which discipline they enjoyed the most in the programme, 37% of them indicated Midwifery, followed by 32% liking CHN, as the two most enjoyed disciplines. The finding of phase 1 was confirmed in phase 2, where graduates stated the following:

"...community and that was in my third year and I found that module very interesting because I actually did better with my grades and stuff, I must say that." [G6]

And,

"...my favourite module is definitely midwifery." [G9]

Graduates indicated that the information received was adequate and precise. One of the graduates stated:

"...information that we got during our lectures and clinical skills were sufficient. It could help me in my comserve [community service] *year."* [G7]

Another statement in support of this category is the following:

"...whatever section we would do it was always clearly listed these are your outcomes; this is what you should know; this is what you should be able to do. I think everything was very clear in the coursework and from the lecturers' themselves" [G12]

They expressed adequate access and time with lectures, as well as adequate clinical supervision from the first to the third year of their programme, evidenced by the following:

"...all four years I think it was good because even in class you are given enough time to ask questions. If you didn't get enough time, you will get extra time with the lecturer if you make an appointment. They are available... But fourth year I don't know if they felt like now I'm responsible enough to be on my own or what but they seldom came in fourth year, but they were there through all the other years." [G8]

The statement above ties in with the next statement by a particular graduate that speaks to inadequate access to lecturers and clinical supervisors leads to feelings of abandonment and stress. She recounted her experience as follows:

"I had problems with my clinical facilitators. They weren't very reliable and the one clinical facilitator she actually didn't pitch on the few days that we had meetings to do the procedures, which was quite stressful. And I didn't get that

mentorship I heard …; the other students were getting… I kind of felt that I was having to figure things out on my own. I felt quite lost and not looked after." [G9]

This graduate's experience was thus negative in terms of the clinical supervision, which leads the way for the next theme identified as challenges experienced.

5.2.2 **Challenges experienced**

As previously mentioned, graduates elaborated on both positive and negative experiences. Table 5.1 depicts the six categories identified under the theme 'negative experiences or challenges experienced'.

5.2.2.1 Being under prepared

Graduates indicated that when they initially started in the programme, they felt underprepared, once they realised what the programme entails. An example would be one graduate stating:

"I was fully prepared for what I studied. So it was a big adjustment… really a mindset change." [G11]

The graduates raised emotional adjustment and adjusting to studies as challenges experienced, as can be summarised by the following two quotes from the above graduate:

"The type of work took a lot of emotional investment. You can't just come and nurse if you don't really care about patients. So I had to learn how to do that too" [G11]

And

"I studied straight from school. So I had a little thing that it was just basically just going to school. There was no working involved." [G11]

5.2.2.2 Limited clinical exposure in the 1st year

There was limited clinical exposure in the first year, for one graduate:

"…first year, I think my first year we didn't get exposed to much in the hospital. So it was once a week." [G17]

5.2.2.3 Failing "so many times"

Failing "so many times' and having to repeat was 'hell' for some graduates but others saw it as an opportunity to understand better. One graduate stated:

"I failed so many times. I also repeated second year and it was hell." [G5]

While another graduate voiced the following:

"I had to do my second year over. But for me, it wasn't really negative because what I did again I could actually understand better." [G6]

5.2.2.4 Ward dynamics

Another challenge experienced by students were that of ward dynamics and how it impacts on their experience with the programme. They stated that they were seen as messengers or part of the workforce, as evidenced by the following:

"…when we are in hospital we are not regarded as students… you are not regarded as a student but an employee." [G1]

The same graduate raised the fact that they experience an inability to fulfil practice outcomes, as voiced by the graduate:

"…remember in my second year, there was actually a Sister in one of the hospitals where they were refusing to give us a chance to give medication." [G1]

Graduates also felt underprepared in certain areas, which they indicated leads to 'shock'. One graduate stated the following:

"I don't think that when we got into labour wards, we were enough exposed to what's going to happen. So it was a shock – everything was a shock." [G4]

5.2.2.5 Programme matters: adaptation in the early years

Adapting in the first two years to increased expectations (towards independent learning) resulted in fear and feeling overwhelmed, as expressed by graduates:

"…it wasn't really great in the first two years …In the first two years it was a bit you're getting used to the people, the supervisors, the lecturers and you're getting to know nursing." [G2]

And,

"Because the Sisters in the ward expect more from you and to cope…a lot of people were scared because now it's like not first year anymore. It is now second year. So it is more you have to do. It is needle-prick injuries and all that exposure to all the danger and stuff." [G4]

5.2.2.6 Learning and assessment

Graduates experienced greater emphasis on the theoretical competence within the programme, as encapsulated by the following statement:

"...we were so much .... in the theory part." [G10]

They also voiced that instruction, in terms of learning material, was insufficient:

"It didn't have all of the information in. So when we would look at, if we were covering a certain illness and then we would look into the textbook – it didn't really correlate." [G9]

5.2.3 **The second year is challenging**

Phase 1 data indicate that the graduates found the second year to be challenging. The major subject offered in this year level is General Nursing Science (GNS). Therefore, this finding was explored further in phase 2 of this study. Various categories that arose from the exploration of this theme is showed in Table 5.1.

5.2.3.1 (Too much) time spent in practice impacts on theoretical outcomes

Graduates believed that (too much) time spent in practice impacts theoretical outcomes and reduce contact time with the lecturers and preparation time; therefore, it became a juggling act for students. The following three quotes from graduates serve as evidence of the opinion raised:

"…in second year, when we had to be at the clinical placement more often and then be in the classes…And you don't have enough time to study…getting in contact with the lecturer." [G1]

"…like our days were split up… by the time you get to your classes you're actually exhausted because maybe the day before you worked seven till seven… you don't sort of prepare yourself like do the reading work that they give you to do." [G2]

And,

"…it was just a challenge to juggle theoretical work together with practice…I didn't perform to the best of my abilities because I couldn't juggle both of them at the same time." [G8]

Linking with the workload, graduates also felt the theoretical and/or practical workload and level of difficulty hampers the process of integration and 'getting a feel' for the work also ultimately led to exhaustion, as evidenced by the following:

"…then the amount increases, the workload increases and that's probably what adds to not doing well…theory part you don't do that much in your first year, but when it comes to your second year, there's this chunk of information that you now have to take in. And it is not always... like it is a lot of information, but it is not always stuff you can grasp quickly." [G2]

And,

"Second year, yo, there's a lot of work in second year you're always exhausted." [G5]

Also, graduates indicated that an increase in (theory) difficulty causes pressure on students. One example would be what a graduate stated as:

"…a lot of students actually didn't know how to cope with the work…Like it was a lot of self-study. If you weren't doing the work yourself, you were not going to pass." [G12]

One graduate indicated that personal circumstances might be contributing factors to second year being perceived as challenging, by stating the following:

"I was going through a rough patch." [G3]

5.2.3.2 2nd year: general nursing science assessment

Graduates indicated that there were problems with the assessments. They specifically raised issues with mark allocation, which were not specific to nursing modules within the second year, but the modules taught by other departments as well.

"…here like the marking you had to give like the rationale for our answers. You have to give more facts and then the marking… remember when you were... 0,5 per fact. So we had to give a lot of facts." [G1]

And,

"Human Biology. I don't know if it is the negative marking because that time it was" [G7]

Another challenge experienced with the second-year assessments were those of test questions, whereby graduates indicated that test questions possibly required higher order thinking.

"…when it comes to the test you have to write the test the questions seem different…we reviewed the question paper we realised that a lot of questions that

were there is something that we knew but then it is all about the wording of the question or the questioning of it ... For instance, ...to find that I'm not answering the question exactly what is being asked or whether or not I didn't understand what actually they want in the question ... Maybe it was because we didn't read correctly or we didn't learn to understand the question correctly... some people were English-speaking, but they still failed with the General Nursing Science. It wouldn't be the language." [G8]

And,

"...those tests and exams it was just out of the normal... the assessments didn't really line up with what happened in the tests and the exams." [G11]

In linking with the challenge mentioned above, graduates identified that the students possibly lacked preparation in answering questions as evidenced by the following two quotes:

"I think they lack that part of telling us exactly if a question like this arise, this is how you tackle the question." [G8]

And,

"...and the preparation." [G11]

5.2.3.3 Language issues

Graduates also raised language issues in the second year of the programme, which appears to be specific to second language issues. According to graduates, being a second language English student leads to loss of information during learning. Two graduates stated their language as follow:

"English is not my first language and I have to adapt and some of the terms were just too heavy for me. I will skip something, but it will be important for me because I need to know the human body. I need to know the anatomy and the physiology." [G7]

And,

"... I would often not really be able to get as much of it as they got because I wasn't able to speak their language." [G9]

5.2.3.4 Personal learning preferences

A graduate also raised personal learning preferences as another challenge of the second year, implicating with the following quote that the content of the second year is experienced as theoretically dense:

"I'm a more practical person because I learn from seeing and doing more than from learning it." [G15]

5.2.3.5 Teaching and learning

In terms of teaching and learning, specifically, the graduates raised lecturers and their expectations as challenging to the second year. Once again, this is not specific to the nursing modules, but across all modules, specifically pharmacology. The following four quotes serve as evidence to the challenge experienced in terms of the pharmacology module:

"I couldn't understand the lecturer. So it was like a sort of language barrier because we couldn't understand him. And I didn't show interest and eventually, I didn't even go to class anymore." [G2]

"Pharmacology for me, it was a challenge because the lecturer we had couldn't understand. There was a language barrier." [G3]

"...Pharmacology. it was too much or maybe the way that the lecturer gave the lectures was maybe there was also a problem." [G7]

"...the Pharmacology lecturer was terrible. You couldn't understand what he was ... you couldn't understand him." [G9]

In addition to the lecturers and their expectations, graduates also included the clinical supervisors under teaching and learning. Graduates indicated the different teaching styles of supervisors and how this possibly influence their assessments as evidenced by the following:

"...we had a lot of supervisors teaching us differently and when it comes to OSCE, they mark you down because maybe you were taught a specific way and that's not the way they wanted it to be...everyone teaches differently" [G2]

Linking with the different teaching styles of the clinical supervisors, graduates identified the teaching methods as another teaching and learning challenge. The School of Nursing makes use of case-based methodology and thereby rely heavily on group assignments and presentations. The graduates, however, pointed out that other programme requirements often hamper the logistics in terms of group work, as one graduate explained:

"...you're not only dealing with tests and HUB – you have group assignments. You have things that need to go out and work with other people and then ...you can't even find your group members as well because you are placed differently ... The other group is working on Wednesday. And you, the person who is supposed to ... with is in the clinical placement and you are there. To me it was chaotic." [G8]

Graduates also indicated that they felt there were not adequate supplementary material or resources available. The student population of this university is often from a financially disadvantaged background and therefore finds it difficult to buy the prescribed textbooks required. The following two quotes refer to the availability of supplementary resources and the lack of prescribed textbooks:

"...we didn't get a lot of PowerPoint. So if you weren't in class or you wanted to refer back to something you have heard in class, you couldn't." [G9]

And,

"...a lot of people didn't have access to the textbooks or lot of people struggled to buy textbooks and maybe they struggled to study like that and so on." [G12]

Platforms to share information, was another challenge. Here graduates were referring to the online platform, iKamva, used by the university for communication and sharing of information regarding all modules within the programme. It appears that some lecturers used this online platform more efficiently than others as one graduate stated,

"...don't think there was that great communication or like a platform between the lecturers and the students to like share information. It happened with some of the lectures, but not all of them." [G9]

The fact that this online platform is used from the first year of the programme, it appears that students then assume that all lecturers of all the modules would use the platform in the same way in terms of information sharing and communication as evidenced by the following:

"I think the notes could have been better because I remember being in third year and asking everyone what are the notes, where's the notes, where can I find them. And everyone was just like you had to take down what was said in class and we couldn't download." [G11]

Issues with placements were raised as another challenge. Graduates indicated that the theory and practice integration was difficult as they were not always exposed to both the theory and the practice at the same time. One graduate stated the following:

"...sometimes like your placements are a bit weird ... Like the theory part of it, it does help you, but they're not supposed to teach you everything, but obviously I know they can't teach you everything... So the theory is there and the practical is there but sometimes the exposure we have to do it before the time" [G2]

Another graduate referred to the clinical placements not being in line with the number of clinical skills, assessments and other programme requirements, for example, Midwifery requiring 1000 clinical hours according to the South African Nursing Council (SANC) regulations, of the old curriculum, in comparison with the 600 and 500 clinical hours of Psychiatric and Community Nursing Science respectively,

"I didn't get the one-year Psych. I got six months maternity. I would have had more maternity than Psych or at least one year of maternity because that's what a lot of people struggle. We had too little hours and too little skills and too little testing on maternity. Because I didn't struggle in my community, but there's a lot of... I knew it practically, but because what can you do in six months." [G4]

Other specific subjects mentioned by numerous graduates that were perceived as challenging was that of Human Biology (Hub) and Pharmacology, as well as General Nursing Science:

"...the combination of Hub and Pharmacology together made it tough. ...Hub it was fine." [G2]

And,

"GNS you have to sit down and study and try to get to know your notes. It wasn't easy." [G5]

There is perceived fragmentation between theory and clinical aspects of the programme, as stated by one graduate:

"...what we do at the hospital did not always link with what we are studying at the moment…the linkage. The things don't link together. It is not like Midwifery." [G15]

In addition, the graduates indicated that clinical teaching and learning focuses mainly on assessment as evidenced by the following statement:

"The clinical supervisors, they're main focus was on the procedure that was to be done in the clinical placement; not with the other teachings like signs and symptoms and the management." [G1]

The School of Nursing makes use of skills laboratories (lab) to complement the clinical exposure of students. However, the skills lab attendance and assistance are not favoured by some, according to graduates who stated the following:

"It is just that we did not like attend to it." [G1]

And,

"...they needed more time in the skills lab. You know people would always leave the time in the skills lab right till the end." [G12]

5.2.3.6 Programme matters: later years

According to graduates, instruction becomes more self-directed in the latter years of the programme, requiring adaptation from students, as one graduate pointed out,

"Difference in the lecturer's teaching style like from first year to second year, so they teach differently. Where in first year they kind of make it a bit more comfortable for you and it is a bit easy for you to understand." [G2]

5.2.3.7 Learning and assessment strategies

Students also experience a difficult transition with online designs and platforms, specifically in terms of learning and assessment strategies:

"There's like a shift of lecturers and then they try to adapt the curriculum, the syllabus – not maybe the curriculum but the way they run the programme…So like sometimes we have to do things electronically and then it is not set up for us and then everything becomes delayed and they want to mark us down. But we don't have access to do things electronically. And like eventually we started improving" [G2]

Graduates also indicated that the clinical summative assessment, in the form of an Objective Structured Clinical Examination (OSCE), used by the School of Nursing as another challenge for the second year. It appears that the anxiousness that comes with this type of examination is the challenge and not the actual examination as stated by one graduate as:

"OSCE, there's a lot of nervousness… nerve-wracking." [G7]

Under the category of learning strategies, group work again surfaced as one of the challenges in the second year as evidenced by the following two statements:

"…a lot of our stuff was group work. And I felt that the group work wasn't sometimes that effective and well-facilitated and when people would present their case study in front of the lecturer, cultural barriers and working in groups was sometimes quite difficult and that's where most of the learning took place." [G9]

And,

"… if you say that group is going to present next week then I'm definitely going to prepare anything. So I think the best part is you can just say everyone should prepare and you just pick randomly." [G17]

One graduate also raised the prescribed textbooks as challenging,

"So the second year textbooks weren't great. I don't think it was outdated. It just didn't have all of the information that we need, that we required. But I think that like the theory – it was good. It taught you the basic principles of General Nursing that you needed to know to be able to function in the facilities. I just feel that it wasn't always conveyed well." [G9]

5.2.3.8 Personal factors

Graduates also identified personal factors that contributed to the challenging experience of the second year, for example, graduates indicating that nursing not being the first choice of career for some students, as evidenced by the following:

"...didn't do well in General Nursing Science because not a lot of them actually chose nursing as their first choice." [G2];

"...if you don't like the programme in the first place, you will have negative views." [G6]

"Some of them just come because they have to be here. The family expects them to go to university. So I don't think some of them really come with the intention that I need to be fully involved." [G7]

And,

"...they're not quite sure of what they want. Because if you do something that you're not quite sure of what you want, then you're not going to be happy." [G17]

Another personal factor that could play a role in the challenges experienced is staying off-campus, according to graduates. Graduates indicated that transport reduces the time available for studies, as one graduate expressed:

"I was off campus and you have to struggle with the transport. By the time you get home, you are tired. You can't even read. You cannot do anything." [G1]

The same graduate stated that students needed time for socialising, and was therefore not utilising all available resources provided by the School of Nursing,

"There were resources to practice. It is just that we did not like attend to it… Sometimes we felt like we needed a break just to sit with friends. We needed a break to just to sit with friends; not because there were not resources." [G1]

Time management was another personal factor that was raised often by graduates as,

"…maybe not being able to prioritising your time right that's where probably a lot of us did bad."; [G2]

"Maybe it was I who couldn't; I don't know, put my things... to get my things together in time." [G5]

And,

"…time-management actually was bad, for me it was bad." [G6]

Some of the graduates identified that students do not feel free to ask questions, which can be viewed as another personal factor, ultimately influencing the

successful completion of the programme. One graduate stated the following as evidence to those mentioned above:

"We don't really ask. Although there is some... but some of us don't really want to ask questions. So you will rather go on… your own." [G6]

5.2.4 **Potential reasons for (dis) satisfaction ratings with the nursing programme**

In phase 1 of the study, students were asked to rate their happiness with the legacy programme and only 3% of the graduates indicated that they were unhappy being students of the legacy Bachelor of Nursing programme in comparison to 67% that indicated that they were happy to very happy as students of this programme. Phase 2 of the study explored whether graduates agreed with this finding and to elaborate as to why they agree or disagree. The majority of participants interviewed during phase 2 agreed with the finding of phase 1, stating various reasons as will be discussed below. One of those that agreed to the finding being a true reflection stated the following:

"…it was fifty/fifty you have your good days in hospital when you think okay, it is worth going through all the bad...the good outweighs the bad." [G3]

Majority participants tended to focus on the 3% that was dissatisfied with the programme when elaborating on their opinions.

5.2.4.1 Not the programme per se, but other reasons

Some of the graduates indicated that the unhappiness experienced by some was not the programme per se, but other reasons, as evidenced by the following statement:

"..., it is because of this bursary, it's what-what, it's what-what, but at the end of the day some people end up loving it." [G17]

5.2.4.2 Being under pressure

Other participants stated that graduates are under pressure, and therefore might feel unhappy with the programme,

"...we weren't unhappy. We were just under pressure." [G4]

5.2.4.3 Personal predispositions

Some participants speculated that unhappiness with the programme had to do with students' predispositions, as evidenced by the following:

"I think they were just unhappy with the choice they've made." [G15]

5.2.4.4 Personal resilience

Personal resilience was also raised as another factor of the experience with the programme, where one participant stated,

"...different people have different resilience tolerance. Like they can only take so much. And so it would be understandable that they're not performing well. Because maybe they're feeling down." [G9]

5.2.4.5 Blaming

Some participants raised "blaming" as an influencer of the experience of the programme. This was evidenced by one of the graduates stating:

"…some of the students would blame the lecturer. Okay, I failed this [these] *tests. It is the lecturer's fault because she didn't explain or he didn't explain what-what… You need to go home and sit with your books and read for you to understand better… It depends on you..."* [G7]

Linking with this is the statement made by one of the participants:

"… when I was a student it was like sixty-seven per cent will say they're not happy and three per cent will maybe say that they would be happy." [G8]

5.2.4.6 In hindsight perceptions change

Participants also indicated that in hindsight perceptions change, which could account for the high rate of participants indicating that they were satisfied with the programme in phase 1. The following quotes were raised as evidence:

"You're only happy after you finished the programme when you look back and say, really, it wasn't as bad as I thought it was." [G8]

And

"when you look back on it you realise that it is what you make of it….Like in hindsight, you can see why things are a certain way." [G9]

5.2.4.7 Practical was problematic

One of the participants indicated that the clinical component of the programme was problematic and could also contribute to how the programme was experienced:

"...with the practicals, it was a bit of a problem." [G10]

5.2.4.8 Not a (first) career choice

Linking with personal predispositions, as stated above under point 5.2.4.3, some participants also raised the fact that nursing might not have been a (first) career choice for graduates who were dissatisfied with the programme, reflected by the following two quotes:

"...maybe nursing just wasn't for them." [G11]

And,

"...they're not quite sure of what they want. Because if you do something that you're not quite sure of what you want, then you're not going to be happy." [G15]

5.2.5 **Potential reasons why graduates who completed cum laude and summa cum laude utilise acquired nursing skills more than those who just passed**

As indicated in Chapter 4, graduates rated their use of skills acquired during their undergraduate training. When this was stratified against the level of pass the graduate achieved, there was a statistical difference of p=0.048. For this reason, this relationship was further explored during this phase of the study. Eight categories emerged under this theme, as outlined in Table 5.1.

5.2.5.1 Confidence

Graduates that were interviewed during phase 2 of the study indicated that they think that graduates, who passed cum laude and summa cum laude, might have higher confidence, as evidenced by the following quote:

"I'm not sure. Probably because of confidence. Maybe they've matured better in that specific skills than their counterparts." [G3]

5.2.5.2 Work ethic

Some graduates speculated higher work ethic in graduates that passed with cum laude and summa cum laude. An example of a response offered was:

"Maybe we [who just passed] *were just lazy. I don't know."* [G5]

5.2.5.3 Put effort into it

Another explanation offered was that of putting in the effort, as evidenced by the following response:

"…think they really put effort into it… they were really active in the programme… You have to set yourself up long before it. I want to pass with a summa cum laude. I want to pass with a cum laude. So then you will work towards that." [G6]

5.2.5.4 Going deeper

Some graduates seem to think that those passing with cum laude and summa cum laude intentionally set out studying content for long term use as stated by the following two graduates:

"...some of that students just study to pass. They don't study with the intention that I'm going to go deeper in this career. Maybe they just studied I need to know this specific thing. So I am just going to study with that specific thing. They didn't study long term." [G7]

And,

"...they drove themselves. They were motivated. They set their sight out to do the best they can do." [G15]

5.2.5.5 Improved application of skills

Graduates also indicated that those students passing cum lade and summa cum laude had improved application of skills because they put so much effort into learning the skills and content, as evidenced by the following:

"...worked hard as students and then they didn't just work hard by passing. They actually worked hard in every way. So that if they did that, they are more likely to utilise those skills in their comserve [community service]*."* [G8]

And,

"...they had more exposure as students and maybe they felt more comfortable in different areas." [G12]

5.2.5.6 Higher order thinking skills improves application

Graduates were also of the opinion that higher order thinking skills improved the application, as stated by one graduate:

"…because your level of thinking and your level of doing things is a little bit upper compared to the one that's just passed." [G8]

5.2.5.7 Greater depth and insight/in understanding

Graduates also indicated that those that passed cum laude and summa cum laude had greater depth and insight in understanding the content and skills as evidenced by the following:

"…aware like they didn't have that depth, that insight, depth of understanding – that's what I'm trying to say as somebody who passed summa cum laude or cum laude." [G9]

5.2.5.8 Motivated by the acknowledgement of their hard work

The last category that emerged under this theme was that the cum laude and summa cum laude graduates were motivated by the acknowledgement of their hard work. It might serve as intrinsic motivation as one graduate stated:

"…they're acknowledge for it and it just makes them want to continue to do the right thing or do what they … it is like motivation I think." [G11]

5.2.6 **Ways in which the bachelor of nursing programme prepares students for their transition from university to the world of work**

Graduates were asked in which way the B Nursing programme prepared them for their initial transition from university to the world of work and was prompted to give examples. Table 5.1 displays eight categories that arose from this theme.

