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FACTORS INFLUENCING THE IMPLEMENTATION OF LEARNER-CENTRED APPROACHES IN NURSING EDUCATION IN KWAZULU-NATAL

SANJAY DAWRAJ RAMLUCKEN

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Supervisor : Dr A. Razak

Co-supervisor: Dr T.S.P Ngxongo

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Declaration

This is to certify that the work is entirely my own and not of any other person, unless explicitly acknowledged (including citation of published and unpublished sources). The work has not been submitted in any form to the Durban University of Technology or to any other institution for assessment or for any other purpose.

15-06-2020

Signature of student Date

Approved for final submission

15-06-2020

Dr A. Razak Date

RN, RM, PhD

16/06/2020

Dr TSP Ngxongo Date

RN, RM, D Tech.

Dedication

I dedicate this humble dissertation to my loving parents Bobby and Pam Ramlucken, my wife Kubashini and children Ruchè, Tvisha and Rudae. Thank you for always being the inspiration and encouragement in my life.

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First and foremost, I wish to thank God, for the wisdom, strength, peace of mind and good health in order to finish this research study.

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ABSTRACT

Introduction

Nursing education in South Africa and internationally has seen dramatic changes over the past century. The continued use of traditional learning approaches, rather than more innovative learner-centred ones, has become problematic, as nurse educators continue to rely on teaching methods that foster rote memorisation of facts rather than the process of critical thinking.

Aim

The aims of this study are to investigate the factors influencing the implementation of learner-centred approaches in nursing education in KZNCN.

Methodology

A quantitative descriptive survey research design was used to establish the relationships between variables that impact on learner-centred teaching practices. The sample size was the total population of nurse educators working at the ten campuses within the KwaZulu-Natal College of Nursing (n=220). Data was gathered by means of a self-administered questionnaire which was distributed to the participants by the researcher.

Data was analysed descriptively using SPSS version 21 with assistance from a statistician. Various tests were used to analyse the data, such as number, percentage, means, standard deviations, chi square goodness-of-fit test, chi square test of independence, binomial test, t-test and analysis of variance (ANOVA).

Results

The majority of the respondents were Black 72.8% (n=115), with over three quarters (77.2%, n=122; p<.0005) indicating that they had not had any exposure to learner-centred teaching practices, which directly correlated to a high proportion (n=88%, n=139) not implementing learner-centred teaching practices. The outdated lecture methods of teaching were used by 41.8% (n=66), while innovative teaching strategies, such web- and evidenced-based teaching being rarely used. The respondents cited a

lack of teaching and learning resources as the main barrier to implementing learner-centred teaching practices, and a significant agreement that learners were willing to adopt learner-centred instruction (Z= -8.546; P>.0005).

Conclusion

This study revealed that nurse educators failed to adopt learner-centred methods of teaching and learning due to a lack of resources, such as internet, computers and library facilities, which resulted in in student nurses failing to take the initiative in self-directed learning.

Key words

Learner-centred environment, teacher-centred environment, learner-centred teaching and nursing education.

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List of Acronyms

DoH: Department of Health (South Africa)

KZNCN: Kwazulu-Natal College of Nursing

LCM: Learner-Centred Model

SANC: South African Nursing Council

SPSS: Statistical Package for the Social Sciences

NQF: National Qualifications Framework

SAQA: South African Qualifications Authority

ICT: Information and Communication Technology

INS: Institution

TEA: Teaching

CLASS: Classroom

OSD: Occupational Specific Dispensation

SDL: Self-directed Learning

KMO: Kaiser-Meyer-Olkin

CHAPTER 1: INTRODUCTION

1.1 Introduction

Nursing education and training in South Africa has transformed considerably over the last century, with health care leaders indicating the need for the graduating nurse to possess organisational, communicative, analytical and critical thinking skills to enable them to deliver safe and competent care to their patients. A major challenge, internationally and in South Africa, is the impact of globalisation and technology on nursing education, with the nursing profession needing to keep up to date in order not to be disadvantaged. In South Africa, the current nursing education is unable to ensure an appropriate quantity of professional nurses to ensure that patients receive the necessary level of care (Bvumbe & Mtshali, 2018:1).