5.2.6.1 Varied views about preparation

When asked this question, some graduates indicated that the B Nursing programme only partially prepared them for the transition to the world of work, as one graduate stated:

"So it prepared me for like okay, they're probably going to do this. But when it comes to theatre there's a lot... I wasn't prepare for." [G2]

In comparison, more of the graduates that were interviewed in phase 2 of this study indicated that the B Nursing programme prepared them well for the transition to the world of work as evidenced by the following statements:

"So my four years prepared me for everything for my comserve [community service]. *But the first day of comserve* [community service] *like my whole first year, then I understood for the first time what was going on for the four years."* [G4];

"Very positively..." [G7]

And,

"Whatever I am doing, I know that this one is not doing the correct stuff. So I'm not worried about anything." [G17]

While some graduates indicated that they felt partially to well prepared for the transition to the world of work, some graduates felt that the B Nursing programme did not prepare them for the actual transition, as stated by one participant:

"They need to prepare them for comserve [community service]*."* [G4]

5.2.6.2 Ability to manage conflict

Some graduates indicated that the programme, more especially the clinical placement, equipped them with the ability to manage conflict. One graduate reflected on a conflict incident with a staff nurse as a student. He felt that by having that experience, it gave him the ability to handle conflict later in the world of work:

"And I felt really, how can I say, the environment that we were in – unable to speak to her because of what she said and her attitude. Because she's still carry on while I forgot about it. And then I found a way to escape that day

I think that actually made me stronger. So I was able to handle it in my community service." [G6]

5.2.6.3 Function independently

Graduates indicated that the programme prepared them to function independently, as evidenced by the following:

"I can function on my own… I could interpret or the skills and the knowledge …I could combine together in order to do my work." [G7]

And,

"So it taught you to be independent, to plan for yourself, to structure your term – all those things. Which is important once you start working." [G12]

5.2.6.4 Leadership

Leadership was one of the attributes identified by graduates as to how the programme prepared them for the world of work, as evidenced by the following:

"Like being able to lead..." [G17]

5.2.6.5 Adeptness

Another attribute identified by the graduates was that of adeptness, gained mainly from the clinical placements as one graduate stated:

"So by the time I got placed at the ward that I worked, I was used to being in a new environment and learning new routines and adapting to that change quickly." [G9]

5.2.6.6 Keen observation and application

Graduates also indicated keen observation and application as skills obtained from the programme, as evidenced by the following:

"I definitely have learnt how to observe something and then being able to do it the next time." [G9]

5.2.6.7 Clinical placement enhanced competence

Graduates indicated that clinical placement enhanced their competence; however, not always their confidence, as evidenced by the following statements:

"…clinical placements that we're working in, they were preparing us enough to go to the place of work because the programme actually emphasised the responsibilities of me being a professional nurse." [G8]

"…rotating from ward to ward, from hospital to hospital – that is the most, I don't know how to say this, but that prepared me the most. Because you just get comfortable in a workplace and then you're shifted and that's very hard. …So you kind of get used to it and you kind of just give it your best. So I think that was one

of the biggest things that got me prepared for going from student straight into comserve [community service] *as a Sister."* [G15]

And,

"...all the skills that we were taught, theory that I learnt, and the practical that we also got taught, all of that stuff played a very big role in being a competent comserve [community service practitioner] *or working-class nurse. ...You can't really stage emergencies. You can't stage people ...you have to be there, it all comes with experience."* [G11]

5.2.6.8 Skills preparation

Graduates indicated that they gained interpersonal skills from the programme, as one graduate stated:

"Professional practice definitely taught me how to talk with difficult patients and difficult people and family members." [G9]

Another skill identified by graduates as part of the programme experience was networking skills, as evidenced by the following:

"...you realise that you need to make connections so that you can help yourself to find other work." [G9]

5.2.7 **Incidents since employment as a community service practitioner which made them feel that they lacked the necessary competence for the job**

Under this theme, six categories emerged as shown in Table 5.1. Most graduates indicated that they did not feel that they lacked the necessary competence even though they experienced minor incidents since their employment as CSPs. Two graduates responded as follow:

"No-one started out as an expert. You just have to find out the things on your own. So I don't feel other than that I lacked certain skills. So I think I do pretty well." [G2]

And,

"I don't have any. I can't mention any incidents. The facility I worked at last year, I did fairly good. I was competent in everything I did there besides for one duty that they expected of a comserve [community service practitioner]. *I think they wanted me to be shift leader of the entire hospital… the manager at the time, it's like she doesn't understand why a comserve* [community service practitioner] *can't do the job of someone who is doing it for years. It's like day one you need to start doing it and you need to know how to do it on day one."* [G3]

5.2.7.1 Feeling competent

The first category that emerged as indicated above is competence. Graduates generally felt competent as can be evidenced by the following:

"I can't think of anything." [G7]

And,

"...everything that I've learnt from the programme I also applied in the clinical setting. After being a comserve [community service practitioner] *I could see that this is what I've been taught and this is how I should apply this."* [G8]

5.2.7.2 Negligence vs Competence

While one of the graduates did recall an incident, she did indicate that she would not say that she lacked competence, but it could have been more negligence from her side:

"So I think that's the only incident that I will never forget in my life like a human almost died because of my negligence." [G5]

5.2.7.3 Lack of depth in some topics, e.g. tb or skills

Graduates did indicate that even though they did not feel that they lacked competence, the programme did lack depth in some topics, e.g. TB or skills. These were sometimes small things and from the responses, it also became clear that it was mostly skills that need to be practised to be mastered, as can be seen from the below responses:

"...with the T.B. knowledge and stuff. What we did. We did the book and the reading and did presentations and stuff. But at the facility, we were only based to do like the sputums and did the X-ray forms. They didn't really allow us to do anything else like handing out medication and stuff. So when I came to my community service here, I only know about the sputums and stuff... when it comes to the part of medication, it was something else because it was new to us." [G6];

"...as I told you, only if they told me these [putting up a drip for an infant] *are the things I need to do; I might not have been able to master the skills."* [G8]

And,

"Maybe with suturing. Maybe I didn't do enough suturing and so on… I really did not feel confident with that. I could not do it the way it was supposed to be done. You know there's lots of small things that are left out of the programme like wearing certain gloves and things like that." [G12]

Another graduate indicated,

"I don't delegate well. And that is also something that really can't be taught; something that we need…I can't tell someone older than me...I need this and this done. And I mean I'm working in admissions. I'm running the show there by myself at night. So I kind of need that." [G15]

5.2.7.4 The difference between knowing and doing possibly related to a lack of practice

One graduate raised the difference between knowing and doing as possibly related to a lack of practice:

"And then it's one thing to actually know how to actually put it in. It's another thing to know what are the things that are required to put in a drip…I didn't have the time to put in a drip when I was a student... I think embarrassing or the bad part of it, it was something that must be done immediately as in now. And then one Sister was like…and I was a little bit clueless of what must I bring." [G8]

5.2.7.5 Realising responsibility for self-directed learning

Realising responsibility for self-directed learning was another category that emerged under this team, as stated by one graduate:

"You can't expect to be spoon-fed…I said it is also up to you. They can give you all the textbooks, but if you don't read them and make an effort to some of them that's your own problem" [G9]

5.2.7.6 Being young: undermined and disrespected or not trusted

Graduates also felt that being young, they were undermined, disrespected or not trusted by patients and staff. Below are examples of two graduates' responses:

"...patients and patients' relatives can be very disrespectful to you. Besides knowing that you're a comserve [community service practitioner]*, if they just see that you're young, it doesn't matter if your qualified, they always have a way of undermining you. Or condescending you because they think that you are too young to be doing the job that you are doing. they already had their prejudices towards me."* [G11]

And,

"... in terms of the skills settings, students should have them find competent, then they need to be trusted." [G12]

5.2.8 **Recommendations**

Graduates were asked for recommendations to improve the new nursing programme. Under this theme, there were 15 categories found as were outlined in Table 5.1.

5.2.8.1 Improve GNS

Most of the graduates interviewed did indicate that the General Nursing Science modules could be improved, as evidenced by the following quote:

"I would say that you can improve on the General [Nursing] *Science."* [G17]

5.2.8.2 Relook subjects and placement over year/s

Graduates proposed that subjects be relooked at in terms of the offering over the year(s). Below are some proposals from graduates:

"So maybe they could teach a little bit of General Nursing Science in the first year and not just Fundamentals." [G2]

And,

"I would have liked more clinical experience in my first and second year, second year should not have that many big subjects in. It's quite a strain. I think if some of it can just be shifted to first year because first year is like really easy against second year." [G15]

Another graduate proposed the following:

"So I think if maybe General you can take it maybe from second year until fourth year. I don't know. So that we can be updated throughout the whole programme.

Because if you can look, if someone is doing third year, he is not exposed to any General. Fourth-year? We were exposed for one day." [G17]

5.2.8.3 Exposure to more disciplines for shorter times

Many graduates indicated that exposure to more disciplines for shorter times is needed in the clinical placement, as some graduates did not get placed in all the different wards and therefore did not have any exposure to those specific clinical skills needed. Below are some of the recommendations made by graduates:

"...because we get placed in one ward for seven weeks so you don't really get exposure to a lot of wards. So I didn't even cover Gynae or ENT or Oncology. I just did Paeds and Medical and Surgical with some Orthopaedic and that was it." [G2]

And,

"Maybe I feel they should make going to theatre compulsory at least maybe for a week or two or something depending on when in your week in the year you're going so that you have at least exposure." [G2]

Another graduate recommended the following, based on her personal experience:

"...rotate in all major fields of nursing. Unfortunately, I never had, in my four years, of working in theatre. And I feel like it could have helped me somehow. But I don't have any theatre experience." [G11]

This recommendation is elaborated on by the graduate as:

"...working in trauma settings." [G11]

5.2.8.4 Clinical learning hours

Graduates also made recommendations in terms of the clinical learning hours, as evidenced by one graduate's statement:

"I think it is the clinical hours and the workload, especially like in second year. So there can be maybe a time when you have to work on a Saturday or so. I don't think the night shift will be possible, but at least it is on a Saturday…Maybe if we can work like over a period of a weekend because we didn't work weekends during second year. So maybe if we can take one day off where we're supposed to work during the week, we can maybe work during weekends …" [G6]

5.2.8.5 Self-directed learning skills

Graduates also recommended, as evidenced below, that specific skills be offered throughout the programme and not be listed as self-directed learning skills, as it is in the legacy programme.

"But the skills, as I've also mentioned like the IV insertion, the procedure should be available throughout the years; from second up until wherever and even the insertion of catheters and stuff because that is what we have to deal with at the end of our fourth year in our comserve [community service] *year."* [G6]

5.2.8.6 Placements/block system

Graduates also recommended a block system be put in place for clinical placements, in addition to the recommendation of spreading clinical hours above, as evidenced below:

"…you do Midwifery for two months and then place them for two months. So they can get experience in Midwifery. And then you are done in that. And when you want them to learn this, you placed two months of studying for that and then two months of clinical." [G8]

And,

"…Block periods." [G9]

Confirmed by another:

"…block system." [G10]

5.2.8.7 Distributing the workload

Graduates recommended the redistributed workload be spread across years, in an attempt to alleviate the workload in some of the years. Below are some of the recommendations from graduates:

"…moving some of the modules from third year maybe to fourth year." [G8]

The graduate elaborated as follows:

"In first year, the workload is not that much. So maybe they can continue doing whatever they are doing – clinical placement as well as theory in first year. Yo, but second year and third year, it was a little bit hectic. And fourth year was also better. You can also do the same thing." [G8]

Another graduate looked at the pairing of modules in terms of the content of the modules:

"Professional Practice …if we did it with research in fourth year… but that unit management thing could go well with some of the modules in fourth year especially

professionalism. Psychology 111 and Psychology ... if they can just shift that to fourth year because we're doing Psych as well" [G8]

5.2.8.8 Lecturer attributes

Graduates also recommended that lecturer attributes be considered for the new programme, as one graduate stated:

"...lecturers are more energetic and easy to relate to. I understand that nursing is a professional field and your lecturers need to have that role model, but they also need to be relatable." [G9]

5.2.8.9 Tact and interpersonal skills

Graduates also recommended tact and interpersonal skills of lecturers be considered as evidenced by the following:

"Motivation can be a little bit better. Not tell us we are going to fail. Tell us we need to do better." [G15]

5.2.8.10 Approach to teaching and learning

Another recommendation for lecturers from the graduates was their approach to teaching and learning. One graduate voiced it as follow:

"We want to have fun in class. We don't always want to be more prim and proper. We can do that at work." [G9]

5.2.8.11 Group activities

While no specific recommendations were made as to how to improve group activities, graduates did feel that it needed improvement, especially in the early years of the programme:

"I think I don't know; I just feel group activities could be better but looking back, by the time you were in fourth year they were working better." [G9]

5.2.8.12 Online access

A graduate recommended that there should be an improvement in terms of online access to resources:

"...more of the information online accessible for students." [G9]

And,

"The resources like your PowerPoints." [G9]

5.2.8.13 Financial support

Graduates also recommended that financial support needs attention as well, as indicated by the below response:

"They didn't have the necessary funds to go to the placement. The bursary is not enough. And you don't go to the programme and you get the bursary immediately. Some of us had to get a job till the bursary. I was even struggling to get a uniform." [G10]

5.2.8.14 Importance of consistent and continuous support

The importance of consistent and continuous support was another recommendation made by graduates. Graduates indicated mentorship as a means of providing such support as stated by one graduate:

"You need that mentorship and like that consistent mentorship and somebody you can go to and ask questions and they can explain things more than once because you need more than one explanation sometimes." [G9]

5.2.8.15 More opportunities to take responsibility

Graduates recommended that students need more opportunities, earlier in their studies, to take responsibility, especially in the clinical placements. Below is a response from one graduate:

"...students more exposure to take on that responsibility to be accountable in our junior years where we are just floating around. Leaving early because we are trying our luck and things like that. I think in the clinical placement we needed to have more..." [G15]

5.2.8.16 Concluding statement

Based on the findings of the qualitative interviews with the graduates and the themes and categories presented in Table 5.1 the following can be concluded as: Graduates experiences with pedagogy, personal disposition, work integrated learning, positive work environment and academic support, programme structure, development of metacognition/ Bloom's NQF levels, professional skills, personal

and professional development, curriculum content and lecturer attributes were of the utmost importance to the graduates with regard to the programme.

5.3 FINDINGS FROM THE EMPLOYERS SEMI-STRUCTURED INTERVIEWS

Five themes and 20 categories were generated from the employer data (direct supervisors), as illustrated in Table 5.2 below.

Table 5.2: Themes and categories from employer interviews

Themes	**Categories**
5.2.1 Varied perceptions about graduates	5.2.1.1 Self-development and professional growth
	5.2.1.2 Professional attributes
	5.2.1.3 Interpersonal competencies
	5.2.1.4 Behaviours and attitudes
	5.2.1.5 Professional image
5.2.2 Initial lack of confidence and competence in certain skills	5.2.2.1 Management skills
	5.2.2.2 Interpersonal skills
	5.2.2.3 Specialised nursing skills
	5.2.2.4 Practical skills
5.2.3 Reasons for competency-related matters	5.2.3.1 Their minds are not open [yet]
	5.2.3.2 Personal motivation
	5.2.3.3 Social issues
	5.2.3.4 Dealing with reality
5.2.4 Issues related to the early transition	5.2.4.1 Difficulty in translating theory to practice
	5.2.4.2 Lack of practice/experience
	5.2.4.3 Emotive reasons

Themes	Categories
	5.2.4.4 Insufficient support from management at the facilities required augmented support from the employers
	5.2.4.5 Complexities of client health
5.2.5 Suggestions for improvement	5.2.5.1 More clinical/practical exposure
	5.2.5.2 In-service training for graduates

5.3.1 **Varied perceptions about graduates**

The first question that was posed to employers during the semi-structured interview, was to elaborate on their positive or negative experiences with the specific graduate that they rated during phase 1 of this study. From the responses, it appears that more positive experiences were noted for this specific cohort of graduates. Under this theme, five categories were identified as outlined in Table 5.2.

5.3.1.1 Self-development and professional growth

Employers experienced graduates to have a positive attitude towards their self-development and professional growth. Graduates were experienced as being eager to learn, as evidenced by the following quotes;

"She was willing to learn. She was willing to open herself to be able to be taught." [E7]*;*

"Very eager to learn so with everything, it was a teachable moment." [E12]

And,

"…the eagerness to learn. Doing extra duty." [E15]

Graduates were also reported to be actively engaged, as evidenced by the following statement:

"She was really hands-on." [E12]

While some graduates were experienced as being eager to learn and actively engaged, the opposite was also reported, whereby employers pointed out graduates to be passive as evidenced by the following statement:

"Not asking but then also not doing something." [E7]

5.3.1.2 Professional attributes

Employers also experienced the graduates to be very professional, referring to various professional attributes such as being ethical and having integrity as can be seen from the following two quotes:

"He's got good ethics." [E1]

And,

"…integrity…" [E15]

One employer reported a particular graduate to be very receptive, as can be deduced from her statement:

"…she was very open and is a very fast learner." [E2]

Graduates were also being described as disciplined and reliable:

"I think you guys must know how disciplined they are in things like coming on duty on time, leaving on time and stuff like that. I think it has to do with maybe what is that word, how reliable maybe they really are." [E12]

And,

"Let me start with the positive ... And very much valuable and also committed as not you know having a problem with absenteeism. You can say loyalty and integrity - very high." [E15]

Employers also indicated that the graduates were knowledgeable:

"She was very knowledgeable." [E2]

Graduates were also experienced as being skilled and independent, in addition to being knowledgeable. The same employer quoted above stated the following with regard to the graduate:

"Then she ran the whole project for us." [E2]

Other employers stated the following:

"Like she could run a complete Alpha club on her own." [E3];

"So she was working alone and she coped very well." [E11]

And,

"So she was very good with clinical skills and she has grasped very well what we are taught here in trauma." [E12]

While in phase 1, computer literacy was rated by the employers as not a vital graduate attribute to have, some employers did point out computer literacy and job performance of graduates as a positive experience, as voiced by one employer:

"...some of them are very good computer literate in doing maybe other functions of the computer." [E9]

Linking with the aforementioned, employers perceived graduates to be well advanced, as evidenced by the following statement:

"They will come across pretty much well advanced." [E1]

The last professional attribute was that of caring. Nursing is viewed as a caring profession; therefore, it would be expected for a nursing graduate to display this quality. The following quote from one of the employers serves as an example:

"She was reassuring, talking to the mother, explaining to the mother what happens and stuff like that." [E2]

5.3.1.3 Interpersonal competencies

Another positive pointed out by employers was that of the interpersonal competencies of the graduates, as captured by the following:

"He's got good ethics." [E1]

Respect as an interpersonal competency was raised by employers, as evidenced by the following:

"...respectful towards the patient that he was looking after. He was very respectful towards us as supervisors, including his colleagues." [E1]

Employers found graduates to be *"pleasant to work with"* [E12] and able "*to work in the team"* [E15].

5.3.1.4 Behaviours and attitudes

Graduates' behaviours and attitudes was another positive experience reported by some of the employers as confirmed by the following quote:

"His behaviour and attitude was positive… He has really got a good attitude towards everything... in his career." [E1]

However, some employers indicated that there were issues related to the attitude of graduates under their direct supervision, as expressed in the following quotes:

"The others had a more positive attitude. They were more approachable. They were more open… Then you will also get feedback from doctors that will say I can ask that one something and that one will answer me or that one will say no, I will go quickly look for you or whatever. But then this one will say no, I don't know. … she was not also open like… sometimes unreasonably not open for learning opportunities." [E7]

And,

"…they have an attitude that I am also in the same position as you are." [E9]

5.3.1.5 Professional image

Employers, as direct supervisors of the graduates, voiced the professional image that the graduates are displaying as positive as stated below:

"…want to dress neatly. It is a plus. They want to have a certain nail polish. They want to have certain hairstyles. They want to have make-up. They want to put themselves out there. They're very proud of themselves, yes, we give them that." [E7]

5.3.2 **Initial lack of confidence and competence in certain skills**

Employers were asked whether the graduate's competencies were adequate or not for the job requirements and the theme that arose was that there is an initial lack of confidence and competence in certain skills. Four categories were identified under this theme as outlined below.

5.3.2.1 Management skills

One of the skills where graduates lacked confidence and competence, according to employers, was management. One employer made the following statement:

"…on the technical side of managing the ward, maybe it is different for them." [E9]

Graduates seem to be lacking confidence in the delegation of tasks, as evidenced by the following quotes:

"He… was not so much into confidence to delegation when it comes to colleagues and others" [E1];

"…they're also afraid to delegate." [E7]

And,

"But they don't have the experience to delegate as the senior people do." [E9]

Another management skill identified by employers as lacking was that of disciplining subordinates, as supported by the following quote:

"…not feeling easy to discipline subordinates." [E15]

Graduates also struggled with staff allocation, according to the following employer:

"…there was no duty allocated, so who are you holding responsible for that person." [E15]

5.3.2.2 Interpersonal skills

Employers identified interpersonal skills, more specifically being non-assertive, as another skill where graduates lacked confidence. One employer stated the following:

"…too much of submissive." [E1]

5.3.2.3 Specialised nursing

Employers pointed out specific disciplines within nursing, where students did not have exposure or experience. Some graduates also raised this. The following statement supports the employers' view:

"…didn't have any theatre experience… they come they have no cooking clue about theatre." [E2]

Another employer identified dressings to be another skill where graduates lacked confidence or competence, as evidenced by:

"Maybe dressings. Because there we can see really. We take months before we put them in the dressing room." [E3]

5.3.2.4 Practical skills

Handing out medication and or the ordering of medication was a more practical skill pointed out by employers where graduates lacked confidence or competence, as evidenced by the following two employers:

"...when giving out medication they're not sure when it is the correct dosage or not seeing that they don't have the experience and the knowledge of what certain medication dose should be" [E9]

And

"...unfortunately, the person didn't order the next ... so what happened, before the end of the day she didn't address it. And the night they needed it. So that caused that the medication wasn't available." [E15]

Employers voiced that graduates did not have competence in pathophysiology, as voiced by the following statement:

"...don't really know the pathophysiology of say a [pneumothorax]*, TB, pneumonia, asthma."* [E7]

Graduates were also perceived as lacking competence in writing nursing care plans. One of the employers made the following statement in support of this:

"...write a nursing care plan for that symptoms for the patient. And I think she struggles with that. So it is as if they..." [E7]

Patient admission was another skill pointed out by employers, as can be evidenced by the following:

"But the thinking of on admission of the patient, that thinking is not there right away." [E7]

Patient ventilation was another skill pointed out by employers, as can be evidenced by the following:

"...if they have maybe more experience about ventilate a patient because I think that can have more exposure to that because we do ventilate patients here also in this area. If they can have maybe more experience about that. I think that is something extra." [E12]

5.3.3 **Reasons for competency related matters**

Employers were prompted as to what they think the possible reasons could be for the competency-related matters mentioned above and four categories arose under this theme.

5.3.3.1 Their minds are not open [yet]

Some graduates were reported as not being receptive by employers, whereby they could learn from other ways of thinking and doing, as stated by this employer:

"... their minds are not that open man. And I don't know why because it is not that they are bad. You know? They just need somebody to open that door for them and sometimes it is time-consuming." [E7]

5.3.3.2 Personal motivation

Some employers indicated that personal motivation could influence competency in graduates. Two examples of those mentioned above are:

"…your personal interest…they were just put into nursing because there was no other option." [E2]

And,

"…maybe not in this medical field; maybe trauma or Midwifery or wherever. Because if you don't like something you don't give your everything. So maybe it is that, or maybe it is just their expectation of nursing is not what they think they were busy with." [E7]

5.3.3.3 Social issues

Social issues of graduates were another possible influencing factor on their competence, as evidenced by the following quote:

"Or some of them because they're not eighteen-year-olds or nineteen-year-olds, some of them are mothers. Some of them are young adults. Head of households. So they might have other social issues that we don't know of because they don't open up to us in such a manner because you need to build that relationship and it is also difficult because they know they're only here for a year." [E7]

5.3.3.4 Dealing with reality

Besides the social issues, employers pointed out that graduates also need to deal with reality; in other words, the world of work. Below are two quotes from employers in this regard:

"…now they come and now it is the real world for them." [E2]

And,

"…expectation of what she was going to get on this side when she came to the workplace maybe we didn't meet her expectation because our setup is different from the tertiary hospital." [E7]

5.3.4 **Issues related to the early transition**

Employers were asked for reasons as to why graduates could not fully transition to the world of work as it was found in phase 1 of the study that the average competency rating was 50% for the graduates rated. Various possible reasons were offered as outlined below:

5.3.4.1 Difficulty in translating theory to practice

Employers felt that graduates had difficulty translating theory to practice, as evidenced by the following:

"…the transition is not easy on them because to shift from the student capacity to that of a professional nurse that is really applying all the theory and the prac [practical] *that they studied was not easy on them."* [E1];

"…she still needs some practical guidance with simple things. Maybe they know it the theory, but they need the practical side of it." [E7]

And,

"…they also can't bring the theory to the practical together." [E9]

Linking with the issues above with transition, one employer identified a lack of clinical exposure as a possible reason for the difficult transition:

"I think there are certain areas, because they spend a lot of time in theory classes, they are not very often in the clinical areas… they actually have to do it physically with a normal human being, a patient – they struggle." [E9]

5.3.4.2 Lack of practice/experience

Employers also identified a lack of practice or experience in the graduates as one of the issues contributing to the difficulty in the early transition period, as voiced in the following statements:

"Maybe it is a lack of practice." [E7]

And,

"…we don't treat them as Sisters because they don't have the experience as Sisters." [E9]

Another employer pointed out the using of old and new technology, contributing to the lack of practice or experience:

"If the technology machine is broken then everything stands still. They can't use the manual baumanometer because they don't know how to use it.

So they need to know the ground level of using things also." [E9]

5.3.4.3 Emotive reasons

Emotive reasons for the initial difficult transition period was also raised by employers who felt that graduates were overwhelmed by the responsibility and accountability when entering the world of work, as evidenced by the following:

"…they were overwhelmed… taking this huge role and responsibility." [E1]

And,

"…maybe so overwhelming but then also in the workplace." [E7]

In addition to being overwhelmed by the responsibility and accountability, one employer raised fear as another emotive reason:

"…afraid of the unknown or when they go for the first time." [E7]

5.3.4.4 Insufficient support from management at the facilities required augmented support from the employers

Employers also identified that graduates received insufficient support that required augmented support in order for graduates to transition to the world of work. Some of the comments made by the employers were as follow:

"The support to them was never even sufficient enough. Hence there is a manager at our institution who makes integration for them to transition well by using the Department of Health programme…So that is where we found that the transition

was not easy because in some instances because of our skeletal staff it made them to in charge of the ward without support." [E1];

"The CPUT students, they're more practically inclined. They will just jump in where the UWC, you will actually really have to guide them." [E3],

And,

"Maybe a lack in guidance because we also don't have the time always… needs a lot of mentoring." [E7]

In phase 1 of this study employers did indicate that there was some support for graduates to transition. This finding was supported during phase 2, where employers stated some facilities had support such as programmes, mentoring, guidance/shadowing that mitigated risk due to a lack of experience or skills. The following quotes are evidence of the support mentioned being provided:

"…we have lots of support for them. And also they go on a programme before they come. They go to our education department where they also have a clinical facilitator before they come in and have their programme." [E2],

"When they come here than we usually guide them" [E3];

"…the atmosphere we provide for them in the area that they work in helps them to get that confidence and then they progress very well…always some sort of supervision." [E9]

And,

"There was always a senior professional nurse supervising them." [E12]

5.3.4.5 Complexities of client health

One employer pointed out the complexities of client health at their specific institution, which could also contribute to the graduates experiencing difficulty in the initial transition:

"…the setup was not so conducive to them to understand because our clients are a complex client health because we have intellectual disabilities, our institution." [E1]

5.3.5 **Suggestions for improvement**

Employers were asked for any suggestions for improvement for the new programme and mainly two categories were raised, as outlined in Table 5.2.

5.3.5.1 More clinical/practical exposure

Most of the employers stated that students need more clinical exposure and clinical skills, as evidenced by the following statements:

"More practical exposure" [E3];

"…they need more clinical exposure…the years they've learnt different things to be exposed all of those things in the year as a com nurse. That would be more advisable instead of just learning one thing for twelve months. So when you go to another, getting a job outside, you weren't exposed to a variety of things." [E9]

And,

"Maybe more on clinical skills." [E12]

The above statement was further elaborated upon by the employer:

"trauma…suturing part…putting up of IV lines…record-keeping." [E12]

5.3.5.2 In-service training for graduates

While the question that was posed was asking for suggestions for improvement from the institution's side with regard to the new programme, one employer suggested that the clinical facilities need to offer more in-service training that would be more specific to that specific facility:

"Maybe some more in-service training at the facilities where they're working at maybe so that we can adapt to a different... each facility has different ways of doing things. So maybe if we can orientate them more and expose them more to common things that comes up in the hospital settings." [E9]

CONCLUDING STATEMENT:

Based on the findings of the qualitative interviews with the employers and the themes and categories presented in Table 5.2 the following was concluded: Employers experiences with personal and professional development, professional skills, positive personal disposition, conducive transitioning conditions and work integrated learning were of the utmost importance to the employers with regard to the graduates' preparedness.

5.4 SUMMARY

This chapter outlined the findings of phase 2 of this study, which was garnered through semi-structured interviews with the graduates and their employers. These

findings were preceded by a summary of how they were arrived at. An integrated discussion will follow in Chapter 7.

Graduates expressed mostly positive experiences, of which the clinical setting was a highlight for most of the graduates interviewed. They indicated that the theory-practice integration was helpful and that the clinical support worked well and was appreciated. They also appreciated positive feedback received from academic staff and were mostly happy with the teaching and assessment, which they found to be mainly adequate and clear. Challenges were experienced and raised were being underprepared, limited clinical exposure in the first year of study, ward dynamics in the clinical facilities, adaptation in the early years of study, and the learning and assessments. The second-year General Nursing Science was pointed out as challenging, whereby too much time is spent in practice, impacting on theoretical outcomes and reducing contact and preparation time with lecturers. The assessments in the second year were also identified as challenging and the fact that the teaching medium is a second language for most students, thus impacting learning. Numerous other challenges were raised as well. Graduates also voiced potential reasons as to why graduates passed cum laude and summa cum laude in phase 1 of this study. These graduates utilise skills that they gain from the programme in their community service year more than their counterparts who just passed. The graduates also commented on ways in which the Bachelor of Nursing programme prepared them for the transition from university to the world of work, and to relay any incidents where they felt that they lacked competence for the job. Graduates also made recommendations for improvement to the new programme.

Employers mostly perceived students as positive. This was related to their eagerness for self-development and professional growth. Their professionalism was appreciated. They displayed good interpersonal skills, positive behaviours and attitudes. When negatively experienced, the opposite was observed, namely a poor attitude and a passive stance towards learning and doing the necessary work. The newly qualified nurses initially lacked confidence and competence related to management, interpersonal and practical or specialised nursing skills, but these were overcome relatively quickly. A few reasons were given for their lack of competence and included issues with receptiveness, personal motivation, social issues and the ability to deal with reality. Some reasons were also given for the difficulties experienced related to the early transition period, speaking to difficulty in theory-practice integration, lack of experience, emotive reasons and issues of support. A few aspects were mentioned for improvement, which mostly relates to practice and clinical issues.

CHAPTER 6

FINDINGS: PHASE 3

QUANTITATIVE - GRADUATE CONJOINT ANALYSIS

6.1 INTRODUCTION

This chapter presents the findings of the conjoint analysis, which responds to objective 1.5.4, which was Phase 3 of the study, as described in Chapter 3. Together with objectives 1.5.1, 1.5.2 and 1.5.3, the findings of this objective advise the last objective, 1.5.5., which was to develop and describe a framework to inform the micro-curriculum of the new Bachelor of Nursing programme.

Phase 3 relates to all the dimensions of the adapted four-dimensional curriculum development framework of Steketee, Lee, Moran, and Rogers (2013), as discussed in Chapter 2. Dimension one refers to the future orientation of health practices, therefore, relating directly to the current nursing education reform and the implementation of the new nursing qualifications in South Africa. Dimension two refers to the knowledge, competencies, capabilities and practices of the graduates, while dimension three refers to the teaching, learning and assessment approaches and practices. Dimension four deals with institutional delivery.

This chapter outlines the conjoint analysis of the graduate data. The researcher decided on conjoint analysis as it helps establish which characteristics/attributes the clients or consumers (in this study, the graduates) value of a product or service (in

this study, the attributes of the legacy Bachelor of Nursing programme). Conjoint analysis is often used in the business field before launching a new product or service. Phase 1 of this study did not determine graduates' views regarding the importance of the existing attributes of the legacy programme to be included in the new micro-curriculum. Conjoint analysis was therefore used to determine the graduates' importance ratings to inform the advisory framework development for the micro curriculum of the new nursing programme. An in-depth discussion of the findings follows in Chapter 7.

Conjoint analysis is a statistical method to determine how participants value different attributes that make up an individual product or service. In this study, these evaluations were used for choice-based modelling to inform the framework of the new micro-curriculum in the legacy nursing curriculum. The QuestionPro website determined an embedded evaluation of the individual preferences by analysing how they choose their preferences, called utilities or part-worths. Utilities were scaled to sum to zero within each attribute, using a dummy coding called effects coding. Part-worth values are similar to regression coefficients that provide a quantitative measure of each attribute level. The importance of an attribute was determined by the difference between its Utility Range and Total Attribute Utility Range. Each attribute's relative importance was calculated by calculating the Attribute Importance, which was ratio-scaled and scored on a scale of 1 to 100. All of the steps in this study phase were performed by the QuestionPro website.

6.2 GRADUATE CONJOINT SURVEY FINDINGS

The graduate conjoint survey posed eight (8) questions to the participants based on the eight (8) categories of Phase 1 of the study. The graduates only rated their experiences with the different components of the legacy programme during Phase 1. In Phase 3, they identified components they regarded as important for incorporation in the new curriculum. The eight (8) categories were as follows: Facilitation of class session by lecturer; Structure and content of the programme/modules; Contact with lecturers; Resources (teaching material); Clinical teaching and learning; Clinical placements; Clinical supervision and Resources for skills laboratories. The findings of each of these categories are presented below.

6.2.1. Facilitation of class session by lecturer

This category is related to the following attributes: assessments; linking theory to practice; opportunity to question; need for students to problem solve and lecturer expertise.

Graduates were eight times more likely to rate the fairness of assessments as very important than important, as illustrated in Table 6.1 below, representing the part-worth utilities. They were also two times more likely to rate the lecturer's ability to link theory to practice as very important compared to important.

A comparison across constructs is not possible, due to the constructs each having their own set of attributes relative to the construct. It is possible to compare across the attributes within the category or construct due to the mean weighting of the levels set to zero, keeping in mind that it is relative to the other attributes within the construct for the specific study. It is interesting to note that the range between the levels for assessments being fair is far higher than the range between sufficient opportunities to question. Therefore, sufficient opportunity to question had the least impact on preference for the category (Figure 6.1).

Table 6.1: Part-worth utilities for facilitation of class by lecturer

Attribute	Importance	Level	Utility Value
The assessments is fair	33%	Not Important	-0.88
		Important	0.05
		Very Important	0.83
The lecturer is able to link theory to practice	24%	Not Important	-0.75
		Important	0.27
		Very Important	0.48
Lecturer appears to be an expert in the area	17%	Not Important	-0.56
		Important	0.35
		Very Important	0.22
Lecturer requires students to problem solve	17%	Not Important	-0.56
		Important	0.33
		Very Important	0.22
Sufficient opportunity to question	9%	Not Important	-0.23
		Important	-0.04
		Very Important	0.27

Figure 6.1 indicates that overall, in Phase 3, a third of the participants indicated that the attribute or construct of *fair assessments* was the most important, relative to the other components in the category facilitation of class session by a lecturer. *Assessments being fair* was followed closely by *the lecturer's ability to link theory to practice*, with equal importance assigned to whether the lecturer appeared to be an area expert and requiring the students to problem solve. The least important attribute was that of *sufficient opportunity to question*, as mentioned earlier.

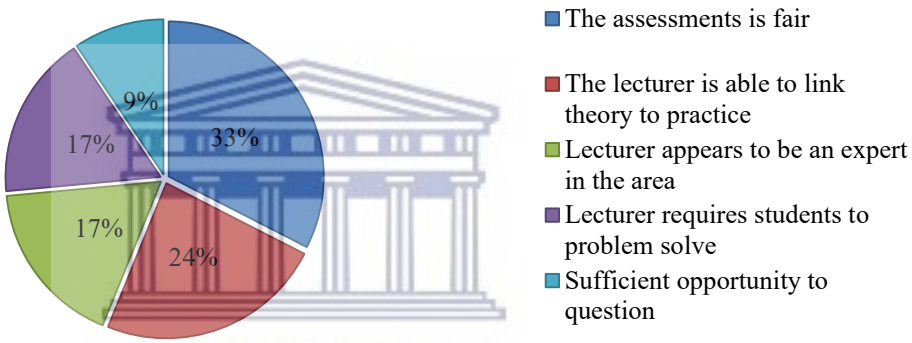


Figure 6.1: Attribute importance for facilitation of class session by lecturer

It therefore, appears that graduates value the fairness of assessments, the lecturer's ability to link theory to practice, the lecturer being an expert in the area and requiring students to problem solve as more important than sufficient opportunity to question.

For class facilitation, by the lecturer, the graduates preferred the assessments to be fair with sufficient opportunity to question and the lecturer to be able to link theory to practice and regarded it as very important for the new curriculum.

6.2.2 Structure and content of the programme/modules

This category was related to the modules offered in the programme. It looked at relevance, research requirements, problem-solving and critical thinking skills and preparation for the role as a registered nurse.

For the structure and content of the programme or, more specifically, the modules, the highest range in part-worth utilities was that of modules addressing current issues faced by nurses in practice. In contrast, modules requiring the students to conduct research had the least difference in range (Table 6.2).

Table 6.2: Part-worth utilities for structure and content of the programme/modules

Attribute	Importance	Level	Utility Value
Modules address current issues faced by nurses in practice	**27%**	*Not Important*	-0.68
		Important	-0.07
		Very Important	0.75
Adequate in preparation for role as a registered nurse	21%	*Not Important*	-0.74
		Important	0.38
		Very Important	0.37
Modules assist students to develop CRITICAL THINKING SKILLS	20%	*Not Important*	-0.63
		Important	0.20
		Very Important	0.44
Modules assist students to develop PROBLEM SOLVING SKILLS	19%	*Not Important*	-0.45
		Important	-0.10
		Very Important	0.55
Modules require students to conduct research (this does not include searching for module content, etc.)	12%	*Not Important*	-0.35
		Important	0.06
		Very Important	0.28

Based on the finding above, the most important attribute identified by graduates in this category was that of *modules addressing current issues faced by nurses in practice* and *modules requiring the students to conduct research* as the least important attribute (Figure 6.2).

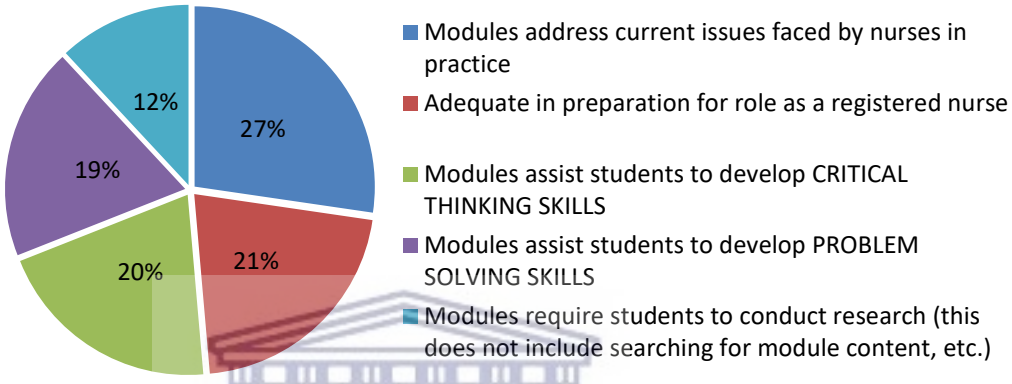


Figure 6.2: Attribute importance for structure and content of the programme/modules

Graduates indicated that it is important that modules address current issues faced by nurses in practice, adequately prepare them for the role as a registered nurse and assist development of critical thinking skills as very important for inclusion in the new curriculum.

6.2.3 Contact with lecturers

This category was related to lecturers' ability to refer and address academic concerns as well as availability for consultations.

Table 6.3 below shows almost equal preferences amongst the attributes under the category of contact with lecturers.

Table 6.3: Part-worth utilities for contact with lecturers

Attribute	Importance	Level	Utility Value
Lecturer available for consultation	**41%**	*Not Important*	-1.82
		Important	0.85
		Very Important	0.97
Lecturer able to address student academic concerns	35%	*Not Important*	-1.35
		Important	0.34
		Very Important	1.01
Lecturer able to refer appropriately	24%	*Not Important*	-0.44
		Important	-0.58
		Very Important	1.03

However, almost half of the graduates had a higher preference for *lecturers to be available for consultation*, compared to a *lecturer being able to address students' academic concerns*. *Lecturers being available for consultation* was even more desirable than the *lecturer's ability to refer appropriately*, as shown in Table 6.3 above and more clearly in Figure 6.3 below.

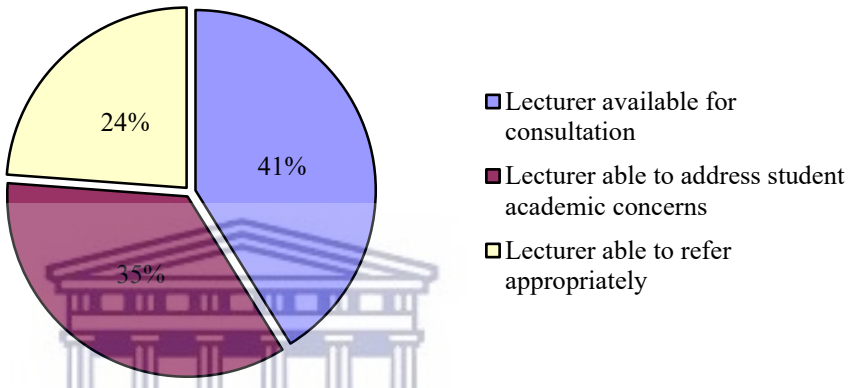


Figure 6.3: Attribute importance for contact with lecturer

In terms of contact with the lecturer, graduates indicated that it is very important that the lecturer be available for consultation, address student academic concerns, and refer appropriately for the new curriculum.

6.2.4 Resources

This category was related to the availability and quality of teaching material and the effective use thereof.

When looking at resources, which were teaching materials such as PowerPoint slides and handouts in the form of notes, graduates preferred the availability of the resources and regarded it as very important (Table 6.4).

Table 6.4: Part-worth utilities for resources

Attribute	Importance	Level	Utility Value
Quality of teaching material	36%	*Not Important*	-1.34
		Important	0.63
		Very Important	0.71
Availability of teaching material e.g. visual aids, handouts etc.	34%	*Not Important*	-0.99
		Important	0.04
		Very Important	0.95
Effective use of teaching material	29%	*Not Important*	-1.08
		Important	0.52
		Very Important	0.56

However, looking at the overall attribute importance for the category of resources in Figure 6.4 below, graduates preferred the *quality of the teaching material* to be marginally more important than the *availability of the teaching material*.

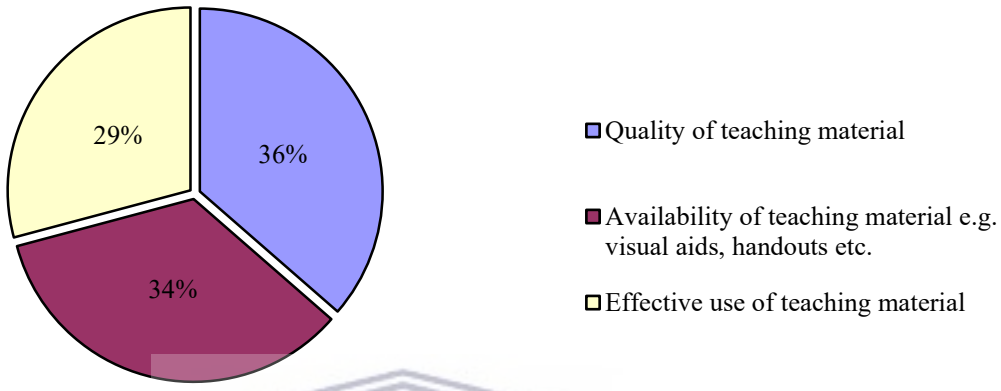


Figure 6.4: Attribute importance for resources

Graduates indicated that the quality and the availability of teaching material, for example, visual aids and handouts, as well as the effective use of the teaching material are very important in terms of resources for inclusion in the new curriculum.

6.2.5 Clinical teaching and learning

The next category was related to the programme's clinical component and specifically looked at attributes expected for teaching and learning in the clinical facilities and skills laboratories.

Table 6.5: Part-worth utilities for clinical teaching and learning

Attribute	Importance	Level	Utility Value
Demonstrations pitched at the correct level	**51%**	*Not Important*	-2.15
		Important	-2.04
		Very Important	4.19
Adequate in preparation for role as a registered nurse	16%	*Not Important*	-1.01
		Important	0.96
		Very Important	0.05
Effectively develop clinical confidence	14%	*Not Important*	-0.77
		Important	-0.22
		Very Important	0.99
Lecturer/Clinical Supervisor require students to problem solve	8%	*Not Important*	-0.67
		Important	0.37
		Very Important	0.30
Lecturer/Clinical Supervisor able to link practice to theory	6%	*Not Important*	-0.49
		Important	0.24
		Very Important	0.26
Sufficient opportunity to question	4%	*Not Important*	-0.31
		Important	0.13
		Very Important	0.18

Table 6.5, above, shows that demonstrations pitched at the correct level during clinical teaching and learning were highly preferred by graduates as very important. Graduates chose the *demonstrations pitched at the correct level* as very important was, therefore, the most important attribute for clinical teaching and learning. *Sufficient opportunity to question* had the least impact on the attribute importance for teaching and learning, as can be seen in Figure 6.5 below.

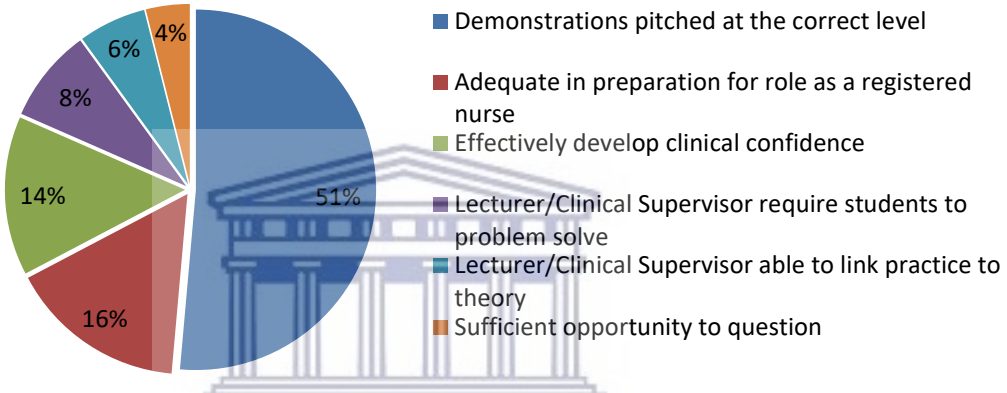


Figure 6.5: Attribute importance for clinical teaching and learning

Demonstrations pitched at the correct level, adequacy in preparation for role as a registered nurse and effectively developing clinical confidence were considered as very important for the new curriculum.

6.2.6 Clinical placements

This category was related to the learning opportunities at the clinical placement facilities and whether it was appropriate for theory-practice integration. It is also associated with whether orientation and time spent per placement were sufficient,

in addition to whether registered nurses supported them and if the clinical placement prepared them for the role as registered nurses.

All the graduates were likely to place a higher preference on sufficient learning opportunities at the clinical placement as very important, as illustrated in Table 6.6 below.

Table 6.6: Part-worth utilities for clinical placements

Attribute	Importance	Level	Utility Value
Sufficient learning opportunities at placement	**25%**	*Not Important*	-0.91
		Important	-0.00
		Very Important	0.91
Appropriate placements for linking of theory and practice	18%	*Not Important*	-0.77
		Important	0.22
		Very Important	0.55
Support from registered nurses at the placements	17%	*Not Important*	-0.76
		Important	0.28
		Very Important	0.48
Sufficient time spent per placement	17%	*Not Important*	-0.74
		Important	0.25
		Very Important	0.49
Sufficient orientation to placement	16%	*Not Important*	-0.67
		Important	0.23
		Very Important	0.45
Adequate in preparation for role as a registered nurse	7%	*Not Important*	-0.30
		Important	0.20
		Very Important	0.10

Besides the *sufficient learning opportunities* being very important to graduates, the rest of the attributes in this category had an almost equal share of attribute importance, except for whether the clinical placements *adequately prepared students for their role as registered nurses*. This attribute was least preferred, accounting for only 7% importance, as shown in Figure 6.6 below.

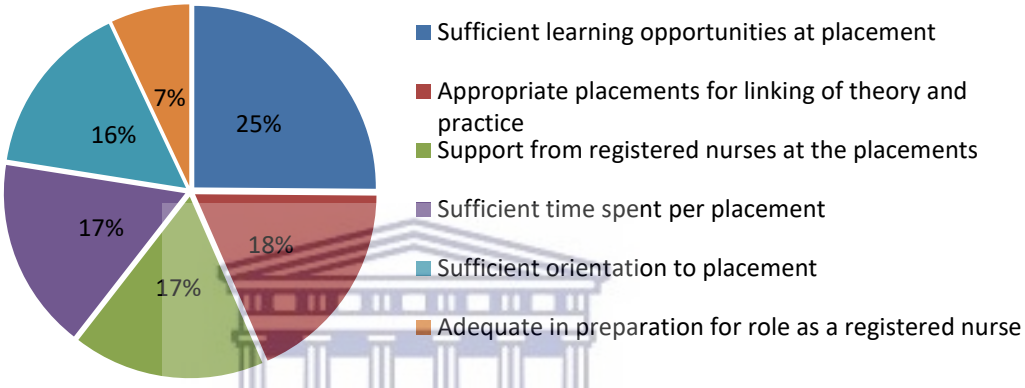


Figure 6.6: Attribute importance for clinical placement

Clinical placements are linked closely with clinical teaching and learning. Graduates rated sufficient learning opportunities at the placements, appropriateness of placements for linking theory and practice and the support from the registered nurses at the placements as very important for the new curriculum.

6.2.7 Clinical supervision

This category was related to whether the clinical supervision promoted critical thinking, problem-solving skills and clinical judgement in real-life settings and provided sufficient one-on-one interaction with clinical supervisors providing support and effective feedback.

In the clinical supervision category, most graduates preferred the promotion of critical thinking in real-life setting as very important, with none choosing it as important (Table 6.7).

Table 6.7: Part-worth utilities for clinical supervision

Attribute	Importance	Level	Utility Value
Promote PROBLEM SOLVING SKILLS in real life setting	23%	*Not Important*	-0.90
		Important	0.41
		Very Important	0.48
Promote CRITICAL THINKING in real life setting	17%	*Not Important*	-0.51
		Important	-0.01
		Very Important	0.52
Promote CLINICAL JUDGEMENT in real life setting	14%	*Not Important*	-0.42
		Important	0.46
		Very Important	-0.03
Sufficient one-on one supervision	14%	*Not Important*	-0.54
		Important	0.28
		Very Important	0.26
Clinical Supervisors provide clinical support	13%	*Not Important*	-0.52
		Important	0.26
		Very Important	0.25
Clinical Supervisors honor the appointments	11%	*Not Important*	-0.43
		Important	0.19
		Very Important	0.24
Clinical Supervisors provide effective feedback	8%	*Not Important*	-0.19
		Important	0.33
		Very Important	-0.14

However, the most important attribute for this category was *promoting problem-solving skills in a real-life setting*, as depicted in Figure 6.7 below. The *promotion of problem-solving skills* was followed closely by fostering *critical thinking skills in a real-life environment*. The *ability of the clinical supervisors to provide effective feedback* was the least important attribute.

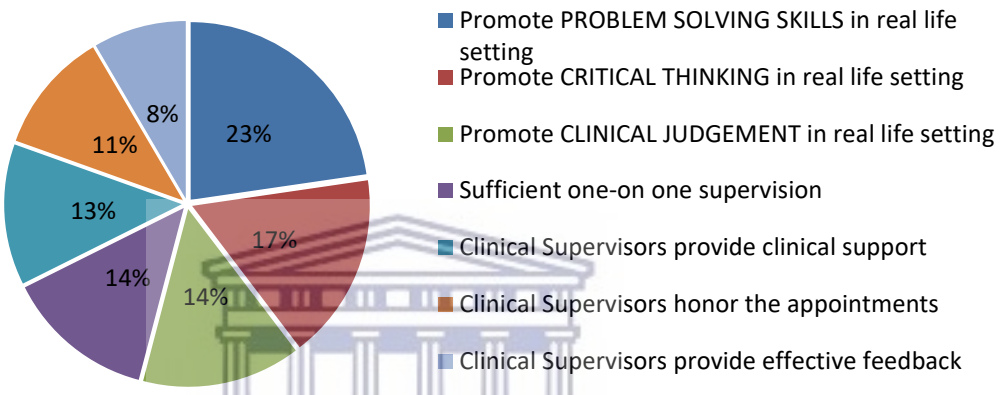


Figure 6.7: Attribute importance for clinical supervision

In terms of the actual clinical supervision received, graduates preferred that clinical supervisors promote problem-solving skills, critical thinking and clinical judgement in real-life settings as very important for the new curriculum.