Nurses are the largest category of health care providers, and play an essential part of the health sector reform initiatives. Given the centrality of nurses in the health care system, modifications in their production, scope of training, and education are important strategies for enhancing the functioning and influence of health care systems (Ndawo, 2015:103). South Africa is facing an increase burden of infections, such a HIV and AIDS, transmissible diseases, non-communicable, violence and injuries, resulting in high levels of illness and premature mortality (Gouda *et al*. 2019:1375).

Nurses' responsibilities are becoming increasingly challenging, which requires high levels of analytical and clinical judgement abilities, as they are expected to make accountable and practical choices to ensure safe and proficient nursing care. The production of competent nurses with pertinent capabilities remains a critical role of nursing instruction. On-going improvements in nursing education are recognised as essential to improving the level of health care and health systems (Bvumbe & Mtshali, 2018:1).

Teaching approaches must encourage active learning, and educate learners on how to analyse and assess the relevance of information in various settings and situations. In general, conventional nursing education systems have not led to the attainment of higher order intellectual abilities, yet remain the main form of instruction in the classroom, with the lecture method being the main format for teaching (Oyelana,

Martin, Scanlan & Temple, 2018:1). According to Mthiyane and Habedi (2018:2), nursing students are not being taught in a way that promotes active learning and application of classroom acquired information, and nurse educators continue to use the lecture method of teaching, for the delivery of large quantities of information.

The emphasis on memorising information during the programme in preparation for written evaluation does not help learners in the long term. Nurse educators often express concern around low-energy classes and learners who are usually unprepared and only preoccupied with test scores. Nurse educators need to seek new approaches that make learners more responsible and accountable for their own learning, thereby leading to noteworthy learning (Marrocco, 2014:177).

Nurse educators are tasked with the planning of learning experiences for nursing students that transforms into the delivery of secure, quality health care across numerous settings while including student-centred, patient-orientated learning activities into their instruction. Several nurse educators experience difficulty integrating such uses into their instruction competently due to various barriers in nursing education (Fielder *et al*. 2014:387). Educational settings can advance nurse educators feelings of enablement by employing innovative and advanced teaching approaches and behaviours. One of the barriers that nurse educators need to overcome, is the acquisition new technological skills, which was often cited as a major barrier in adopting innovative teaching strategies. When faculty encounter significant extrinsic barriers, they become discouraged, with diminished self-efficacy in implementing innovative teaching strategies (Fielder *et al*. 2014:388).

Van Rensburg and Botma (2015:2) reported that the sustained use of conventional teacher-centred methods rather than using new innovative learner-centred approaches is problematic, as nurse educators are failing to follow the current trends in higher education due to a lack of experience and training in learner-centred methods of teaching and learning. Nursing education needs to fast-track the use of innovative teaching strategies so that student education and achievements can be strengthened. As a consequence, nursing education must pursue innovative approaches to develop students to function effectively within the healthcare system (Ellis, 2013:1).

1.2 Background to study

Nursing education has evolved and changed over the past 150 years to become a highly specialised profession. New nursing graduates are expected to enter a highly technical, ethically complex and intellectually demanding health care system, yet are educated using methods that are anachronistic. The increasing knowledge about the requirement for a paradigm change has encouraged an awareness in the application of learner-centred instruction in nursing education (Oyelana *et al*. 2018:1), which has not always been followed through into action.

According to Ndawo (2015:104), the main problem with the delivery of heavily loaded content, is the use of the lecture method, an absence of active learning, and failure to advance analytical thinking and problem solving in student nurses. The sustained use of conventional learning methods rather than the application of more innovative learner-centred teaching methods are problematic in numerous health care programmes. The use of innovative methods of teaching graduates could lead to an improvement in the nursing care of patients, decreased death rates and the prevention of hospital acquired infections. The current emphasis on teacher-centred learning and academic content has been identified as having limited effectiveness in accommodating diverse learners (Ndawo, 2015:104).

Ellis (2013:4) mentions that the curriculum transformation undertaking of the 1980's has not been successful in altering the structure of nursing education. More innovative teaching methods are required, including collaboration between the academic world, and practice to address the rapid changes in the healthcare atmosphere. Learners need to be involved as active contributors in the learning process and in lifelong learning. Assisting students to manage with rapid adjustments in the healthcare setting need to be addressed in nursing education. Traditional nursing education curriculum models promote course content that is saturated with the examination of facts about an overwhelming number of disease processes and treatment modalities. Contemporary tendencies in nursing education dictate curricular changes aimed towards lessening the current nursing deficiency while re-examining the effectiveness of conventional programme paradigms. It is not known how nursing faculty perceive curricular transitions, and how these transitions may affect their roles as educators (Kyle, 2015:1).