6.2.8 Resources for skills laboratories

The last category was that of resources for the skills laboratories. This category was related to the quality and adequacy of equipment. It was also associated with opportunities to use the equipment in the skills laboratory.

Most graduates indicated the quality of the equipment in the skills laboratories as very important (Table 6.8), with half of the graduates indicating it as important.

Table 6.8: Part-worth utilities for resources for skills laboratories

Attribute	Importance	Level	Utility Value
Quality of equipment in skills laboratories	41%	Not Important	-1.47
		Important	0.46
		Very Important	1.01
Adequate for training in preparation for placement	34%	Not Important	-1.30
		Important	0.55
		Very Important	0.75
Sufficient opportunity to use equipment	25%	Not Important	-0.92
		Important	0.63
		Very Important	0.29

The very important preference for the *quality of the equipment* can be seen in Figure 6.8 below, where slightly more overall importance was placed on the *quality of the equipment in the skills laboratories*, and the least important attribute was, *sufficient opportunity to use the equipment*.

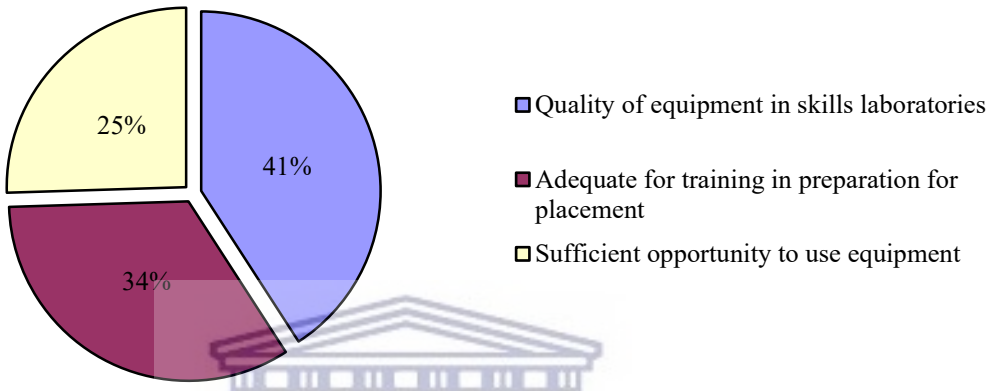


Figure 6.8: Attribute importance for resources for skills laboratories

For resources in the skills laboratory, graduates preferred the equipment's quality and adequacy for training in preparation for placement, rating these as very important while preferring sufficient opportunity to use the equipment as important for inclusion in the new curriculum.

6.3 SUMMARY

This chapter outlined the findings of Phase 3 of this study, which was the conjoint analysis survey with the graduates. Conjoint analysis was used in this study to guide the researcher towards the most preferred choice of graduates in terms of all the dimensions influencing curriculum development. The aim was to develop an

advisory framework to inform the development of the micro curriculum. A more integrated discussion will follow in Chapter 7.

Graduates did not indicate one of the attributes under the different categories in the programme as unimportant for the new curriculum, demonstrating that they value all the existing attributes, although some more than others. The next chapter will discuss these findings in more detail, including those of Phase 1 and Phase 2 of the study.

CHAPTER 7

DISCUSSION ON FINDINGS OF THE STUDY AND PRESENTATION OF THE ADVISORY FRAMEWORK

7.1 INTRODUCTION

The chapter entails an in-depth discussion of the findings of all the phases in the study, how the findings of the phases interlink and how they address the study's research objectives. The study had five main objectives, which were to describe the graduates' views on the quality of the undergraduate nursing programme in terms of its content, delivery and relevance to their world of work and possible gaps in year level and discipline-specific theory and clinical competencies required in their world of work. The second objective was to describe the employers' views regarding the attributes, competencies and competence of the graduates in their employ and areas for improvement in specific disciplines. The third objective was to explore and describe graduates and employers' views on their responses that were predominantly positive or negative in objectives 1 and 2 and their views regarding specific competencies, which would improve the quality and relevance of the new Bachelor of Nursing programme. Objective number four was to describe the graduate's ranking of the importance of each component of the Bachelor of Nursing programme. The last objective was to develop and describe a framework, guided by the above objectives, which will be used to inform the micro-curriculum of the new Bachelor of Nursing programme.

Framework development was based on the ranking of the UWC graduate attributes by the employers and the graduates in terms of importance for practice and most developed respectively, found in phase 1 of the study. In addition, the concluding statements of the qualitative phase of both the employers and the graduates on the most significant findings were also used in the framework development together with the three most important items of the eight constructs as found in the conjoint analysis phase of the study.

7.2 DIMENSION ONE: FUTURE ORIENTATION OF HEALTH PRACTICES

As indicated in Chapter 2, this dimension of the four-dimensional curriculum development frameworks relates to the current nursing education reform and the implementation of the new nursing qualification in South Africa.

A detailed discussion of this can be found in Chapter 1. Although it did not form part of this study, it was a precursor to this study. The nursing education reform informed the curriculum development team and various stakeholders responsible for developing the new curriculum at the university in terms of the "big picture". They looked, amongst others, at why the new curriculum is essential and how it will interact with a range of factors such as regional location, community expectations, and the role of the university and workforce demands. These factors provided a greater understanding of the needs of the education of the nursing workforce for the future (See Figure 7.1 below).

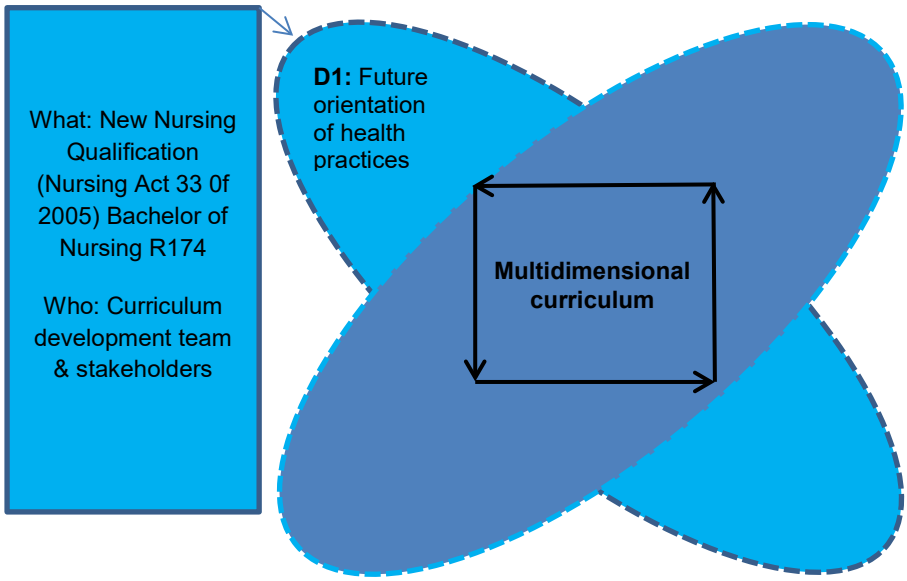


Figure 7.1: Dimension 1 of the Adapted four-dimensional curriculum development framework

Objectives two and three of this study shed further light on the future nursing workforce's specific expectations and workforce demands. These objectives fall under dimension two of the four-dimensional curriculum development framework.

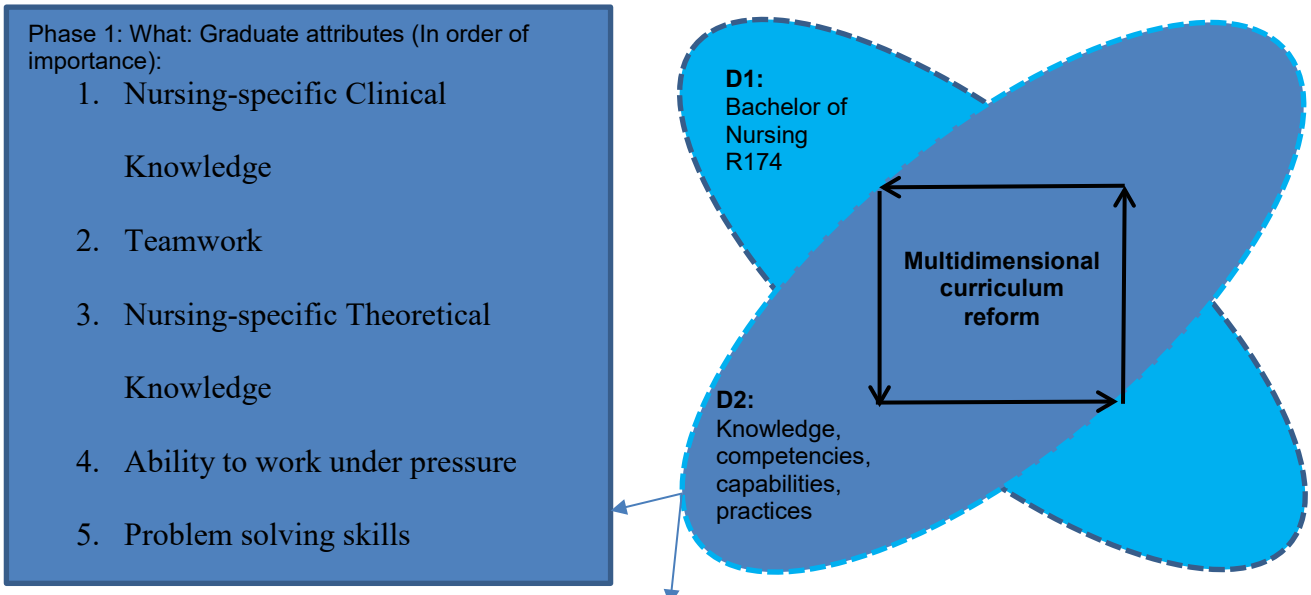
7.3 DIMENSION TWO: KNOWLEDGE, COMPETENCIES, CAPABILITIES, PRACTICES

This dimension looks at the knowledge, skills and attributes that the ideal future professional nurse should possess to be viewed as competent. In the context of this study, it requires the employers' expertise (Thistlethwaite & Vlasses, 2017) for input and consideration of specific knowledge, skills, and competencies in a particular area (Moran et al., 2015).

During data collection in phase 1, the direct supervisors (employers) of the graduates from a specific university within the Western Cape rated certain knowledge, skills and attributes of the graduates from the legacy nursing curriculum (R425) in terms of its relevance for the effective functioning in their world of work. The knowledge, skills and attributes were based on and informed by the UWC Charter of Graduate Attributes for the Twenty First Century in this study (See Figure 7.2 below, listed in order of importance as per the employers). The graduate attributes align with the new Bachelor Degree in Nursing Qualification Framework R174 (South African Nursing Council, n.d.-a).

In Chapter 4, it became evident that all the current competencies were rated as important to very important, with only 20% of the employers' rating computer literacy as unimportant. This is linked to the expected learning outcomes and specific competencies required for the new Bachelor of Nursing qualification (South African Nursing Council, n.d.-a) In contrast, 70% indicated that computer literacy is important, and 10% indicated it as very important. While this importance rating is specific to the context of the study, the SANC recommends computer literacy as assumed learning to be in place in the framework for the R174 Bachelor of Nursing programme (South African Nursing Council, n.d.-a). Furthermore, the Bachelor of Nursing framework also states that effective access, production and management of information to various audiences, including health information systems are part of the exit level outcomes. The associated assessment criteria state effective communication using multiple media and technology, including computers (South African Nursing Council, n.d.-a). Given the findings and the

framework referred to above, an argument can be made that the competencies of the legacy curriculum remain relevant and vital in the development of the new curriculum to continue producing competent graduates ready to function in the world of work.



Phase 2

Themes	Categories
Varied perceptions about graduates	Self-development and professional growth
	Professional attributes
	Interpersonal competencies
	Behaviours and attitudes
	Professional image
Initial lack of confidence and competence in certain skills	Management skills
	Interpersonal skills
	Specialised nursing skills
	Practical skills
Reasons for competency-related matters	Their minds are not open [yet]
	Personal motivation
	Social issues
	Dealing with reality

Figure 7.2: Dimension 2 of the Adapted four-dimensional curriculum development framework

The employers then rated the graduates under their direct supervision in terms of their competence based on the attributes mentioned earlier. Chapter 4 showed that most employers in this study rated the graduates as competent to proficient in almost all of the attributes, which is a clear indication that the legacy programme succeeded in producing graduates fit for the world of work based on the UWC Charter of Graduate Attributes for the Twenty First Century.

Dlamini et al. (2014), report a perceived under-preparedness of nursing graduates amongst public and nursing stakeholders. They advised the need for further empirical research into the level of competence and readiness for practice in Sub-Saharan Africa of nursing graduates. Therefore, this finding of the study, albeit contextual, contributes to the body of literature regarding the level of competence of nursing graduates in Sub-Saharan Africa.

The readiness for practice is still very contentious in literature. According to Harrison et al. (2020), attempts should be made to clarify what is understood with the concept of 'readiness for practice' in order for the assessment thereof and recommendations to be reliable, consistent and meaningfully contribute to the needs of all stakeholders involved (Harrison et al., 2020). This suggestion is strongly echoed by Mirza et al. (2019), who conducted a concept analysis on practice readiness of new nursing graduates, who, in addition to advocating for the intersectoral collaboration for further development of the concept, also advocate that the humanistic characteristics be explored in terms of relation to practice readiness. In another study in Australia, Hyun et al. (2020) found a mismatch of

perceived competency levels amongst key stakeholders. They highlighted the importance of collaboration between key stakeholders to address competency gaps, stating that supportive opportunities should be provided for new graduate nurses to fill gaps in beginner competency.

A study done in three countries in East Africa, namely Kenya, Tanzania and Uganda, made similar recommendations about the importance of strengthening collaboration between the education and practice setting to address expectations from practice, as well as further research on graduate competencies and employer expectations of graduates (Brownie et al., 2020). In South Africa, Bvumbwe and Mtshali (2018), in their integrative review regarding nursing education challenges and solutions in Sub-Saharan Africa, state that there is evidence from South Africa that indicates that the health needs and health system requirements are not being met. They claim that this is partly due to the lack of integrated planning between the health and education sectors (Bvumbwe & Mtshali, 2018). To attempt to address this, the findings of objectives two and three of this study add to the body of knowledge regarding what the expectations from the health sector are in South Africa, more specifically in the Western Cape Province.

During phase 1 of the study, employers also answered open-ended questions in the survey. They were required to indicate which theoretical and clinical constructs of the legacy curriculum required improvement. For theory, the employers advocated for basic nursing care, nursing care of patients in the acute phase of a medical condition, patient advocacy, problem-solving and applying theory to practice, and

integrating general medical conditions to Psychiatry under the general medical and surgical discipline. Under Midwifery, the employers indicated cardiotocography (CTG) interpretation and referral aspects while for CHN, they indicated handling and management of conflicts. For Paediatrics', managing the "First 1000 days", immunisation, neonatology, congenital defects, and burns needed improvement, as well as infection control and knowledge of major procedures for theatre, according to the employers. Wound care, applying cast equipment such as applying Plaster of Paris was advocated for theoretical improvement in Orthopaedics. At the same time, the employers indicated knowledge of STIs for Gynaecology and of substance abuse for Psychiatry.

In terms of clinical improvement, the following was advocated by the employers: For general medical and surgical nursing; dressings, medication and post-operative care plans, physical assessment and psychiatry as well as more clinical exposure and on-site teaching of graduates at the bedside. For Midwifery, it was obstetric emergencies, the second stage of labour skills, such as interpretation of partogram, delivery of breech and shoulder dystocia. For clinical improvement in theatre, the employers advised theatre techniques. For trauma, they highlighted suturing and triage skills, and for CHN, how to handle grievances. Some employers indicated traction for Orthopaedics and physical assessments and managing the "First 1000 days" for Paediatrics. Recommendations for clinical improvement for Gynaecology included Pap smear skills training and continuous supervision and practicals (clinical exposure), while for Psychiatry, the employers recommended further training in interviewing skills.

Interpretation of some of the recommendations done by some employers above must be made with caution. Firstly, the employers did not have access to the legacy curriculum content or the SANC qualification framework for the legacy qualification. Secondly, they made these subjective recommendations based on their personal experiences and observations of the graduates under their supervision. Therefore, it should be noted that some recommendations are part of the content of the legacy programme; some fall outside the scope of the qualification and are better suited under the speciality postgraduate diploma qualifications. An example of this would be the advised clinical improvement in theatre techniques, which forms part of the postgraduate programme in Operating Theatre Nursing (legacy programme) or the Perioperative Nursing (new postgraduate diploma programme).

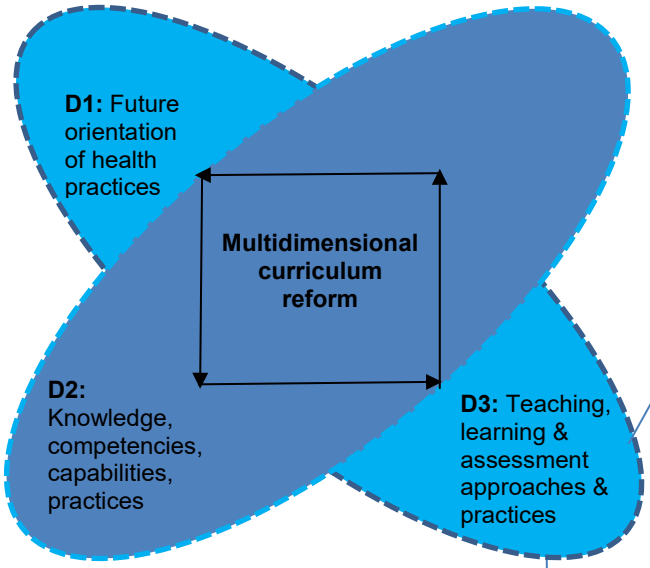
Many of the recommendations made by the employers align with the associated assessment criteria. Therefore, incorporating or strengthening these theoretical or clinical skills proposed by the employers in the new Bachelor of Nursing framework (R174) as prescribed by the SANC (South African Nursing Council, n.d.-a) would strengthen the new micro-curriculum.

7.4 DIMENSION THREE: TEACHING, LEARNING AND ASSESSMENT APPROACHES AND PRACTICES

This dimension focused on the actual learning, teaching and assessment designs and activities of the legacy curriculum; how these practices were experienced, and how they could be improved upon for the new programme. The programme graduates

were the best candidates to provide this information as they are a “product” of the legacy curriculum. Dimension three addresses the first objective of the study, which was to describe the graduates' views on firstly the quality of the undergraduate nursing programme in terms of its content, delivery and relevance to their world of work and secondly on possible gaps in year level and discipline-specific theory and clinical competencies required in their world of work.

The graduates had to rate various learning and teaching constructs regarding the legacy programme across the different year levels and disciplines, as outlined below in Figure 7.3, and indicate which graduate attributes they developed according to them. Each of the eight constructs had a number of items which graduates had to rate as either unsatisfactory, satisfactory, good and excellent in phase 1 of the study and as either not important, important and very important in phase 3 of the study.



Phase 1:

What:

Aspects of the programme:

1. Facilitation of class session by Lecturer
2. Structure and content of Programme/Modules
3. Contact with Lecturers
4. Resources
5. Clinical Learning and teaching
6. Clinical Placements (Hospitals, Clinics, etc.)
7. Clinical supervision
8. Resources for Skills Laboratories

Graduate Attributes:

1. Ability to work under pressure
2. Ability to work independently
3. Team work
4. Attention to detail
5. Verbal communication skills
6. General Computer literacy
7. Written communication skills
8. Planning and organizing skills
9. Initiative and Adaptability
10. Nursing-specific clinical knowledge
11. Nursing-specific theoretical knowledge
12. Problem solving skills

Who: Graduates

THEMES	CATEGORIES
(Mostly) positive experiences	Theory-practice integration was helpful
	Intrapersonal and interpersonal influences
	Interpersonal aspects
	Preparedness for a new role
	Programme matters
	Teaching and assessment
Challenges experienced	Being under-prepared
	Limited clinical exposure in the 1st year
	Failing "so many times'
	Ward Dynamics
	Programme matters: adaptation in the early years
	Learning and assessment
The second year is challenging	(Too much) time spent in practice impacts on theoretical outcomes
	Second year: General Nursing Science assessment
	Language issues
	Personal learning preferences
	Learning and teaching
	Programme matters: later years
	Learning and assessment strategies
	Personal factors
Potential reasons with (dis)satisfaction ratings with the nursing programme	Not the programme per se, but other reasons
	Being under pressure
	Personal predispositions
	Personal resilience
	Blaming
	In hindsight perceptions change
	Practical problematic
	Not a (first) career choice
Potential reasons why graduates who completed *cum laude* and *summa cum*	Confidence

Figure 7.3: Dimension 3 of the Adapted four-dimensional curriculum development framework

This dimension was the most important as this study aimed to inform the micro-curriculum of the new R174 programme. To meet the expected level outcomes, the curriculum development team needs to consider the particular vision of healthcare (its strengths and limitations) and the most appropriate curriculum theories, paradigms and strategies of learning and teaching. These strategies influence the design of learning and assessment activities. These findings allow the practical activities of design to be directly accountable to the broader policy and ideological questions concerning the kind of health system produced through the education of future professionals.

7.4.1 **Graduate views on the quality of undergraduate nursing programme and possible gaps within the programme**

In phase 1 and phase 3, the researcher asked graduates about eight (8) specific constructs regarding the learning and teaching activities of the undergraduate programme currently being phased out. In phase 2 of the study, the researcher further explored some of these constructs which fall under dimension three of the adapted four-dimensional curriculum development framework of Steketee et al. (2013). These eight (8) learning and teaching constructs are discussed below and illustrate how they address the first research objective of the study. The eight (8) constructs were: Facilitation of class session by lecturer; Structure and content of the programme/modules; Contact with lecturers; Resources (Teaching material); Clinical learning and teaching; Clinical placements; Clinical supervision and Resources for skills laboratories. (See Figure 7.4)

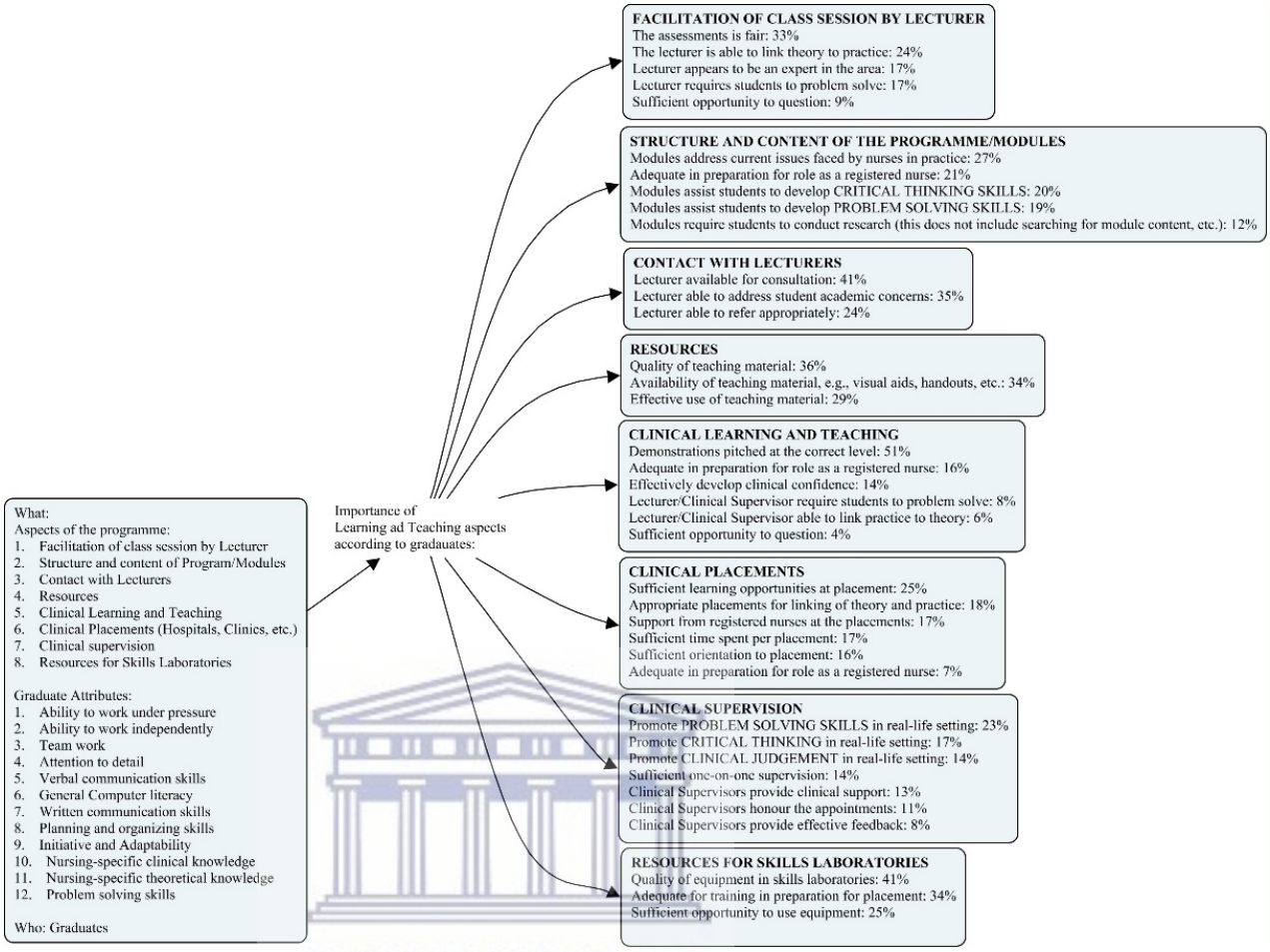


Figure 7.4: Importance of the Learning and teaching constructs as rated by the graduates

7.4.1.1 Facilitation of class session by lecturer

In phase 3 of the study, graduates identified the fairness of assessments as an essential item of learning and teaching, followed by the lecturer's ability to link theory to practice. According to the graduates, the lecturer, being an area expert and requiring students to problem solve, were equally important and ranked third in importance. They rated sufficient opportunity as the least important item under the lecturer's facilitation of the class session (See Figure 7.4). These components form

part of the nursing education and training standards (Human Resources for Health, 2009; South African Nursing Council, n.d.-b).

The results of the quantitative section in phase 1 of the study showed an increase in average graduate satisfaction with facilitation of the class session by the lecturer from year level one to four. However, a consistent anomaly was a decrease in satisfaction levels for year level one to year level two in terms of the lecturers' abilities. This lower satisfaction level correlates with the finding in which more than half of the graduates indicated that they did not fare well theoretically (57.5%) and clinically (59.5%) in general nursing science.

During phase 2 of the study, when graduates were asked to elaborate on the findings of phase 1 of the study, the researcher identified a theme "the second year is challenging". Thus, it appears that from the two years of general nursing science, the second year is the more challenging year, which explains the decrease in satisfaction as found in phase 1 of the study. In the legacy programme, the second year of the programme is content heavy and requires the application of the sciences for example, Psychology, Human Biology and Pharmacology. In addition to these science modules being offered at this year level, the programme promotion rules allow students to 'carry' a limited number of first-year modules to the second year of study, adding to the already content heavy year. The following quote encapsulates the above finding:

> "*...then the amount increases, the workload increases and that's probably what adds to not doing well…theory part you don't do that much in your first year, but when it comes to your second year, there's this chunk of information*

that you now have to take in. And it is not always... like it is a lot of information, but it is not always stuff you can grasp quickly."

Ndawo (2015) states that nursing education is characterised by a content laden curriculum with numerous challenges that do not contribute to effective learning. Furthermore, it does not lead to higher-order thinking skills, which a nursing graduate in the 21st century should possess to be functional in an ever-changing healthcare environment (Ndawo, 2015). Lecturers often revert to lecturing when there is a huge amount of content to cover, as expressed by Ndawo (2015). However, the use of more authentic constructivist learning and teaching approaches such as collaborative or team-based learning, case studies, community and problem-based learning approaches and reflective learning approaches are advised (Ndawo, 2015).

The legacy programme in this study used a case-based learning and teaching approach which included case studies and group work (University of the Western Cape, n.d.) for the nursing modules specifically. These approaches may not have been used in the teaching of science modules, which are offered by the Science Faculties which is not the 'home' faculty of nursing. Reflective learning approaches were identified as an additional learning approach to be incorporated with the existing approaches for the new curriculum.

With specific reference to the second year being perceived as challenging, the category of second-year general nursing assessments links with the construct of class facilitation. However, not all references made were nursing specific but

included the assessments of service level modules for the second year, such as pharmacology and human biology. One graduate made specific reference to human biology that used negative marking:

> "*Human Biology. I don't know if it is the negative marking because that time it was".*

Another challenge experienced with second-year assessments was the level of test questions, where graduates indicated that test questions possibly required higher-order thinking. One graduate expressed:

> *"…We reviewed the question paper. We realised that a lot of questions that were there is something that we knew but then it is all about the wording of the question or the questioning of it... For instance, answering the question. Only to find that I'm not answering the question exactly what is being asked or whether or not I didn't understand what actually they want in the question... Maybe it was because we didn't read correctly or we didn't learn to understand the question correctly…."*

Gerritsen-van Leeuwenkamp, Joosten-ten Brinke and Kester (2019) state that students' perceptions of assessment quality affect students' learning and should thus be considered in conjunction with objective measures of assessment quality. These authors indicate that assessment quality in their study refers to the quality of all the evaluation practices' elements (i.e. the assessment, test questions, assignments, criteria, score reports, procedures, feedback, programmes, and policies). Their study results showed that the students' overall perceptions were

related to their learning approaches. The students' positive overall perceptions were related to a deeper and more strategic learning approach, and their overall negative perceptions were related to a more surface learning approach (Gerritsen-Van Leeuwenkamp et al., 2019). The authors claim this finding supports the need to provide explicit information about the assessment objectives and intrinsic worth.

Linking with facilitation of the class by the lecturer, graduates also highlighted the expectations of lecturers in the second year as being challenging, in addition to the language being a barrier, as one graduate stated:

> "*I couldn't understand the lecturer. So, it was like a sort of language barrier because we couldn't understand him. And I didn't show interest and eventually, I didn't even go to class anymore."*

Graduates also highlighted differences in teaching styles as a contributing factor to the second year being perceived as being more challenging, as noted in the following comment:

> "*…difference in the lecturer's teaching style like from first year to second year, so they teach differently. Where in first year they kind of make it a bit more comfortable for you and it is a bit easy for you to understand."*

As previously mentioned, the legacy programme uses case-based learning and group work. However, due to the content laden curriculum, a possible explanation for the different teaching styles observed by students could be that lecturers revert to traditional lectures to cover the curriculum's content, as stated by Ndawo (2015).

Ndawo (2015) concludes that nurse educators need to identify essential learning content from the non-essential. The need to cover learning content should not supersede effective teaching and meaningful learning to develop higher-order thinking skills in learner nurses. Bvumbwe and Mtshali (2018) state that nurse educators need to examine what they do in and out of the classroom to remain adequate, current and relevant. The demand for innovative teaching methods that actively engage students as learners continue to grow (Bvumbwe & Mtshali, 2018). In their study, Armstrong and Rispel (2015) determined that nurse educators in many NEIs lack modern teaching skills and state that attention should be paid to nurse educator preparedness to bring about social accountability. In the context of the School in this study, it would therefore be important not only for the nurse educators to be prepared but the educators within the other faculties, within the university, that teaches the science modules to nursing students.

7.4.1.2 Structure and content of the programme/modules

For the structure and content of the programme and modules, graduates reported that it was essential to address the current issues nurses face in practice. They also indicated that modules needed to adequately prepare them for the role of a registered nurse, followed closely by it should assist students in developing critical thinking and problem-solving skills. Graduates viewed modules requiring students to research the least important item under the structure and content of modules (See Figure 7.4). This corresponds with the findings of Milton-Wildey et al. (2014), as discussed in Chapter 2, whereby graduates indicated that a focus on research is not beneficial in preparing them for the world of work.

In phase 1 of the study, graduates' average satisfaction ratings with all the components mentioned above regarding the structure and content of the modules increased from year level one to four as being satisfactory, good and excellent.

While it appears that overall the graduates were satisfied with the different components presented to them for rating and indicating that most of these are very important for the new micro-curriculum, they did, however, make some suggestions for improvement in phase 2 of the study. They specifically focused on modules being too content heavy, which is echoed by Ndawo (2015), as discussed above. Graduates in this study suggested that some module content be moved to other year levels. This was specifically year level two (General Nursing Science) and year level three (Midwifery and CHN) which were reported as being content heavy. Some graduates also advised that the pairing of modules should be reviewed in terms of content. The suggestion of pairing of related modules is illustrated by the following:

> "*Professional Practice …if we did it with research in fourth year… but that unit management* [a third year module] *thing could go well with some of the modules in fourth year especially professionalism. Psychology 111* [a second-year module] *... if they can just shift that to fourth year because we're doing Psych as well"*

According to content relevance, the School of Nursing in this study reviewed the pairing of modules to facilitate meaningful learning when the micro-curriculum was

developed. During the curriculum mapping of the micro-curriculum, all pre-requisite and co-requisite modules were considered and grouped per year level.

7.4.1.3 Contact with lecturers

Graduates indicated that it was essential for lecturers to be available for consultation. The lecturer's ability to address student academic concerns was more important than referring students appropriately for support (See Figure 7.4).

Their average satisfaction with these components in phase 1 of the study showed an increase from level one to four, with a slight decrease for year level two with regard to the lecturers' availability for consultation and their ability to address student academic concerns.

In phase 2 of the study, a possible answer to the finding of the decreased satisfaction in year level two could be found in the following statement from a graduate:

> "*...in second year, when we had to be at the clinical placement more often and then be in the classes…And you don't have enough time to study…getting in contact with the lecturer."*

One could argue that students did not have sufficient time for consultation with lecturers in the second year due to the content heavy second year, in addition, to the clinical requirements of the year level.

A study done by Dube & Mlotshwa (2018) reveals that a fair and supportive relationship between nurse educators and students fosters better academic

performance. As is the case in this study, these support services are standard at most HEIs (Dube and Mlotshwa, 2018). From the findings of all three phases of this study, graduates believe that the support services provided by lecturers are a very important component for the future curriculum.

7.4.1.4 Resources

In terms of resources, explicitly referring to teaching material, graduates indicated that the quality of teaching material was most important, followed by the availability of the material. The effective use of teaching material was least important to the graduates (See Figure 7.4).

The importance was supported with the average satisfaction scores for these components in phase 1 of the study, from the first year to the fourth year, except for the availability of teaching material and effective use of the teaching material dropping sharply for year level four. Currently, the fourth-year level, primarily Psychiatric nursing modules in the legacy programme, do not use PowerPoint presentations during class sessions. Thus, no PowerPoint presentations are made available to students online. The fourth-year students are referred to their textbooks and other online references during class sessions, which are not readily accessible to all students.

While the satisfaction scores did increase over the four year levels, during phase 2 of the study, the lack of resources was pointed out as a contributing factor for the

second year being perceived as challenging, as can be evidenced from the following:

> "*...we didn't get a lot of PowerPoint. So if you weren't in class or you wanted to refer back to something you have heard in class, you couldn't."*

When asked for specific recommendations for the new programme, some graduates stated that the online availability of resources should be improved. The following quote supported the availability of resources:

> *"...more of the information online accessible for students."*

This finding is supported by Mthimunye and Daniels (2019). As part of the educational environment, they found that digital resources had an absolute negative scoring from undergraduate nursing students (Mthimunye & Daniels, 2019). Mthimunye and Daniels (2019) advised that it is necessary to improve digital resources to ultimately promote quality learning and teaching.

Bvumbwe and Mtshali (2018) also support this finding in their review by stating that literature still reports the shortage of learning and teaching resources, leading to the inadequate productive capacity of training institutions. Resources must be given the necessary attention in order to promote the quality of the programme as a whole.

7.4.1.5 Clinical learning and teaching

Firstly, graduates reported that pitching demonstrations at the correct level were of utmost importance. Secondly, clinical learning and teaching are needed to adequately prepare students for the role as a registered nurse, followed by effectively developing clinical confidence in third place. In fourth and fifth place of importance was the clinical supervisor's requiring students to problem solve and the supervisor's ability to link practice to theory. As with the facilitation of class sessions, the graduates rated sufficient opportunity to question the least important item (See Figure 7.4).

Once again, in terms of the average satisfaction scores, there was an increase from year level one to year level four, with a decrease in satisfaction for the second-year clinical supervisors or lecturers' ability to effectively develop clinical confidence.

A possible explanation for the decreased satisfaction for the clinical supervisors' or lecturers' ability to effectively develop clinical confidence could be that the clinical learning and teaching were focused mainly on assessment. One of the graduates stated the following in phase 2 of the study:

> *"the clinical supervisors they're main focus was on the procedure that was to be done in the clinical placement; not with the other teachings like signs and symptoms and the management."*

In the legacy programme, the clinical supervisors allocated for second-year students also supervise first-year students in the clinical placement, leading to a very high

student-clinical supervisor ratio. This increased student load per supervisor may lead to clinical supervisors focusing more on required clinical formative assessments that need to be completed within a specified period, leaving little to no space for additional clinical learning and teaching.

Armstrong and Rispel (2015) point out the shortage of nurse educators as another significant challenge for nursing education in South Africa. One of their key informants alluded to the government's increased student totals without providing the necessary resources (Armstrong & Rispel, 2015). Another key informant stated that nurse educators have to deal with an increased student load. The practical training is nearly non-existent, and supervision during training is scary, which leads to limited learning for students (Armstrong & Rispel, 2015).

Bvumbwe and Mtshali (2018) advise what they call, academic practice partnerships in which NEIs and clinical practice come together and work collaboratively towards a common goal, capitalising on each other's expertise. This academic practice partnership broadens access to clinical experiences for students and is critical to their training outcomes.

7.4.1.6 Clinical placements

Graduates indicated that sufficient learning opportunities were the most crucial item under clinical placement. The next essential item was the appropriateness of the placements for linking theory and practice. Receiving support from the registered nurse at the placements and sufficient time spent per placements were equally

important in third place. These items were followed very closely by sufficient orientation to the placement. The adequacy of the clinical placement in preparation for the role as a registered nurse was least important (See Figure 7.4).

Although there was once again an increase in the average satisfaction ratings from the first to the fourth year in phase 1 of the study, the least average satisfaction rating for the components was sufficient time spent per placement. A significant proportion of graduates also found the sufficiency of learning opportunities at the placement unsatisfactory in phase 1 of the study.

The findings above can be further supported by the findings under the theme "second year is challenging", in phase 2 of the study, in which the graduate referred to the clinical placements not being in line with the number of required clinical skills, assessments and other programme requirements. The South African Nursing Council (SANC) regulation prescribed in the legacy qualification, for example, Midwifery requiring 1000 clinical hours, compared to the 3000 clinical hours divided amongst General, Psychiatric and Community Nursing Science (South African Nursing Council, 1985). The following quote serves as evidence:

> *"I didn't get the one-year Psych. I got six months maternity. I would have had more maternity than Psych or at least one year of maternity because that's what a lot of people struggle* [with]. *We had too little hours and too little skills and too little testing on maternity. Because I didn't struggle in my community... I knew it practically, but… what can you do in six months."*

The new Bachelor of Nursing programme has a decreased amount of compulsory clinical hours to be completed before registration with the South African Nursing Council at the end of the programme (South African Nursing Council, n.d.-a). The reduction in the total required clinical hours should alleviate some of the challenges raised above by the graduates in this study.

When asked for recommendations during phase 2 of the study, graduates recommended that a block system be put in place for clinical placements to address the clinical hours, as can be seen in the following:

> *"...you do Midwifery for two months and then place them for two months. So they can get experience in Midwifery. And then you are done in that."*

During the development of the new curriculum at this university, a block system was introduced for year levels three and four of the programme.

In phase 2, graduates indicated that clinical exposure to more disciplines for shorter periods is needed. Some graduates indicated that they did not get placement in all the disciplines and therefore did not have exposure to some discipline specific clinical skills. This lack of clinical exposure could explain why sufficient learning opportunities were rated as unsatisfactory in phase 1 of this study. The lack of sufficient learning opportunities is evidenced in the following quote:

> *"...because we get placed in one ward for seven weeks so you don't really get exposure to a lot of wards. So I didn't even cover Gynae or ENT or Oncology.*

I just did Paeds and Medical and Surgical with some Orthopaedic and that was it."

Motsaanaka et al., (2020) recommended the optimal use of all wards in academic hospitals for equal distribution, diverse learning opportunities and positive experience, in addition to assessment and accreditation of other healthcare institutions. While their study was done in another province, within South Africa, similar challenges are experienced in the Western Cape, as Bvumbwe and Mtshali (2018) reported.

Linking with learning opportunities, graduates recommended, in phase 2 of the study, that students needed more opportunities to take responsibility in the clinical placement and to be held accountable as evidenced by:

"...more exposure to take on that responsibility to be accountable in our junior years, where we are just floating around."

Bvumbwe and Mtshali (2018), in their integrative review, established that the majority of countries within Sub-Saharan Africa are experiencing a high demand for clinical training sites. They found that the changing learning environment, competition for learning opportunities, which became evident in this study as well, and limitations in clinical support pose challenges for professional nurses and that careful planning of students' learning experiences is imperative to ensure maximum benefits for the students (Bvumbwe & Mtshali, 2018).

The overcrowding of clinical facilities, leading to insufficient learning opportunities and lack of support from professional nurses, was also reported by Motsaanaka et al., (2020). Motsaanaka et al., (2020) conclude that student nurses need adequate exposure to clinical learning in order to develop into independent professional nurses who possess higher-order thinking skills. Some of the recommendations made by Motsaanaka, et al., (2020) include, amongst others, the formulation of communication policies and guidelines between NEIs and clinical facilities to enhance clinical learning and achieve clinical objectives. They also recommended incentives for professional nurses who engage in teaching, supervision and provision of learning opportunities for students within the clinical facilities (Motsaanaka et al., 2020).

Armstrong and Rispel (2015) also found insufficient good-quality facilities for clinical training in South Africa. A majority of their key informants pointed out that similar to the resource constraints experienced in NEIs, health facilities providing clinical training experienced a similar lack of resources which impact on the quality of the nursing graduates produced (Armstrong & Rispel, 2015). They pointed out that NEIs, based at universities, have found creative alternatives such as patient simulators.

A considerable investment was made in the procurement of patient simulators by the university in this study. The university also acquired four different skills laboratories to allow students to be exposed, even if in simulation, to a wider variety of clinical experiences. However, nurse educators would need to be trained and

continuously be developed to use these simulators to develop teaching strategies to promote clinical learning for students.

7.4.1.7 Clinical supervision

The promotion of problem-solving skills in real-life settings was the most important item under clinical supervision. Next, in terms of importance, was the promotion of critical thinking skills. Clinical judgement skills and sufficient one-on-one supervision was equally important to the graduates. These items were followed by the clinical supervisors providing clinical support and honouring appointments, with effective feedback being the least important item (See Figure 7.4).

The average graduate satisfaction rates with these components under clinical supervision, were rated fairly excellent for all components increasing from year level one to four. Graduates, therefore, seemed satisfied with what is being offered in the legacy programme regarding clinical supervision. This satisfaction was supported by one of the graduates stating the following in phase 2 of the study:

> "*...what you missed in the class and then you go to the clinical placement and you meet with your clinical supervisor. So they would like elaborate more or teach you more because sometimes you find that it is good, it is easier to memorise or to keep it in mind something that you do practically if someone teaches you theoretically and you do it at the same time".*

Although the overall findings from phase 2 of the study supported the good clinical supervision constructs, a comment made by a graduate below points to the fact that

there are still some clinical supervisors who do not provide adequate and scheduled clinical supervision.

> "*I had problems with my clinical facilitators. They weren't very reliable and the one clinical facilitator she actually didn't pitch on the few days that we had meetings to do the procedures, which was quite stressful. And I didn't get that mentorship I heard a lot of my other colleagues; the other students were getting… I kind of felt that I was having to figure things out on my own. I felt quite lost and not looked after."*

Honkavuo (2020) states that the clinical supervisor's pedagogical duty is to support nursing students' professional growth, protect and help them through difficult situations, show them the way forward and be informative. According to the author, clinical supervisors should create a good relationship, have relevant knowledge and clinical skills, detect learning needs, supervise and assess learning, and be interested in the nursing students as individuals (Honkavuo, 2020). In addition, clinical supervisors need pedagogical, didactic, theoretical and practical knowledge about supervision to increase the quality of the supervision and communicate approaches that facilitate the learning process (Honkavuo, 2020).

Supervisors need time to supervise and respond to nursing students, according to Honkavu (2020), which speaks to the challenge of the shortage of nurse educators in South Africa as pointed out by Armstrong and Rispel (2015) earlier under clinical learning and teaching.

7.4.1.8 Resources for skills laboratories

Graduates viewed the quality of equipment in the skills laboratories as the most important item, followed by the adequacy of the resources for training in preparation for clinical placement. Sufficient opportunity to use the equipment was the least important item (See Figure 7.4).

The quality of the equipment had the highest satisfaction rating, increasing from year level one to three, and slightly dropping in year level four. In the legacy programme, the Psychiatric nursing modules are offered in the fourth year, which explains why there was a slight drop in equipment quality for this year level. This is because the psychiatric skills do not require high fidelity equipment such as in Midwifery, which had the highest satisfaction score in phase 1 of the study. The adequacy of the equipment for training in preparation for placement also increased from year level one to four.

One of the graduates stated the following regarding the skills laboratory:

> "*...skills lab was also a really good way of practising. Even though the dolls* [simulators] *were a bit awkward like practising a full wash and you have to speak to someone that doesn't answer you. ...so, it gave me a place to practice like my system when I stepped into an MOU or the high care facilities. I felt like I could do it because I practised everything in that skills lab."*

The satisfaction ratings with regard to the component, sufficient opportunity to use the equipment, slightly decreased from year level one to two, and again from three to four. The slight drop from the first year to the second year could be explained by

the findings in phase 2 of the study, in which one of the themes was that the second year was perceived as challenging. Graduates indicated that the workload was very 'dense' in the second year, which allowed for little time to do extra activities in their studies. The following statement encapsulates the statement above:

> *"There were resources to practice. It is just that we did not like attend to it. ...Sometimes we felt like we needed a break just to sit with friends… not because there were not resources."*

Although the quality and adequacy of the resources in the skills laboratory were rated highly by graduates, the use of these available resources could be further improved. With the development of the new micro-curriculum, more attention should be given to the workload distribution of the students per year level to allow for opportunities for students to use the available resources outside the scheduled skills laboratory times. Students should be empowered to take responsibility for self-directed learning within the skills laboratory as well. Nurse educators will also need to be continuously developed using the high-fidelity simulators available in the skills lab and corresponding teaching strategies, as mentioned earlier under clinical learning and teaching. The recommendation above is supported by Aebersold (2018), who states that simulation is a different way to facilitate learning and proposes various educational strategies to enhance effective simulation.

7.5 DIMENSION FOUR: INSTITUTIONAL DELIVERY

According to Steketee et al. (2013), dimension 4 of the four-dimensional curriculum development framework allows systematic questioning of how and why curricula

are shaped and constrained by local institutional circumstances. The reflection on these circumstances lends a local flavour and colour that systematically loops back to dimension 1, the "big picture" of the curriculum development.

Chapter 1 contains the prior curriculum history and precedents as to why the new curriculum came about. Therefore, dimension four for this study focused on other institutional delivery items that influence how curricula can be changed or developed (see Figure 7.5).

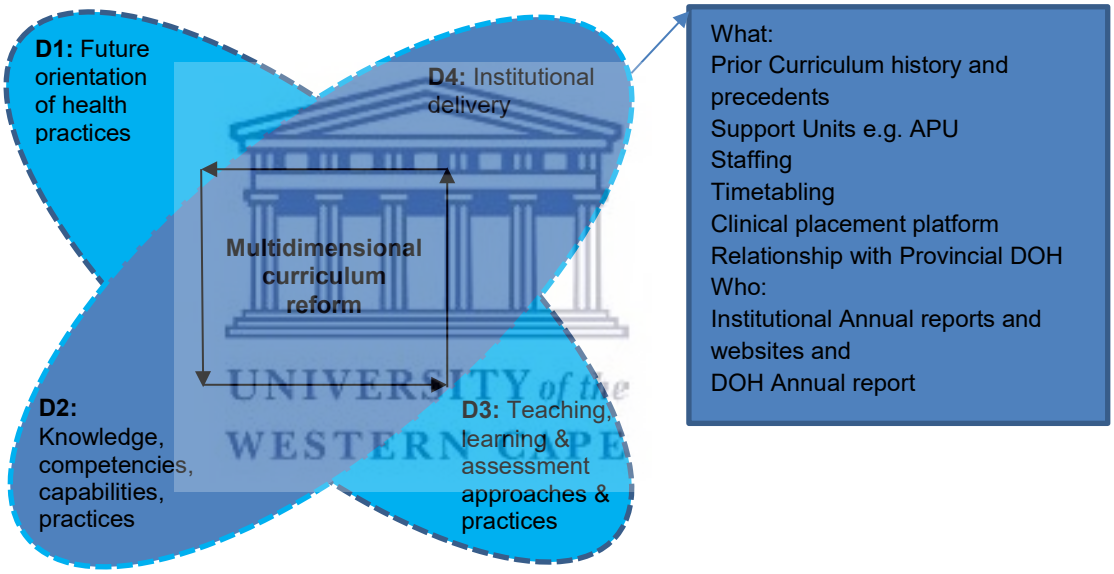


Figure 7.5: Dimension 4 of the Adapted four-dimensional curriculum development framework

The university in this study was known as a previously disadvantaged university under apartheid but has been at the forefront of South Africa's historic transformation (*History | UWC*, n.d.). Some key concerns of the university are that of access, equity and quality of higher education. This university envisions to remain a vibrant institution of high repute in pursuit of excellence in teaching, learning and research (*History | UWC*, n.d.). The university has various academic

professional support directorates under the Deputy Vice-Chancellor: Academic, to ensure this vision is achievable. These directorates include the Institutional Planning Unit which deals with quality assurance and information management, Academic Planning Unit (APU), Centre for Innovative Education and Communication Technologies (CIECT), Community Engagement Unit (CEU) and Directorate of Learning, Teaching and Student Success (DLTSS) (*Learning and Teaching | UWC*, n.d.).

Some of the core functions of the APU is to assist faculties in terms of curriculum review and curriculum transformation and renewal (Institutional Advancement, 2021). The unit also acts as a quality assurance unit which monitors alignment between the thought curriculum and the approved curriculum. The Institutional Planning Unit ensures that only accredited programmes are offered and that all programmes are fully accredited by the relevant accrediting national bodies (Institutional Advancement, 2021). The School of Nursing worked closely with the Institutional Planning Unit and APU during the development of the new curriculum, with ongoing consultation.

There are increased organisational demands due to the phasing out of the legacy programme and the phasing in of the new programme. The legacy programme will be phased out from 2020 to 2024, while the new programme was started in 2020 (School of Nursing, 2020). The change from one curriculum to another is resource-intensive and requires additional staff appointments for the teach-out period

(School of Nursing, 2020). There is thus a need for negotiation for ongoing funding for additional resources between the School and the Faculty.

Annual negotiation around timetabling remains ongoing. The School shares teaching venues with other faculty departments at the Faculty of Community and Health Sciences (CHS) campus in the Bellville Central Business District (CBD). Previously, the School of Nursing was based on the Main campus in Bellville where the challenges with venues were worse, because all faculties and departments in the university competed for teaching venues on the main campus. After the School's relocation with three other departments within the Community and Health Sciences Faculty in 2018 to the CHS campus, the sharing of venues has greatly improved.

The demand for student access to the clinical platform of the DoH and the City of Cape Town also remains an ongoing challenge, through the provincial coordinated clinical placement system (Department of Health, 2020). The Western Cape Government: Health Annual Report (2020) conveyed that in the 2019 academic year, a total of 2816 nursing students enrolled in different nursing programme that were placed in accredited health facilities of the province. As previously stated, sufficient clinical placement facilities remain a challenge. However, the Annual Report of the Western Cape Government: Health indicated that 11 Memorandum of Agreements were signed. In addition, 983 situational analyses of clinical facilities were completed to enable HEIs in the province to use these clinical facilities as clinical placement sites (Department of Health, 2020). Whether this would be enough to address the shortage in clinical placement facilities experienced

with the legacy programme remains to be seen. There was an overall reduction of the number of students accredited per NEI for the Bachelor of Nursing degree. Although this is not ideal given the general shortage of nurses, it should bring some relief on the clinical platform. The provincial coordinated clinical placement system appears to have strengthened the School and the DoH's relationship, as continuous consultations are taking place. A strong relationship or partnership is essential for successfully implementing the curriculum and the feedback from stakeholders for future reviews.

7.6 THE ADVISORY FRAMEWORK

The four-dimensional curriculum development framework (Steketee et al., 2013) was used to guide the development of the advisory framework in this study. The framework provides structure and a process to assist complex curriculum development (Moran et al., 2015). While the four-dimensional curriculum development framework was initially developed for interprofessional curriculum development in Australia, the use of the framework as a guide in this study, illustrates that it can indeed facilitate the review, reflection, learning and implementation in other curriculum developments such as in Nursing (Moran et al., 2015).

Figure 7.6 graphically depicts the antecedents to the advisory framework to inform the micro-curriculum of the new nursing programme. This figure provides an overall view of the features of the advisory framework and represents the findings in all phases of the study. The advisory framework that follows in Figure 7.7 is

therefore an interpretative representation of these features. During the conduction of this research study, a workshop was held with the academics within the School to present the findings of phase 1 of the study. The development of the micro-curriculum was about to commence and the curriculum development team could then consider the findings to guide the curriculum development. In addition, this framework will be presented to the curriculum development team to advise on the various constructs from the voices of the graduates and the employers, as stakeholders in the education of the future nurses. Although the new Bachelor of Nursing programme commenced in 2020 in the School included in the study, the micro-curriculum for year level three and four has not yet been implemented and therefore the advisory framework will still be useful to guide the micro-curriculum of these year levels as well as for the ongoing review of the programme. The study's findings and the advisory framework, albeit contextual, may also guide other NEIs, in similar contexts who have yet to start developing their curriculums for the new nursing qualification.

Currently, the SANC website indicates that there are 123 NEIs (including all sub campuses of a NEI) in South Africa accredited to offer the new nursing programmes. This includes private NEIs, public colleges and universities. and only 18 have been accredited to offer the new Bachelor of Nursing programme (South African Nursing Council, 2021a, 2021c, 2021b). Therefore, the advisory framework will be useful for these NEI during their curriculum development process.

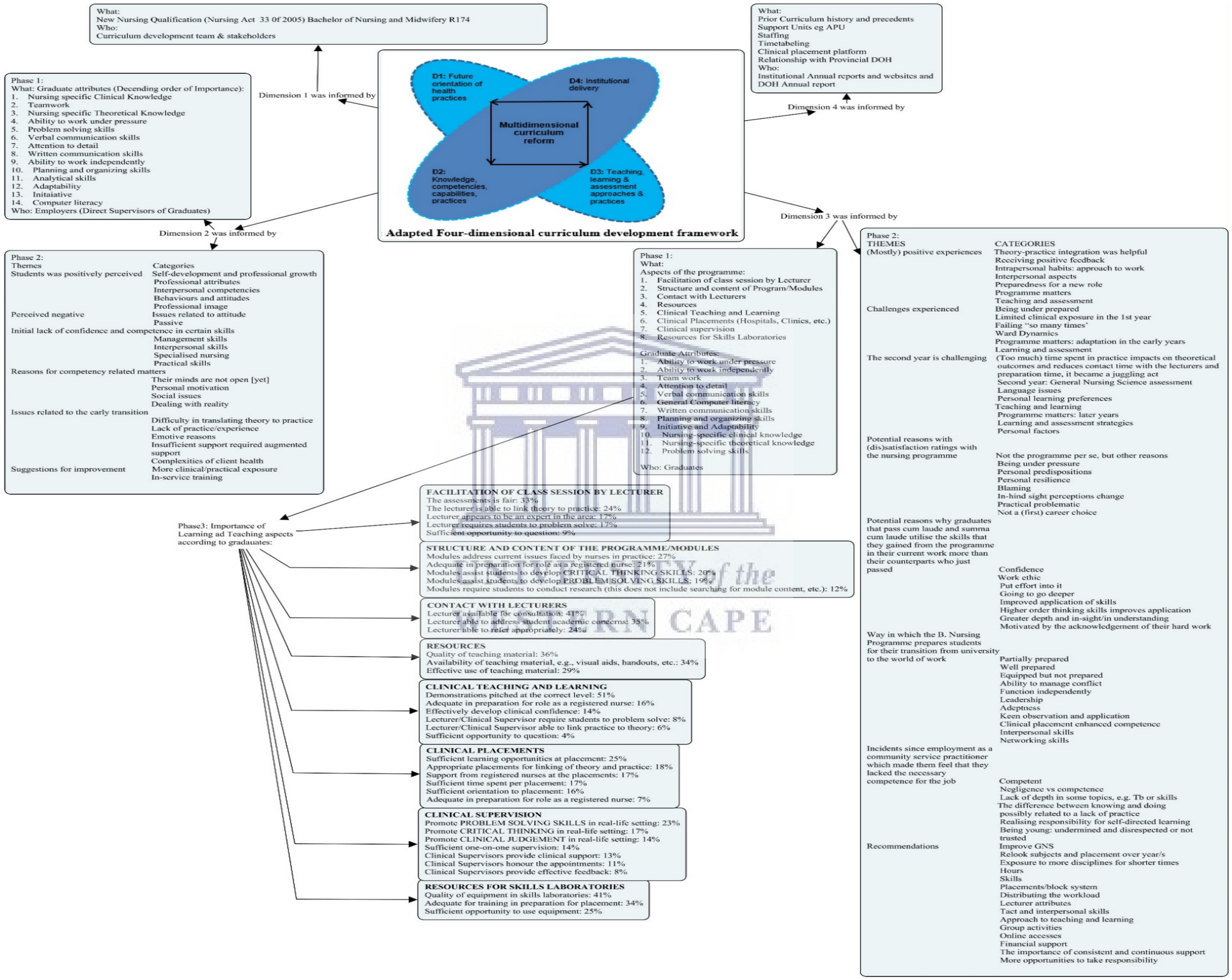


Figure 7.6: Antecedent to the Advisory Framework

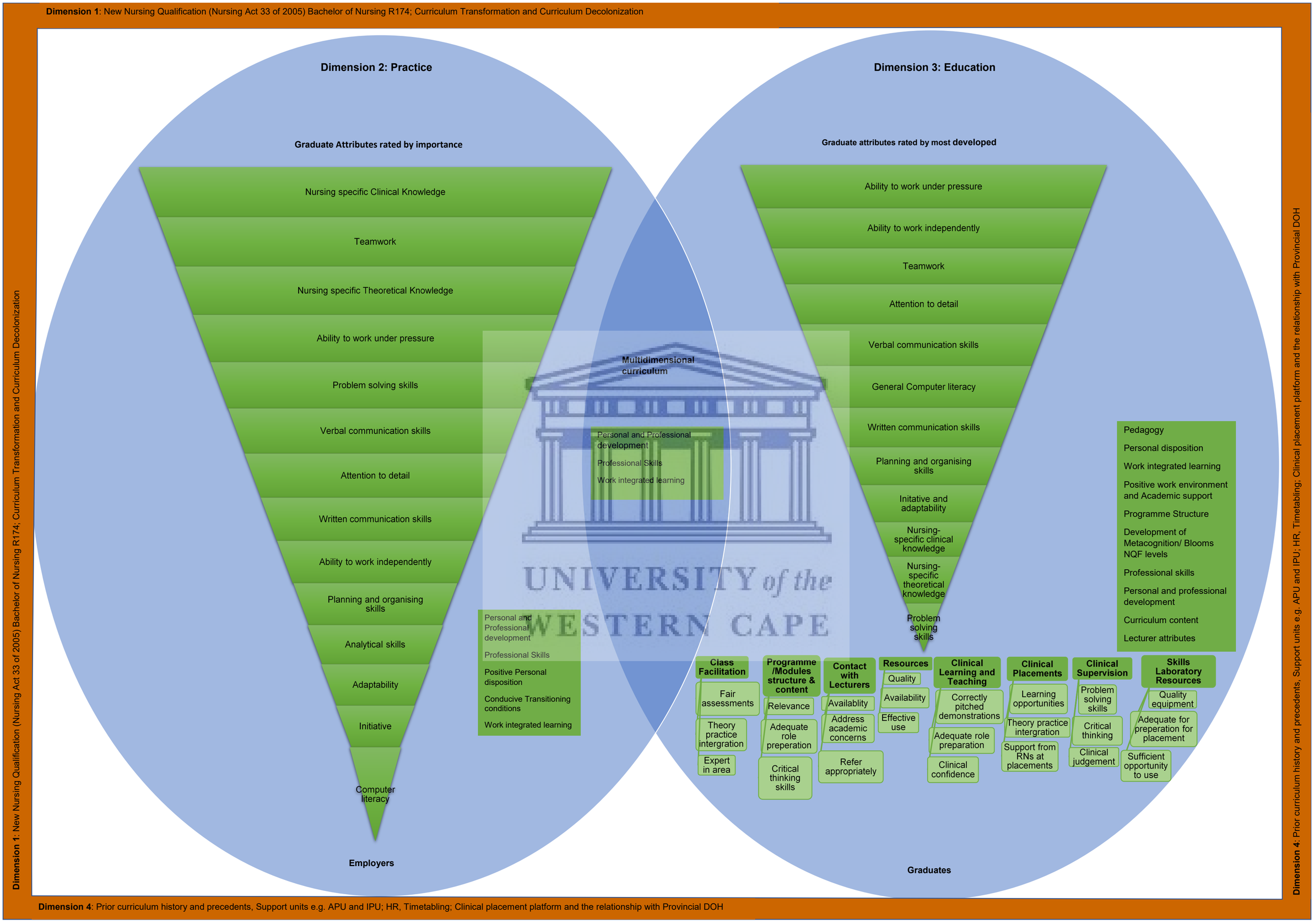


Figure 7.7:Advisory Framework for new micro-curriculum

7.6.1 **Overview of the framework**

The advisory framework (Figure 7.7) is derived from the ranking of the graduate attributes by the employers in terms of their importance for practice; the ranking of the graduate attributes by the graduate in terms of those they have most developed; the concluding statements of the interviews conducted with employers and graduates based on the significant findings from the quantitative phase; and the first three most important components of each of the eight (8) programme constructs in the conjoint analysis.

7.6.2 **Context of the framework**

This study was conducted within the context of one Higher Education Institution in the Western Cape that offers the Bachelor of Nursing programme. However, the context for implementation of this framework can be extended to include all Nursing Education Institutions in South Africa, that are accredited by the South African Nursing council to offer the Bachelor of Nursing programme according to Regulation 174.

7.6.3 **Assumptions of the framework**

The following assumptions apply:

- Multi-lateral and bi-lateral agreements exist between education and practice sectors for the training of students in the Bachelor of Nursing programme.

- That the dual role of education and practice in nursing education is grounded in the multi-lateral and bi-lateral agreements.
- That the support structures and resources for quality assurance, implementation and support are in place for the offering of the Bachelor of Nursing programme.
- That the curriculum is embedded within the institution's ideology, mission and vision.

7.6.4 **Structure of the framework**

The brown rectangular border of the framework represents Dimension 1 which includes the legislative frameworks which form the basis for conducting this study; and dimension 4 which is the context in which the curriculum is located and the structures that quality assure and support its development and implementation. As mentioned earlier, these 2 dimensions were not explored in this study.

The two blue circles represent dimensions 2 and 3 which are practice and education, respectively. Embedded within these dimensions are inverted green pyramids which represents the participants ranking of the attributes they suggest are important for the programme. The intersection of these two dimensions illustrates the multidimensional curriculum which is core to the findings of this study.

The green rectangle to the right of the inverted pyramids in dimensions 2 and 3 represents the concepts extracted from the concluding statements of the graduate and employer qualitative findings. The text boxes at the bottom of dimension 3

represents the 8 constructs of the curriculum of the Bachelor of Nursing programme and the top three graduate ranked attributes of each construct.

7.6.5 **Evaluation of the framework**

The following critical areas of the framework, including clarity, simplicity, generality, accessibility and importance were confirmed by the study supervisor and are evidenced in the description and discussion of the framework. Full-scale evaluation of the implementation of the framework is recommended as an avenue for future research

7.7 SUMMARY

This chapter discussed the findings of all three phases of this study, and how the findings correlated with each other across the phases of the research and the existing literature. It brings together the features for the development of the advisory framework and concludes with presenting the advisory framework to inform micro-curriculum development. The next chapter includes the conclusion, relevance and limitations of the study, and recommendations for future research.

CHAPTER 8

SUMMARY, RELEVANCE, LIMITATIONS AND RECOMMENDATIONS

8.1 INTRODUCTION

The previous chapter concluded with the presentation of the advisory framework for the development of the micro-curriculum of the new B Nursing programme at a university in the Western Cape. This chapter summarises the study, presents the relevance and limitations, and makes recommendations based on the study.

8.2 SUMMARY OF THE STUDY

The aim of this study was to trace the 2016 nursing graduates from a university in the Western Cape to ascertain whether the legacy Bachelor of Nursing programme adequately prepared them for the world of work, and to identify areas for improvement of the new Bachelor Nursing programme. In addition, their employers who were the graduates' direct supervisors during their community service year were included as participants, and provided information on whether the graduates produced by the legacy programme were adequately prepared for the world of work. The supervisors also identified specific competencies for improvement of the new nursing Bachelor of Nursing programme. The findings from both the graduates and their employers were used to develop an advisory framework for the development of the micro-curriculum for the new Bachelor of Nursing programme.

The objectives for this study were as follows, as presented in Chapter 1:

1.5.1 To describe the graduates' views on:

1.5.1.1 The quality of the undergraduate nursing programme in terms of its content, delivery and relevance to their world of work.

1.5.1.2 Possible gaps in year level and discipline-specific theory and clinical competencies required in their world of work.

1.5.2 To describe the employers' views regarding the attributes, competencies and competence of the graduates in their employ and areas for improvement in specific disciplines.

1.5.3 To explore and describe graduates and employers' views on their responses that were predominantly positive or negative in objectives 1. and 2 and their views regarding specific competencies, which would improve the quality and relevance of the new Bachelor of Nursing programme.

1.5.4 To describe the graduate's ranking of the importance of each component of the Bachelor of Nursing programme.

1.5.5 To develop and describe a framework, guided by the above objectives, which will be used to inform the micro-curriculum of the new Bachelor of Nursing programme.

This study used an explanatory sequential mixed methods research design to meet the objectives as stated above. Phase 1 of the study was quantitative and objectives 1 and 2 were met in terms of describing the graduate and employers' views. Phase 2 of the study was qualitative and allowed for objective 3 to be met, which was to

explore and describe the significant findings of phase 1. The significant findings of phase 1 of the study therefore informed phase 2. In phase 3, graduates rated the importance of the different constructs of the legacy programme, by means of conjoint analysis. While conjoint analysis has mainly been used in market research, it has also previously been used in healthcare and educational research studies because it can predict user preferences in the design and, in the context of this study, to evaluate and inform the development of new curricula in education (Mele, 2008).

The findings of all three phases were discussed in Chapter 7, allowing for triangulation of the data collected and the development of the advisory framework in order to develop the micro-curriculum of the new Bachelor of Nursing programme.

The development of the framework did not follow a conventional framework development process, however, the four-dimensional curriculum development framework of Steketee et al. (2013), also referred to as 4DF (Steketee et al., 2014) served as the conceptual framework for this study, and was employed as a guide to develop the framework. The study's objectives allowed for dimension 2 and 3 of the four-dimensional framework to be presented in the advisory framework. Although dimension 1 and 4 form the basis of the four-dimensional curriculum development framework as presented by Steketee et al. (2013), it did not form part of the research. The study also did not aim to evaluate the advisory framework. However, an evaluation can be done as a postdoctoral study, if the framework is adopted at the university included in the study.

This study determined that overall that graduates and the employers of these graduates of the legacy Bachelor of Nursing programme at the university where the study was conducted were satisfied that the programme prepared them for the world of work and identified areas within the curriculum that need strengthening.

8.3 RELEVANCE OF THE STUDY

The study heeded both the international and national call for programme and curriculum review for relevance as discussed in Chapter 1. It provided information that serves as a basis for the development of the micro-curriculum and ultimately the improvement of the nursing programme offered at university level. The findings of the study can assist in aligning the programme outcomes of the new nursing programme to the competencies required for professional nurses in practices thereby ensuring the relevance of education to practice. It also has potential for improving the competence and confidence of graduates for entry into the world of work and ultimately to improved patient health outcomes and the country's aim for improved health care for all.

While the study was ongoing, the development of the micro-curriculum at the university in this study had already commenced. However, it remains valid as the micro-curriculum for year levels three and four at this institution must still be completed. The findings of phase 1 of the study was presented to the curriculum development team at this university at a workshop to inform the development of the micro-curriculum.

In addition, as mentioned in Chapter 7, there are 123 accredited NEIs, of which only 18 universities have thus far been accredited to offer the new Bachelor of Nursing programme (R174). Therefore, the study remains relevant and the advisory framework can be used by other institutions across South Africa that still need to design and develop their new Bachelor of Nursing programme for accreditation by the SANC and the CHE. In addition, this framework lends itself as being relevant in the ongoing review of the micro-curriculum in general.

The study, although contextual, also adds to the body of knowledge nationally in terms of the level of competence of nursing graduates, which according to Dlamini et al. (2014). is still lacking in Sub-Sharan Africa.

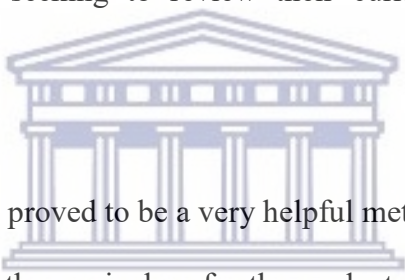
At the university included in this study, there was no existing evidence from the graduates or the employers of the legacy programme on whether the graduates were adequately prepared for the world of work. The study is therefore a first of its kind in this particular context and therefore enables the incorporation of lessons learnt based on the views of graduates and their employers regarding the strengths and weaknesses of the legacy programme. It could also serve as an advisory framework in planning the final-year level programme of the new micro-curriculum and programme reviews and amendments in future.

In an attempt to address the lack of integrated planning between the health and education sectors, as reported by Bvumbwe and Mtshali (2018), the study adds to the body of knowledge regarding the health sector expectations for the development

of human resources for health, specifically related to the preparation of professional nurses in the Western Cape.

8.4 LIMITATIONS

The study was conducted at one public university in the Western Cape and therefore is contextual and cannot be generalised to other NEIs, whether public or private. The findings of the study may still be relevant and generalisable, or transferable to similar contexts. Furthermore, the methodology used in the study may serve as a guide for other NEIs seeking to review their curricula to identify areas of improvement.



While conjoint analysis proved to be a very helpful method in identifying the most important constructs of the curriculum for the graduates, it was not considered for the employers of the graduates. The employers were only required to rate the importance of the graduate attributes by means of a Likert scale during phase 1 of the study, which did not give clear indication of the degree to which each of these graduate attributes is valued in the world of work. The researcher sought to keep the questionnaire short (phase 1) and the data collection from the employers to a minimum (phases 1 and 2) in order to avoid undue impact on the work responsibilities of the employers, and respondent fatigue. In retrospect, the researcher realised the value of using conjoint analysis instead of the Likert-type scale to determine the importance of the graduate attributes as rated by the employers. In other words, when confronted with different combinations of the graduate attributes, which closely reflect reality, but where only some could be

equally important or instilled/developed, a true reflection of the most preferred graduate attributes, by the employers, would have surfaced by using conjoint analysis.

A possible limitation of recall bias on the part of the graduates exists, as graduates were asked to rate their experience with the programme from their first year of study up to the fourth year, after six months of having completed the programme. However, one of the fundamental requirements of graduate tracer studies is that the graduate needed at least some exposure to the world of work in order to be able to evaluate whether the programme adequately prepared them for the world of work. This is called the transition period by Schomburg (2014). Graduate tracer studies are usually conducted one to two years after graduation (Schomburg, 2014; Tanhueco-Tumapon, 2016) and remains one of the key methodological challenges of graduate tracer studies (Schomburg, 2014).

Another possible limitation could be that the graduates interviewed during the qualitative phase, could not necessarily answer questions based on demographics that was found to be statistically significant in the quantitative phase. For example, graduates who did not fail a year could not necessarily provide reasons as to why significant findings were found between those who failed and certain programme constructs. While the researcher can attest that at least one graduate who was interviewed matched each of the different categories of the significant findings, it might not be a true reflection of the graduate population as a whole. A way to

overcome this would have been to implement snowballing sampling during the qualitative phase, in order to get a better representation of graduates.

8.5 RECOMMENDATIONS

8.5.1 **Recommendations for education**

- Nurse educators should pay attention to the development and assessment of students' graduate attributes, especially its application in clinical practice.
- Findings and advisory framework should be used to guide other NEIs, in similar contexts, to enable them to develop their curricula for the new nursing qualification.
- Nurse educators should attend clinical practice workshops, webinars and seminars to remain updated about developments in nursing practice. These insights can be incorporated into the curriculum to ensure the continued relevance of the programme to clinical nursing practice.
- Quarterly meetings with staff from education and practice should be held to discuss student progress. This provides opportunity for formative evaluation of the programme and timely remediation and adjustments to the curriculum where needed.
- More rigorous attention should be paid by nurse educators to the reports submitted by staff in practice on individual students' performance in practice.

- Conjoint analysis proves to be a very useful method to determine what the users of a service prefer or value most, and can be used to improve these services. In the study, this would refer to which specific constructs of the programme for the graduates and graduate attributes for the employers are the most preferred in terms of the legacy programme, and can thus be improved upon in the new programme.

8.5.2 **Recommendations for practice**

- Development of a comprehensive planning partnership between the curriculum development team and various stakeholders when developing the curriculum of a programme. This will ensure that the programme is relevant to practice.
- There is a need to develop a comprehensive, user-friendly, student placement report through which staff in practice can report, in general, on students' clinical development needs. Where overall gaps in students' preparation are reported, the unit manager can be tasked with generating these reports on a quarterly or bi-annually basis. These reports could also inform curriculum improvements.
- More rigorous attention should be given to the writing of students' individual placement progress reports to ensure that it could be used to improve the preparation of the students for the world of work.

8.5.3 **Recommendations for future research**

- Graduate tracer studies have proven to be an effective means of garnering the views and input from graduates (product) of the programme as well as employers (users of the product) to review and improve curricula.
- More research by means of graduate tracer studies would be beneficial, in order to ascertain whether the new Bachelor of Nursing programme remains relevant to the world of work.
- Studies conducted per year level might be more manageable and timely in its feedback, rather than cohort studies.
- The use of conjoint analysis in this study was very basic and was based on the constructs included in phase 1 of the study. To further improve the use in conjoint analysis in educational research, the researcher proposes that focus groups be done before the construction of the conjoint analysis study. Focus groups could identify the constructs valued by the graduates to be utilised in developing the conjoint analysis survey, which would provide a more accurate picture of the constructs most preferred or valued by graduates.
- The use of conjoint analysis to gain insight into what employers' value most of the programme is also recommended for future research.
- Evaluation of the implementation of this proposed framework is recommended for future research.

8.6 CONCLUSION

The chapter summarised the study and highlighted the relevance of this study for the institution included in the study as well as for other NEIs nationally. It furthermore highlights limitations of the study and provides recommendations for education, practice and future research.

The overall finding of the study concluded that the legacy programme seemed to have adequately prepared the graduates for the world of work, albeit from the perspectives of the graduates and their employers. This finding contradicts various studies that point out that employers often complain that university programmes do not adequately prepare graduates for the world of work as discussed in Chapter 2, and therefore contributes to the body of knowledge on this topic. Furthermore, areas for improvement within the curriculum were identified and could be used to inform the development of the micro-curriculum of the new Bachelor of Nursing programme at this specific university.

The multidimensional curriculum reform, as found in this study and depicted in Chapter 7, highlights three areas of reform namely:

- Personal and professional development
- Professional skills
- Work integrated learning

Core to the curriculum reform in the new Bachelor of Nursing programme are the three areas of the multidimensional curriculum as presented in Chapter 7. The

curriculum therefore should ensure that the development of these three areas are intentional and met by the new Bachelor of Nursing programme.

Overall, this report illustrates that the study objectives have been met, and highlights new avenues for further research in this area.

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APPENDIX 1: GRADUATE INFORMATION SHEET

Project Title: Advisory framework to inform the development of a micro-curriculum for a new Bachelor of Nursing degree programme offered at a University in the Western Cape

This is a research project being conducted by Mrs Lindy van der Berg at the University of the Western Cape. We are inviting you to participate in this research project because you graduated from the School of Nursing at the Western Cape in 2015. The purpose of this research project is to establish where graduates are working and whether the undergraduate programme adequately prepared them for the expectations of their current jobs. It also wants to establish whether they pursued further study.

You will be asked to complete an online questionnaire about your educational experiences of, and the relevance of the Bachelor of Nursing programme at the University of the Western Cape to your current work. This questionnaire will take about 30 minutes to complete. Based on the analysis of this questionnaire, you might need to take part in an interview for further clarification. This interview will be conducted at a place and time convenient for you. The interview, should you be selected, is expected to last 45 to 60 minutes. After the interview, should you be selected, you will need to complete an additional questionnaire to give your preference regarding attributes that needs to be included in the new micro-curriculum. The final questionnaire will be completed online. The last questionnaire should take 15 minutes to complete. Your participation in this study will therefore be intermittent over three years.

The researchers undertake to protect your identity and the nature of your contribution. To ensure your anonymity, through the use of an identification key, the researcher will be able to link your survey to your identity; and only the researcher will have access to the identification key. To ensure your confidentiality, data collected will be kept in locked filing cabinets and password-protected computer files. If we write a report or article about this research project, your identity will be protected.

There may be some risks from participating in this research study. All human interactions and talking about self or others carry some amount of risks. We will nevertheless minimise such risks and act promptly to assist you if you experience any discomfort, psychological or otherwise during the process of your participation in this study. Where necessary, an appropriate referral will be made to a suitable professional for further assistance or intervention.

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This research is not designed to help you personally, but the results may help the investigator learn more about the strengths and weaknesses of the current Bachelor of Nursing Curriculum offered at the University of the Western Cape. We hope that, in the future, other people might benefit from this study through improved understanding of what factors and attributes are important for incorporation into the curriculum in order to prepare quality graduates fit for the world of work. Anticipated benefits for society would be improved health care for all, by improving the quality and employability of graduates.

Your participation in this research is completely voluntary. You may choose not to take part at all. If you decide to participate in this research, you may stop participating at any time. If you decide not to participate in this study or if you stop participating at any time, you will not be penalized or lose any benefits to which you otherwise qualify.

This research is being conducted by Mrs Lindy van der Berg from the School of Nursing at the University of the Western Cape. If you have any questions about the research study itself, please contact Lindy van der Berg at: University of the Western Cape, Private Bag X17, Bellville, 7535, telephone number 072 236 8398, e-mail lsvanderberg@gmail.com .
Should you have any questions regarding this study and your rights as a research participant or if you wish to report any problems you have experienced related to the study, please contact:

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This research has been approved by the University of the Western Cape's Senate Research Committee. (REFERENCE NUMBER: *15/6/20*)

APPENDIX 2: GRADUATE SURVEY

GRADUATE-SURVEY-2016

UNIVERSITY of the WESTERN CAPE

1. Information regarding the study

1. Please provide us with your most up to date contact information.	
Please enter your answer on each row (* Required)	
Name and Surname:*	
Health Facility where you did Community Service:*	
Landline Telephone number:(Enter 0000 if no number.)	
Mobile/ Cell no:*	
Alternate Telephone no (Enter 0000 if no number.):	
Email Address:*	

Last Supervisor/Mentor for Community Service Name & Surname:*	
Last Ward worked as Community Service Nurse:*	
Email Address of last supervisor/mentor:	
Phone Number of last supervisor/ mentor	

*2. Do you want the Pledge Ceremony photos?	
Please choose (tick) only one answer from below list (Single Choice)	
◯	No, I'm not interested.
◯	Yes, I would like a CD.
◯	Yes, I would like it shared with me on Google drive.

2. BIOGRAPHICAL INFORMATION

3. Gender?	
Please choose (tick) only one answer from below list (Single Choice)	
◯	Male

◯	Female
4. How old are you in years?	
Please enter your answer below	
5. What is your marital status? (Tick only one)	
Please choose (tick) only one answer from below list (Single Choice)	
◯	Single
◯	Married / Live in partner
◯	Divorced / Separated
◯	Widowed
6. What is your religion? (Tick only one)	
Please choose (tick) only one answer from below list (Single Choice)	
◯	Christian
◯	Islam
◯	Jewish
Other (please specify)	

7. What is the South African province /country of your high school origin? (Tick only one)	
Please choose (tick) only one answer from below list (Single Choice)	
◯	Northern Cape
◯	Western Cape
◯	Eastern Cape
◯	Kwa-Zulu Natal
◯	Gauteng
◯	Mpumlanga
◯	Limpopo
◯	North West
◯	Free State
Country outside of South Africa. (please specify)	

3. EDUCATIONAL BACKGROUND

8. Was the nursing degree your first tertiary qualification?	
Please choose (tick) only one answer from below list (Single Choice)	
◯	Yes
◯	No

4. EDUCATIONAL BACKGROUND continue

9. If No, specify other qualification(s) obtained.	
Please enter your answer on each row below	
Name of Diploma AND Year obtained	
Name of Degree AND Year Obtained	

10. If you completed the question above, indicate how many years were you employed in the area of the stated qualification.
Please enter your answer below

5. EDUCATIONAL BACKGROUND continue

11. On application, was the nursing degree your first choice of study?	
Please choose (tick) only one answer from below list (Single Choice)	
◯	Yes
◯	No

6. EDUCATIONAL BACKGROUND continue

12. If No, specify which program was your first choice?	
Please enter your answer on each row below	
Name of Diploma specify	
Name of Degree specify	

7. EDUCATIONAL BACKGROUND continue

13. In which year did you start your nursing degree?
Please enter your answer below

8. EDUCATIONAL BACKGROUND continue

14. Did you have a break in study?	
Please choose (tick) only one answer from below list (Single Choice)	
◯	Yes
◯	No

9. EDUCATIONAL BACKGROUND continue

15. If yes, how many years?
Please enter your answer below

10. EDUCATIONAL BACKGROUND continue

16. Did you repeat a year?	
Please choose (tick) only one answer from below list (Single Choice)	
◯	Yes
◯	No

11. EDUCATIONAL BACKGROUND continue

17. If yes, which year level?
Please enter your answer below

12. EDUCATIONAL BACKGROUND continue

18. Were you registered in the Foundation 5 year program?	
Please choose (tick) only one answer from below list (Single Choice)	
◯	Yes
◯	No
19. When you completed the nursing degree, did you graduate with (Tick only one)	
Please choose (tick) only one answer from below list (Single Choice)	
◯	Pass
◯	Cum Laude
◯	Summa Cum Laude
20. Which discipline of the program did you enjoy the most? (Tick only one)	
Please choose (tick) only one answer from below list (Single Choice)	
◯	General Nursing
◯	Community Health Nursing
◯	Psychiatric Nursing
◯	Midwifery

21. In which discipline of the program did you fare the best and in which discipline did you not fare well Theoretically and Clinically? (Not necessarily your total mark for the discipline) (TICK ONLY ONE FOR FARED BEST AND ONE FOR DID NOT FARE WELL)	
Please choose (tick) only one answer on each row (Multiple Choices Menu)	
	Discipline
Fared best (Theoretically)	☐ General Nursing ☐ Community Health Nursing ☐ Psychiatric Nursing ☐ Midwifery
Did not fare well (Theoretically)	☐ General Nursing ☐ Community Health Nursing ☐ Psychiatric Nursing ☐ Midwifery
Fared best (Clinically)	☐ General Nursing ☐ Community Health Nursing ☐ Psychiatric Nursing ☐ Midwifery

21. In which discipline of the program did you fare the best and in which discipline did you not fare well Theoretically and Clinically? (Not necessarily your total mark for the discipline) (TICK ONLY ONE FOR FARED BEST AND ONE FOR DID NOT FARE WELL)

Did not fare well (Clinically)	☐ General Nursing ☐ Community Health Nursing ☐ Psychiatric Nursing ☐ Midwifery

22. Did you receive financial support in the form of a bursary or scholarship?	
Please choose (tick) only one answer from below list (Single Choice)	
◯	Yes
◯	No
23. Where did you live while studying? (Tick only one)	
Please choose (tick) only one answer from below list (Single Choice)	
◯	Home
◯	University residence
◯	Family
Other (please specify)	

13. EDUCATIONAL BACKGROUND (CONTINUE)

24. FACILITATION OF CLASS SESSION BY LECTURER					
Please choose (tick) only one answer on each row (Multiple Choices Menu)					
	Year Level 1	Year Level 2	Year Level 3 Community Health Nursing	Year Level 3 Midwifery	Year Level 4
Lecturer able to link theory to practice	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent
Lecturer appeared to be an expert in the area	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent
Sufficient opportunity to question	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent

Lecturer required students to problem solve	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent
Were the assessments fair?	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent
25. STRUCTURE AND CONTENT OF PROGRAM/ MODULES					
Please choose (tick) only one answer on each row (Multiple Choices Menu)					
	Year Level 1	Year Level 2	Year Level 3 Community Health Nursing	Year Level 3 Midwifery	Year Level 4
Modules required students to conduct research (this does not include	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent

searching for module content /information)					

25. STRUCTURE AND CONTENT OF PROGRAM/ MODULES					
Modules assisted students to develop critical thinking skills	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent
Module assisted students to develop problem solving skills	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent

Modules addressed current issues faced by nurses in practice	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent
Adequate in preparation for role as a registered nurse	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent
26. CONTACT WITH LECTURERS					
Please choose (tick) only one answer on each row (Multiple Choices Menu)					
	Year Level 1	Year Level 2	Year Level 3 Community Health Nursing	Year Level 3 Midwifery	Year Level 4
Lecturers available for consultation	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent

Lecturer's ability to address student academic concerns	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent
Lecturer able to refer appropriately	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent
27. RESOURCES					
Please choose (tick) only one answer on each row (Multiple Choices Menu)					
	Year Level 1	Year Level 2	Year Level 3 Community Health Nursing	Year Level 3 Midwifery	Year Level 4
Availability of teaching material e.g. visual aids, handouts etc.	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent

Quality of teaching material	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent
Effective use of teaching material	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent
Lectures pitched at the correct level	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent
Lecturer adequately prepared for contact sessions	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent
28. CLINICAL TEACHING AND LEARNING					

Please choose (tick) only one answer on each row (Multiple Choices Menu)					
	Year Level 1	Year Level 2	Year Level 3 Community Health Nursing	Year Level 3 Midwifery	Year Level 4
Lecturer /Clinical Supervisor able to link practice to theory	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent
Sufficient opportunity to question	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent

28. CLINICAL TEACHING AND LEARNING

Lecturer /Clinical Supervisor required students to problem solve	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent
Effectively developed clinical confidence	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent
Demonstrations pitched at the correct level	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent
Adequate in preparation for role as a registered nurse	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent
29. CLINICAL PLACEMENTS (HOSPITALS, CLINICS, ETC.)					

Please choose (tick) only one answer on each row (Multiple Choices Menu)					
	Year Level 1	Year Level 2	Year Level 3 Community Health Nursing	Year Level 3 Midwifery	Year Level 4
Appropriate placements for linking of theory and practice	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent
Sufficient time spent per placement	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent
Sufficient orientation to placement	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent
Sufficient learning opportunities at placement	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent

Adequate in preparation for role as a registered nurse	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent
30. CLINICAL SUPERVISION					
Please choose (tick) only one answer on each row (Multiple Choices Menu)					
	Year Level 1	Year Level 2	Year Level 3 Community Health Nursing	Year Level 3 Midwifery	Year Level 4
Clinical Supervisors honoured the appointments	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent
Clinical Supervisors provided clinical support	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent

Sufficient one-on-one supervision	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent
Clinical Supervisors provided effective feedback	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent
Promote clinical judgment in real life setting	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent
Promote critical thinking in real life setting	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent
Promote problem solving skills in real life setting	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent

30. CLINICAL SUPERVISION					
Support from registered nurses at the placements	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent
Demonstrations pitched at the correct level	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent

31. RESOURCES FOR SKILLS LABORATORIES
Please choose (tick) only one answer on each row (Multiple Choices Menu)

	Year Level 1	Year Level 2	Year Level 3 Community Health Nursing	Year Level 3 Midwifery	Year Level 4
Quality of equipment in skills laboratories	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent
Adequate for training in preparation for placement	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent
Sufficient opportunity to use equipment	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent	▢ Unsatisfactory ▢ Satisfactory ▢ Good ▢ Excellent

14. CURRENT UTILIZATION OF SKILLS ACQUIRED FROM UNDERGRADUATE NURSING PROGRAMME

32. Rate your attributes / competencies, which you acquired during your undergraduate nursing programme.

Please choose (tick) only one answer on each row (Matrix of Single Choice)						
	Non-existent	Pre-existent	Unsatisfactory	Satisfactory	Good	Excellent
Nursing-specific theoretical knowledge	▢	▢	▢	▢	▢	▢
Nursing-specific clinical knowledge	▢	▢	▢	▢	▢	▢
General Computer literacy	▢	▢	▢	▢	▢	▢
Problem solving skills	▢	▢	▢	▢	▢	▢
Written communication skills	▢	▢	▢	▢	▢	▢
Verbal communication skills	▢	▢	▢	▢	▢	▢
Initiative and Adaptability	▢	▢	▢	▢	▢	▢
Ability to work under pressure	▢	▢	▢	▢	▢	▢

Teamwork	▢	▢	▢	▢	▢	▢
Ability to work independently	▢	▢	▢	▢	▢	▢
Planning and organizing skills	▢	▢	▢	▢	▢	▢
Attention to detail	▢	▢	▢	▢	▢	▢

33. Rate how often you use the following skills in your current employment.

Please choose (tick) only one answer on each row (Matrix of Single Choice)

	Never	Very Rarely	Rarely	Occasionally	Frequently	Very Frequently
I base my practice on current evidence from nursing science and other sciences and humanities.	▢	▢	▢	▢	▢	▢

33. Rate how often you use the following skills in your current employment.

I collect information on client status from a variety of sources using assessment skills, including observation, communication, physical assessment and a review of pertinent clinical data.	▢	▢	▢	▢	▢	▢
I understand how to use the Internet, library search tools, and document searching capabilities to locate relevant information to gain knowledge for work related tasks and decision making.	▢	▢	▢	▢	▢	▢
I analyse information and make recommendations.	▢	▢	▢	▢	▢	▢

I document timeously and appropriate reports of assessments, decisions about client status, plans, interventions and client outcomes.	▢	▢	▢	▢	▢	▢
I feel confident communicating with physicians, colleagues, patients and their families.	▢	▢	▢	▢	▢	▢
I feel comfortable making suggestions for changes to the nursing plan of care.	▢	▢	▢	▢	▢	▢
I do not feel overwhelmed by my patient care responsibilities and workload.	▢	▢	▢	▢	▢	▢

33. Rate how often you use the following skills in your current employment.						
I feel at ease asking for the support of my co-workers, subordinates, or supervisors to complete a task.	▢	▢	▢	▢	▢	▢
I feel able to make decisions on my own.	▢	▢	▢	▢	▢	▢
I am not having difficulty prioritizing and organizing patient care needs.	▢	▢	▢	▢	▢	▢
I feel attention to detail is important in accomplishing an assigned task.	▢	▢	▢	▢	▢	▢

34. Currently, what type of unit are you working in? (Tick only one)	
Please choose (tick) only one answer from below list (Single Choice)	
◯	General medical and surgical
◯	Gynaecology
◯	Orthopaedics

◯	Paediatrics
◯	Midwifery
◯	Psychiatry
◯	Theatre
◯	Outpatients e.g. Trauma
◯	CHC

Other (please specify)

35. In which of the following areas do you need strengthening and support, both for theory and clinical practice? (Please specify how it needs strengthening and or what support is needed for theory or clinical practice. If none, please enter NA in corresponding box)

Please enter your answer on each row below

Theory Specify	
General medical and surgical	
Gynaecology	
Orthopaedics	
Paediatrics	

Midwifery	
Psychiatry	
Theatre	
Outpatients e.g. Trauma	
CHC	
Other, Specify	

36. Rate your experience of being a student in the B Nursing Program with an Tick in one of the faces below. (Tick only one)

Please choose (tick) only one answer from below list (Single Choice)

◯	Very Happy	
◯	Happy	
◯	In between	
◯	Unhappy	
◯	Very Unhappy	

15. FURTHER EDUCATION

37. Did the undergraduate nursing programme adequately provide a foundation for further studies?	
Please choose (tick) only one answer from below list (Single Choice)	
◯	Yes
◯	No
38. Are you planning to pursue nursing post-graduate studies?	
Please choose (tick) only one answer from below list (Single Choice)	
◯	Yes
◯	No
39. If Yes, specify which nursing post-graduate study:	
Please enter your answer below	

APPENDIX 3: EMPLOYER INFORMATION SHEET

NURSE GRADUATE TRACER STUDY 2015

UNIVERSITY OF THE WESTERN CAPE

EMPLOYER SURVEY

INFORMATION SHEET

Dear Employer of Community Service Practitioner (CPS),

The School of Nursing, at the University of the Western Cape, is conducting a study that will trace graduates of the school.

This study wants to establish whether the undergraduate programme adequately prepared them for their current jobs.

As a supervisor of a recent graduate of the University of the Western Cape, you could provide us with the relevant information needed.

The study will ask all graduates of 2016 to take part. Therefore, the study will also ask all supervisors of these graduates to take part.

The study will last a period of three years.

You need to be directly involved in the supervision of one or more of the 2016 group of graduates of the University of the Western Cape.

You need to complete a questionnaire about attributes, competencies, and competence of the 2016 group of graduates from the University of the Western Cape. Based on the analysis of this questionnaire, you might need to take part in an interview for further clarification.

There are no risks or discomforts associated with your participation.

*There are no personal benefits to you as a participant. I*nformation, which the participants will provide, will assist in nursing curriculum reform. It will assist in planning for future educational needs.

Participation is voluntary. Therefore, you have the choice of not participating. If you decide to withdraw at any time during the study, you may do so.

*T*he information, which the participants will provide, will lead to improving the programme. The programme improvements will result in an alignment of the programme to the employer expectations and patient needs.

You will not receive your test results directly. You may contact the researcher, Mrs L van der Berg for feedback.

The researcher will not share the results directly with the participants. The researchers will publish the results in research journals and present it at various

conferences. Participants however may contact the researcher, Mrs L van der Berg for feedback.

The study will not collect, store or use any samples, including blood, tissue or any other.

You will not receive any rewards, for taking part.

Only the researchers of the project will see the information collected about participants. To ensure strict confidentiality and no names linked to participants, the researchers will present a summary form of the results.

Please feel free to contact Mrs van der Berg should you have any further questions.

Therefore, we would appreciate your completion of the attached consent form, indicating your **voluntary consent to participate**. Attached is the first questionnaire. Please complete by answering all questions honestly and return it to us, by…

Contact Details:

Researcher: Mrs Lindy van der Berg

Mobile: 0722368398

Email 1: 9777373@myuwc.ac.za Email 2: lsvanderberg@gmail.com

Research Ethics Committee Officer at *University of the Western Cape: Ms Patricia Josias*

Address: Private Bag X17, Bellville 7535, South Africa

Telephone: 27 21 959 2988/2948

Fax: 27 21 959 3170

Email: pjosias@uwc.ac.za www.uwc.ac.za

Thank you for your willingness to participate and collaborate in the interest of nursing education

APPENDIX 4: EMPLOYER CONSENT FORM

UNIVERSITY OF THE WESTERN CAPE

SCHOOL OF NURSING

Private Bag X17 BELLVILLE 7535 South Africa

EMPLOYER PARTICIPANT CONSENT FORM

QUESTIONNAIRE

Title: Tracer study as a paradigm for the improvement of the quality of undergraduate nursing programmes in Higher Education Institutions

This study wants to establish whether the undergraduate programme adequately prepared them for the expectations of their current jobs.

As a supervisor of a recent graduate of the University of the Western Cape, you could provide us with the relevant information needed to conduct the study.

The research will take place over three years. Within these three years, you would be required to complete questionnaires at various time intervals, which should take about 30 minutes to complete. You may also need to take part in an interview, which would take about an hour. You will not need to take any time off from work in order to take part in the study.

There are no procedures, drugs or other treatments involved in this research.

There are no risks or discomforts associated with your participation in the study.

There are no personal benefits to you as a participant. Information, which the participants will provide, will assist in nursing curriculum reform. It will assist in planning for future educational needs.

Participation in the study is voluntary. Therefore, you have the choice of not participating in the study. If you decide to withdraw at any time during the study, you may do so.

If you decide not to take part in this research, there will be no harmful effect to you personally or to your professional career.

The information, which the participants will provide, will lead to improving the programme. The programme improvements will result in an alignment of the programme to the employer expectations and patient needs.

I, _____, voluntarily consent to participate in the above-mentioned research project. I have received a detailed explanation of the purpose and benefits of the study, which will lead to an improvement in the B. Nursing programme. In addition, I have received an information sheet. I understand the contents thereof. I understand that I will be one of approximately 199 employer participants in this study.

I understand that my involvement in this study will be a once off completion of a questionnaire, with the possibility of a follow up interview, for this study developed by Professor Daniels. I understand that my responsibility in this study is to answer all questions as honestly as possible. I understand there are no foreseeable risks, for example, research related injury, or discomforts, for example performing of procedures, for me in taking part in the study. I understand that there is no direct benefit to me as participant. The benefit of the research to the public will be improvement of the education of nurses.

I understand that the researchers will not link names to the questionnaire, to ensure confidentiality. I understand that my private information will only be available to the research team of this study for analysis of data. The researchers will present the results of this study in summary form, keeping individual responses strictly confidential. I further understand that the sponsors of the study may also inspect the research records.

In addition, I have received an information sheet. I understand the contents thereof. I understand that I may withdraw from the study at any time without prejudice. I understand that the researchers will acknowledge my participation in the study although they will withhold my identity.

Signature of Participant:
_____Date:_____

Researcher: _____

Mrs Lindy van der Berg

Mobile: 0722368398

Email 1: 9777373@myuwc.ac.za

Email 2: lsvanderberg@gmail.com

Office use only: Survey code: e.g. 2016E01 Graduate Name: _____

APPENDIX 5: EMPLOYER SURVEY

1. Graduate details

1. Please provide us with the following contact information:	
Please enter your answer on each row (* Required)	
Graduate Name and Surname:	
Ward:	
Health Facility:	
Supervisor Name and Surname:	
Supervisor Email address:	
Supervisor telephone number:	
Supervisor alternative number:	

2. TYPE OF HEALTH CARE FACILITY

2. Under which of the following categories can this health care facility be categorised	
Please choose (tick) only one answer from below list (Single Choice)	
◯	**Tertiary hospital**
◯	**Regional hospital**
◯	**Community Health Centre (CHC)**
Other (please specify)	

3. What type of unit is this?	
Please choose (tick) only one answer from below list (Single Choice)	
◯	**General medical and surgical**
◯	**Gynaecology**
◯	**Orthopaedics**
◯	**Paediatrics**
◯	**Midwifery**
◯	**Psychiatry**
◯	**Theatre**
◯	**Outpatients e.g. Trauma**
◯	**CHC**
Other (please specify)	

4. Are you currently supervising a CSP from the University of the Western Cape?	
Please choose (tick) only one answer from below list (Single Choice)	
◯	**Yes**
◯	**No**

5. How many CSP are currently placed in this unit?
Please enter your answer below

6. How many registered nurses (excluding the CSP) works in the unit on a given shift?
Please enter your answer below

3. SKILLS REQUIREMENT FOR THE JOB

7. How important are the following attributes /competencies required for effective functioning in this unit?			
Please choose (tick) only one answer on each row (Matrix of Single Choice)			
	Not important	Important	Very important
Nursing-specific theoretical knowledge	☐	☐	☐
Nursing-specific clinical knowledge	☐	☐	☐
Computer literacy	☐	☐	☐
Problem solving skills	☐	☐	☐
Analytical skills	☐	☐	☐
Written communication skills	☐	☐	☐
Verbal communication skills	☐	☐	☐
Initiative	☐	☐	☐
Adaptability	☐	☐	☐
Ability to work under pressure	☐	☐	☐
Teamwork	☐	☐	☐
Ability to work independently	☐	☐	☐
Planning and organizing skills	☐	☐	☐
Attention to detail	☐	☐	☐

8. Rate the CSP in your unit for the following attributes / competencies:			
Please choose (tick) only one answer on each row (Matrix of Single Choice)			
	Not yet competent	Competent	Proficient
Nursing-specific theoretical knowledge	☐	☐	☐
Nursing-specific clinical knowledge	☐	☐	☐
Computer literacy	☐	☐	☐
Problem solving skills	☐	☐	☐
Analytical skills	☐	☐	☐
Written communication skills	☐	☐	☐
Verbal communication skills	☐	☐	☐
Initiative	☐	☐	☐
Adaptability	☐	☐	☐
Ability to work under pressure	☐	☐	☐
Teamwork	☐	☐	☐
Ability to work independently	☐	☐	☐
Planning and organizing skills	☐	☐	☐
Attention to detail	☐	☐	☐

9. Which systems does this institution have in place to support the CSPs transition from university to the world of work?	
Please choose (tick) only one answer from below list (Single Choice)	
◯	Structured orientation
◯	Structured Mentorship
◯	Peer supervision
Other (please specify)	

4. JOB REQUIREMENTS VERSUS PREPARATION BY THE B NURSING DEGREE

10. Considering the attributes, competencies and competence of the CSPs you supervise, which aspects of their THEORETICAL training do you suggests needs strengthening:	
Please enter your answer on each row below	
General medical and surgical	
Gynaecology	
Orthopaedics	
Paediatrics	
Midwifery	
Psychiatry	
Theatre	
Outpatients e.g. Trauma	
CHC	
Other, please specify	

11. Considering the attributes, competencies and competence of the CSPs you supervise, which aspects of their CLINICAL training do you suggests needs strengthening	
Please enter your answer on each row below	
General medical and surgical	
Gynaecology	
Orthopaedics	
Paediatrics	
Midwifery	
Psychiatry	
Theatre	
Outpatients e.g. Trauma	
CHC	
Other, please specify	

APPENDIX 6: GRADUATE INTERVIEW SCHEDULE AND CONSENT FORM

Interview code: e.g. 2015G01 _____

Graduate Name: _____

Landline telephone number: _____

Mobile / Cell no: _____

Alternate telephone no: _____

Email: _____

NURSE GRADUATE TRACER STUDY 2016

UNIVERSITY OF THE WESTERN CAPE

GRADUATE SEMI-STRUCTURED INTERVIEW SCHEDULE

Questions:	**Prompts:**
1. You completed the survey regarding the B Nursing Programme. Please elaborate on your positive / negative experiences.	Give examples
2. In the survey 64% of graduates repeated year level two. What would you say could be reason/reasons for this?	
3. In the same survey 58% of graduates indicated that they did not fare well theoretically in General Nursing Science and 60% in clinical? Could you please indicate what you think is the reason for this?	
4. In terms of the different theoretical components of the programme the majority of graduates evaluated it as good to excellent across the four year levels. Do you think that this is a true reflection and why?	Give examples. Theoretical components for example , facilitation by class lecturer, structure and content of module, contact with lecturer, teaching resources

5. In terms of the different clinical components of the programme, the majority of graduates evaluated it as good to excellent across the four year levels. Do you think that this is a true reflection and why?	Give examples. Clinical components, for example, clinical teaching, clinical placements, clinical supervision and resources for skills lab
6. Do you think the 3% of the graduates who indicated that they were unhappy being students of the Nursing programme in comparison to 67% that indicated that they were happy to very happy is a true reflection, and why?	
7. Contact with lecturers was found to have a significant influence on the graduates not faring well clinically in a specific discipline. Could you give possible reasons for this?	What was your experience?
8. Why do you think that graduates that took a break in study were less likely to experience clinical teaching and learning as **not** good?	Clinical teaching and learning, for example, Lecturer /Clinical Supervisor able to link practice to theory; Sufficient opportunity to question; Lecturer /Clinical Supervisor required students to problem solve; Effectively developed clinical confidence; Demonstrations pitched at the correct level; Adequate in preparation for role as a registered nurse
9. Why do you think graduates that took a break in study were less likely to evaluate the resources of the skills lab as positive?	
10. Why do you think that married graduates more likely experienced Clinical supervision as positive as opposed to those graduates with any other marital status?	Clinical supervision, for example, Clinical Supervisors honored the appointments; Clinical Supervisors provided clinical support; Sufficient one-on-one supervision; Clinical

	Supervisors provided effective feedback; Promote clinical judgment in real life setting; Promote critical thinking in real life setting; Promote problem solving skills in real life setting; Support from registered nurses at the placements; Demonstrations pitched at the correct level
11. Married graduates were also more likely to evaluate the resources in the skills laboratory more positively than their counterparts. What do you think could be reason(s) for this finding?	Resources in the skills laboratory, for example, Quality of equipment in skills laboratories; Adequate for training in preparation for placement, Sufficient opportunity to use equipment
12. Why do you think graduates that passed Cum laude and Summa Cum laude utilised the skills, gained from the programme, in their current work more than their counterparts that just passed the programme?	
13. In which way did the B Nursing programme prepare you for your initial transition from university to the world of work?	Give examples
14. Describe any incidence, since your employment as a community service practitioner, which made you feel that you lacked the necessary competence for the job.	

GRADUATE INTERVIEW CONSENT FORM:

Title of Research Project: **Advisory framework to inform the development of a micro-curriculum for a new Bachelor of Nursing degree programme offered at a University in the Western Cape**

The study has been described to me in language that I understand. My questions about the study have been answered. I understand what my participation will involve and I agree to participate of my own choice and free will. I understand that my identity will not be disclosed to anyone. I understand that I may withdraw from the study at any time without giving a reason and without fear of negative consequences or loss of benefits.

___ I agree to be audiotaped during my participation in this study.

___ I do not agree to be audiotaped during my participation in this study.

Participant's name……

Participant's signature…….

Date……

APPENDIX 7: EMPLOYER INTERVIEW SCHEDULE AND CONSENT FORM

Interview code: e.g. 2015E01 _____

Graduate Name: _____

Landline telephone number: _____

Mobile / Cell no: _____

Alternate telephone no: _____

Email: _____

NURSE GRADUATE TRACER STUDY 2016

UNIVERSITY OF THE WESTERN CAPE

EMPLOYER SEMI-STRUCTURED INTERVIEW SCHEDULE

Questions:	**Prompts:**
1. You completed the survey regarding your experience of the attitudes and competence of the community service practitioner from the B Nursing Programme you supervise. Please elaborate on your positive / negative experiences.	Give examples
2. The survey questioned the competencies required for the job and required you to rate the attitudes and competencies of CSP. Describe whether the CSP's competencies were adequate or not for the job requirements and how this impacted on patient care?	What are the gaps?
3. In the survey 10% of the employers indicated that computer literacy is a very important graduate attribute however 10.8% of graduates were rated as not yet competent in computer literacy. What is the impact of this on the graduate's job performance?	
4. Describe any incidence where the CSP was at risk of causing a medical legal hazard.	
5. Although employers indicated that there is some support for graduates to transition, the average score for the competency rating of the graduate was 50%. What could be a reason(s) for graduates not being able to transition fully to their world of work?	

EMPLOYER INTERVIEW CONSENT FORM

Title of Research Project: **Advisory framework to inform the development of a micro-curriculum for a new Bachelor of Nursing degree programme offered at a University in the Western Cape**

The study has been described to me in language that I understand. My questions about the study have been answered. I understand what my participation will involve and I agree to participate of my own choice and free will. I understand that my identity will not be disclosed to anyone. I understand that I may withdraw from the study at any time without giving a reason and without fear of negative consequences or loss of benefits.

___ I agree to be audiotaped during my participation in this study.

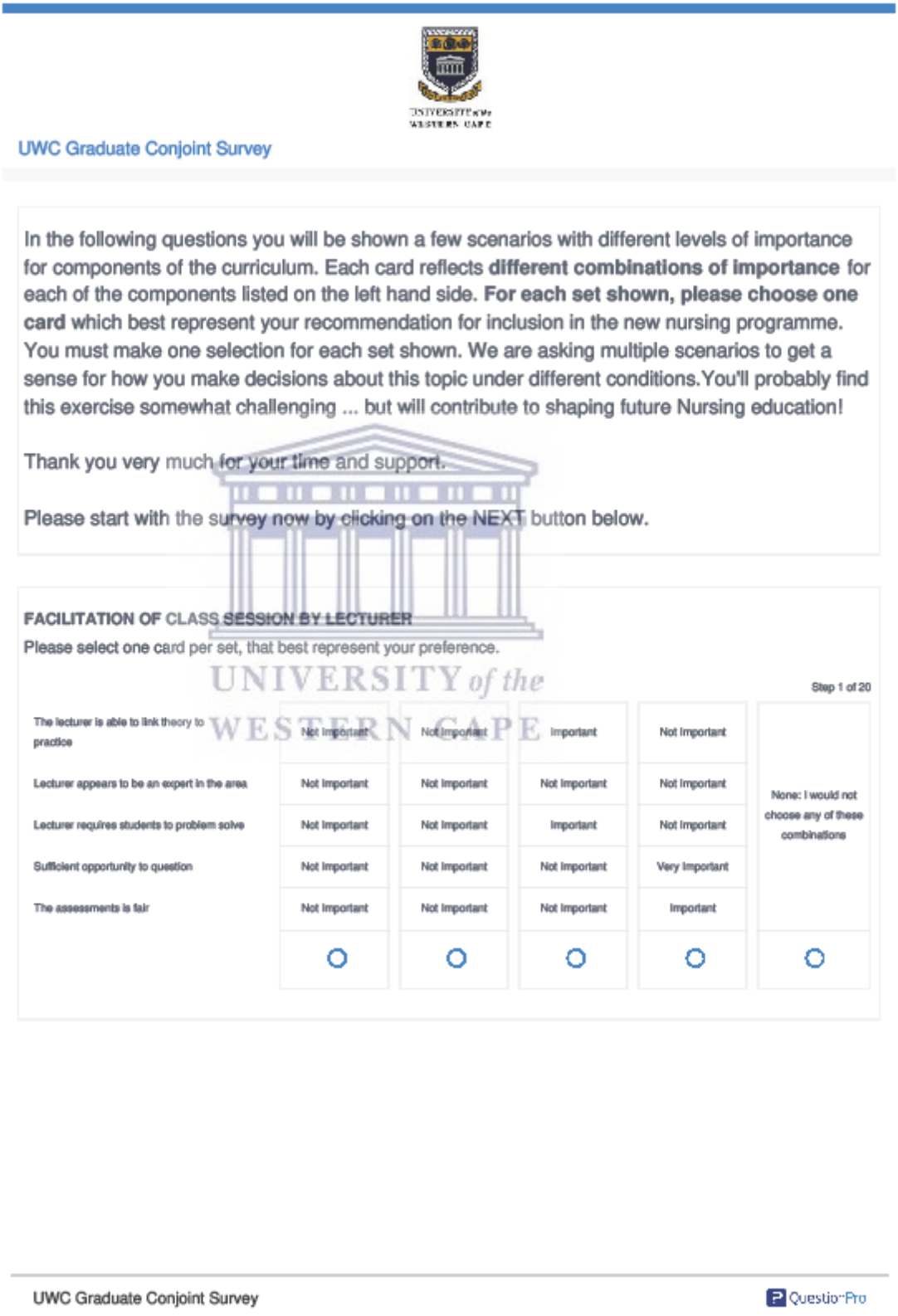
___ I do not agree to be audiotaped during my participation in this study.

Participant's name……..

Participant's signature…….

Date……

APPENDIX 8: GRADUATE CONJOINT SURVEY



UWC Graduate Conjoint Survey

In the following questions you will be shown a few scenarios with different levels of importance for components of the curriculum. Each card reflects **different combinations of importance** for each of the components listed on the left hand side. **For each set shown, please choose one card** which best represent your recommendation for inclusion in the new nursing programme. You must make one selection for each set shown. We are asking multiple scenarios to get a sense for how you make decisions about this topic under different conditions.You'll probably find this exercise somewhat challenging ... but will contribute to shaping future Nursing education!

Thank you very much for your time and support.

Please start with the survey now by clicking on the NEXT button below.

FACILITATION OF CLASS SESSION BY LECTURER

Please select one card per set, that best represent your preference.

Step 1 of 20

The lecturer is able to link theory to practice	Not Important	Not Important	Important	Not Important	None: I would not choose any of these combinations
Lecturer appears to be an expert in the area	Not Important	Not Important	Not Important	Not Important	
Lecturer requires students to problem solve	Not Important	Not Important	Important	Not Important	
Sufficient opportunity to question	Not Important	Not Important	Not Important	Very Important	
The assessments is fair	Not Important	Not Important	Not Important	Important	
	○	○	○	○	○

UWC Graduate Conjoint Survey

QuestionPro

STRUCTURE AND CONTENT OF PROGRAM/ MODULES

Please select one card per set, that best represent your preference.

Step 1 of 20

The lecturer is able to link theory to practice	Not Important	Not Important	Important	Not Important	None: I would not choose any of these combinations
Lecturer appears to be an expert in the area	Not Important	Not Important	Not Important	Not Important	
Lecturer requires students to problem solve	Not Important	Not Important	Important	Not Important	
Sufficient opportunity to question	Not Important	Not Important	Not Important	Very Important	
The assessments is fair	Not Important	Not Important	Not Important	Important	
	○	○	○	○	○

CONTACT WITH LECTURERS

Please select one card per set, that best represent your preference.

Step 1 of 20

The lecturer is able to link theory to practice	Not Important	Not Important	Important	Not Important	None: I would not choose any of these combinations
Lecturer appears to be an expert in the area	Not Important	Not Important	Not Important	Not Important	
Lecturer requires students to problem solve	Not Important	Not Important	Important	Not Important	
Sufficient opportunity to question	Not Important	Not Important	Not Important	Very Important	
The assessments is fair	Not Important	Not Important	Not Important	Important	
	○	○	○	○	○

RESOURCES

Please select one card per set, that best represent your preference.

Step 1 of 20

The lecturer is able to link theory to practice	Not Important	Not Important	Important	Not Important	None: I would not choose any of these combinations
Lecturer appears to be an expert in the area	Not Important	Not Important	Not Important	Not Important	
Lecturer requires students to problem solve	Not Important	Not Important	Important	Not Important	
Sufficient opportunity to question	Not Important	Not Important	Not Important	Very Important	
The assessments is fair	Not Important	Not Important	Not Important	Important	
	○	○	○	○	○

CLINICAL TEACHING AND LEARNING

Please select one card per set, that best represent your preference.

Step 1 of 20

The lecturer is able to link theory to practice	Not Important	Not Important	Important	Not Important	None: I would not choose any of these combinations
Lecturer appears to be an expert in the area	Not Important	Not Important	Not Important	Not Important	
Lecturer requires students to problem solve	Not Important	Not Important	Important	Not Important	
Sufficient opportunity to question	Not Important	Not Important	Not Important	Very Important	
The assessments is fair	Not Important	Not Important	Not Important	Important	
	○	○	○	○	○

CLINICAL PLACEMENTS (HOSPITALS, CLINICS, ETC.)

Please select one card per set, that best represent your preference.

Step 1 of 20

The lecturer is able to link theory to practice	Not Important	Not Important	Important	Not Important	None: I would not choose any of these combinations
Lecturer appears to be an expert in the area	Not Important	Not Important	Not Important	Not Important	
Lecturer requires students to problem solve	Not Important	Not Important	Important	Not Important	
Sufficient opportunity to question	Not Important	Not Important	Not Important	Very Important	
The assessments is fair	Not Important	Not Important	Not Important	Important	
	○	○	○	○	○

CLINICAL SUPERVISION

Please select one card per set, that best represent your preference.

Step 1 of 20

The lecturer is able to link theory to practice	Not Important	Not Important	Important	Not Important	None: I would not choose any of these combinations
Lecturer appears to be an expert in the area	Not Important	Not Important	Not Important	Not Important	
Lecturer requires students to problem solve	Not Important	Not Important	Important	Not Important	
Sufficient opportunity to question	Not Important	Not Important	Not Important	Very Important	
The assessments is fair	Not Important	Not Important	Not Important	Important	
	○	○	○	○	○

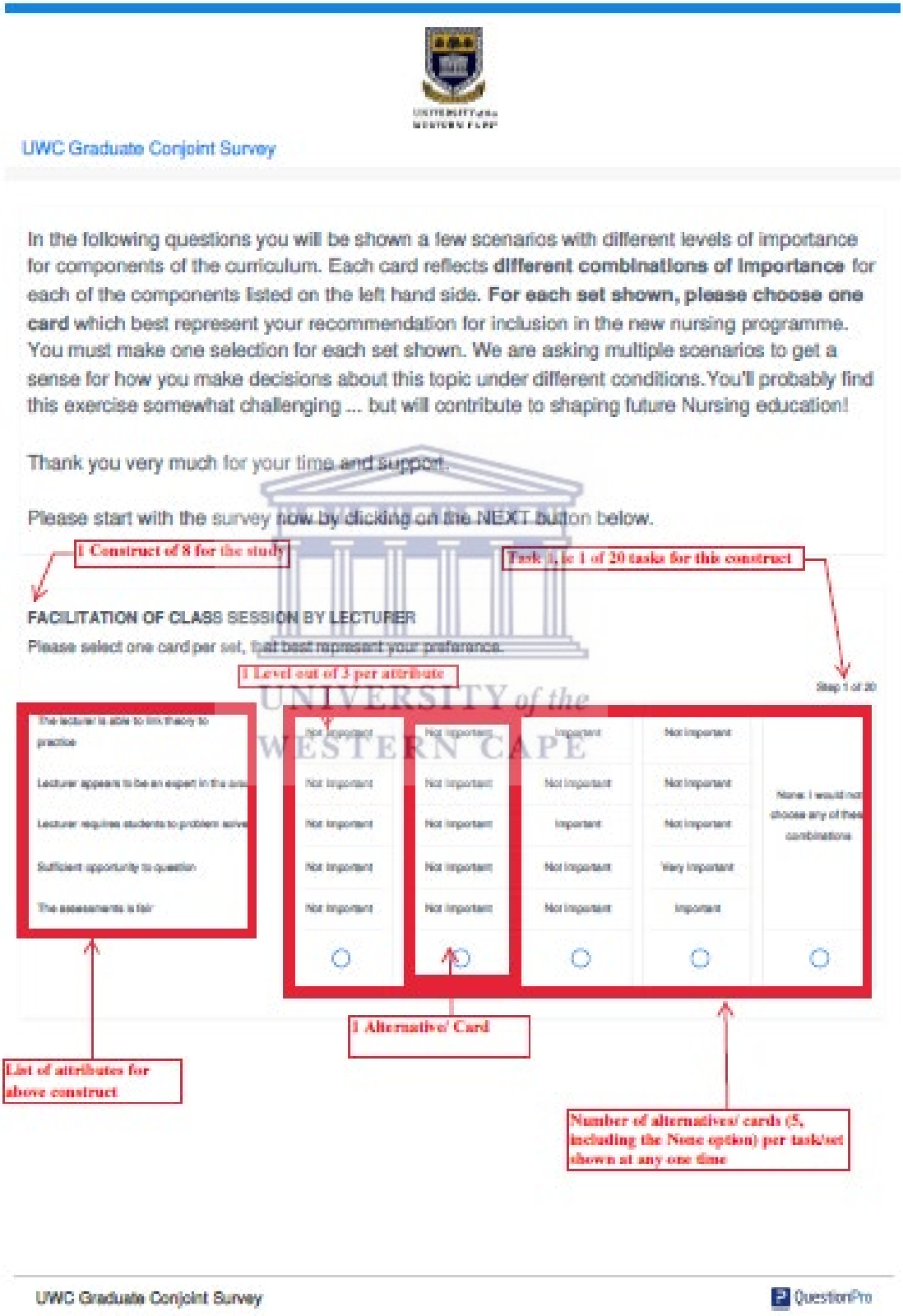
RESOURCES FOR SKILLS LABORATORIES

Please select one card per set, that best represent your preference.

Step 1 of 20

The lecturer is able to link theory to practice	Not Important	Not Important	Important	Not Important	None: I would not choose any of these combinations
Lecturer appears to be an expert in the area	Not Important	Not Important	Not Important	Not Important	
Lecturer requires students to problem solve	Not Important	Not Important	Important	Not Important	
Sufficient opportunity to question	Not Important	Not Important	Not Important	Very Important	
The assessments is fair	Not Important	Not Important	Not Important	Important	
	○	○	○	○	○

APPENDIX 9: TERMS USED FOR CONJOINT ANALYSIS SURVEY



APPENDIX 10: RESEARCH ETHICS APPROVAL

UNIVERSITY of the WESTERN CAPE

OFFICE OF THE DEAN
DEPARTMENT OF RESEARCH DEVELOPMENT

08 September 2015

To Whom It May Concern

I hereby certify that the Senate Research Committee of the University of the Western Cape approved the methodology and ethics of the following research project by:
Mrs LS van der Berg (School of Nursing)

Research Project:	Advisory framework to inform the development of a micro-curriculum for a new Bachelor of Nursing degree programme offered at a university in the Western Cape.
Registration no:	15/6/20

Any amendments, extension or other modifications to the protocol must be submitted to the Ethics Committee for approval.

The Committee must be informed of any serious adverse event and/or termination of the study.

Ms Patricia Josias
Research Ethics Committee Officer
University of the Western Cape

Private Bag X17, Bellville 7535, South Africa
T: +27 21 959 2988/2948 . F: +27 21 959 3170
E: pjosias@uwc.ac.za
www.uwc.ac.za

APPENDIX 11: WESTERN CAPE DOH PERMISSION LETTER

Western Cape Government
Health

STRATEGY & HEALTH SUPPORT
[illegible]
Tel: +27 21 483 [illegible]; fax: +27 21 483 [illegible]
[illegible] Floor, Norton Rose House, 8 Riebeek Street, Cape Town, [illegible]
[illegible]

REFERENCE: RP[illegible]/2014
ENQUIRIES: Ms Charlene Roderick

University of the Western Cape
Private Bag X17
Bellville
7535

For attention: **Prof Felicity Daniels, Mrs LP Fakude, Ms N Linda, Mrs P Martin, Mrs L Richards, Mrs I September and Mrs L van der Berg**

Re: **TRACER STUDY TOWARDS A FRAMEWORK FOR THE IMPROVEMENT OF THE QUALITY OF UNDERGRADUATE NURSING PROGRAMMES IN HIGHER EDUCATION INSTITUTION.**

Thank you for submitting your proposal to undertake the above-mentioned study. We are pleased to inform you that the department has granted you approval for your research.
Please contact the following people to assist you with any further enquiries in accessing the following sites:

Michael Mapongwana CHC	N Jonas	Contact No: 021 361 [illegible]
DP Marais	[illegible]	Contact No: 021 [illegible]
Brewelskloof Hospital	D Theron	Contact No: 023 348 1301
Victoria Hospital	M Moodley	Contact No: 021 799 1234
Mowbray Maternity Hospital	J Joemat	Contact No: 021 [illegible]
Lentegeur Hospital	Y Gertse	Contact No: 021 3701243
Valkenberg Hospital	C Dean	Contact No: 021 440 3160
Alexander Hospital	L Meyer	Contact No: 021 503 5004
Mosselbay Hospital	A Julies	Contact No: 044 691 2011
Swartland Hospital	A Stoffels	Contact No: 022 487 9202
De Doorns Clinic	I Tom	Contact No: 023 356 [illegible]
Stellenbosch Hospital	R Davids	Contact No: 021 808 6173

Kindly ensure that the following are adhered to:

1. Arrangements can be made with managers, providing that normal activities at requested facilities are not interrupted.

2. Researchers, in accessing provincial health facilities, are expressing consent to provide the department with an electronic copy of the final report within six months of completion of research. This can be submitted to the provincial Research Co-ordinator (Health.Research@westerncape.gov.za).
3. The reference number above should be quoted in all future correspondence.

Yours sincerely

DR A HAWEKER
DIRECTOR: HEALTH IMPACT ASSESSMENT
DATE: 18/8/2015

cc DR C GRAMMER — DIRECTOR: SOUTHERN/ WESTERN
D KEETS — ACTING DIRECTOR: KHAYELITSHA/ EASTERN
J PHILIP — DIRECTOR: CAPE WINELAND
R SCHIMANN — DIRECTOR: WEST COST

<u>APPENDIX 12:</u> ENDORSEMENT LETTER OF INDEPENDENT DATA ANALYST

07 March 2022

TO WHOM IT MAY CONCERN

TITLE: ADVISORY FRAMEWORK TO INFORM THE DEVELOPMENT OF A MICRO-CURRICULUM FOR A NEW BACHELOR OF NURSING DEGREE PROGRAMME OFFERED AT A UNIVERSITY IN THE WESTERN CAPE

STUDENT NAME: Lindy van der Berg

STUDENT NUMBER: 9777373

TYPE OF THESIS: Doctoral

DEPARTMENT: School of Nursing

SUPERVISOR: Prof F Daniels

I, Jude Igumbor, hereby confirm I was involved in the above study as an independent data analyst in 2018 for the quantitative data.

I further confirm that the analyses are a true and accurate reflection of the study findings.

Regards

Dr Jude Igumbor

Tel: 072 791 5927

Email: Judeigumbor@yahoo.co.uk

APPENDIX 13: ENDORSEMENT LETTER OF INDEPENDENT CODER

Prof Jeanette Maritz
Academic & Research Consultant

25 January 2022

TITLE: Advisory framework to inform the development of a micro-curriculum for a new Bachelor of Nursing degree programme offered at a University in the Western Cape

STUDENT NAME: Lindy van der Berg

STUDENT NUMBER: 9777373

TYPE OF THESIS: Doctoral

DEPARTMENT: School of Nursing

SUPERVISOR: Prof F Daniels

I, Jeanette E Maritz, confirm I was involved in the above study as an independent co-coder in 2018 for the qualitative data. I confirm that we reached a consensus on the main themes and findings at the time.

Regards

APPENDIX 14: EDITING LETTER

TO WHOM IT MAY CONCERN

This letter confirms that the dissertation with the title "**Advisory Framework to Inform the Development of a Micro-Curriculum for a New Bachelor of Nursing Degree Programme Offered at a University in the Western Cape**" by Lindy Sheryldene van der Berg at the University of the Western Cape in fulfilment of the requirements for the PhD (Nursing) degree has been edited for grammatical and structural concerns by the undersigned language professional. Neither the research content nor the author's intentions were altered in any way during the editing process. The responsibility lies with the author to effect changes and to attend to any anomalies indicated during the editing process. Formatting and layout as well as reference checking were not included in the editing process. The editor's professional profile can be viewed on LinkedIn. (https://za.linkedin.com/in/gava-kassiem-a7569b39).

Gava Kassiem
Independent Language Specialist/Academic Editor
MA (Linguistics and Language Practice)
Member of Professional Editors' Guild
Member of Pro Lingua
7 December 2021

APPENDIX 15: TURNITIN SIMILARITY REPORT

9777373:Lindy_van_der_Berg_Thesis.docx

ORIGINALITY REPORT

14%	12%	3%	4%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	hdl.handle.net Internet Source	3%
2	etd.uwc.ac.za Internet Source	1%
3	Submitted to University of the Western Cape Student Paper	1%
4	Submitted to Griffth University Student Paper	1%
5	core.ac.uk Internet Source	1%
6	answers.yahoo.com Internet Source	<1%
7	www.sanc.org.za Internet Source	<1%
8	Kathleen Milton-Wildey, Patricia Kenny, Glenda Parmenter, Jane Hall. "Educational preparation for clinical nursing: The satisfaction of students and new graduates	<1%