A study conducted by Ndawo (2015:103) in South Africa revealed that nurse educators have problems conveying a content-laden programme to student nurses in large classes, which resulted in them using the lecture technique and did not enable the growth of high order cognitive abilities. Nurse educators also felt obliged to downgrade their intensity of teaching while conveying content-laden nursing programmes in order to assist academically unprepared student nurses, which resulted in the learners being less challenged and dejected during the course of its delivery.

Nursing programmes are confronted with the difficulties of coaching professionals for lifelong learning to accommodate the changing requirements of the healthcare setting. New educational strategies are required to enhance self-regulated and significant learning (Sharma, 2017:1). Knowledge achievement and the expansion of critical thinking skills are significant outcomes of nursing education. Nurse educators must work in partnership as change agents to develop nursing curriculums that are grounded in active learning as a change towards education improvement. Traditional education approaches must be changed in order to advance learning experiences and enable lifelong learning (Sharma, 2017:1).

According to Zwane and Mtshali (2019:6), the education system in South Africa has experienced major modifications and rearrangement since 1994 to create access, equity and redress. Nursing education still finds itself somewhat in a grey area, as it is offered at nursing colleges governed by the Department of Health (DoH) and in nursing departments at universities. One of the major reforms is the integration of nursing education into the Department of Higher Education and Training. This has created tensions in terms of unifying the nursing education system that will benefit the profession, and ensure the development of nurses according to the requirements of the country (Zwane & Mtshali, 2019:6).

Harerimana and de Beer (2013:30) stated that a competency-based method was included in schools of Nursing in Rwanda, which was important to the government in phasing out the low-level nursing courses and establishing a labour force of higher-level professionals. According to Harerimana and de Beer (2013:30), the central motive for introducing these changes in Rwanda was that the former education and instruction programmes in nursing schools were mostly subject based. The Rwandan

government recognised that there was a scarcity of skilful workers, and that conventional instructional methods were not enabling learners to acquire skills that would permit them to develop into responsible nurses who could deliver optimal nursing care in all sectors of the republic, making it important for innovative teaching strategies to be applied. According to Noh and Kim (2019:1), self-directed learning is a necessary and effective strategy for nursing students, which fosters independence, professional autonomy and increased motivation. This implies that the student is reflective and demonstrates critical thinking.

South Africa has a significant shortage in high quality professional nurses for health care provision. Nurses in rural areas of South Africa fulfil a very wide, multi-skilled function, but are frequently ineffectively equipped for it. Thus hospital facilities need nurses to uphold analytical thinking, assessment and decision-making abilities. The South African Provincial Governments have replied to this scarcity of professional nurses by increasing the quantity of bursaries for student nurses (Bimray, Le Roux & Fakude, 2013:1).

According to Bimray *et al*. (2013:17), and increased amount of nursing students therefore require that establishments providing nursing education evaluate their education and training approaches in order to guarantee that the quality of nursing education is of an optimum level to meet service needs. Nurse educators are therefore being confronted with the need to advance teaching and learning approaches that improve students' analytical thinking, problem solving and decision-making abilities. In order to achieve these skills, adjustments need to take place in the teaching and learning environment.

1.3 Problem statement

A problem statement expresses the nature, background, and importance of a problem (Polit & Beck, 2014:92). The current nursing education system of learning is teacher-centred, which is inflexible and inadequately prepares nursing students to foster independent learning and become critical thinkers. A considerable amount of information is available on the benefits of learner-centred nursing education, but nurse educators are ignoring and failing to implement it. This has been identified by the

researcher as a gap in the application of learner-centred approaches in nursing education.

According to Ndawo (2015:104), a major criticism of conventional nursing education is the dependence on the teacher-centred approaches of instruction, which makes learners inactive participants in the process. Delivering a content loaded programme poses major difficulties for nurse educators in using various teaching methods. To cover the content, the majority of nurse educators therefore depend on the conventional lecture method, which results in student nurses being frustrated and overwhelmed with the large amounts of content that they must learn (Ndawo, 2015:104). To date, little research has been undertaken in South Africa to investigate the factors influencing the implementation of learner-centred approaches in nursing education in the KwaZulu-Natal College of Nursing (KZNCN), KwaZulu-Natal Province, South Africa. In the absence of this information, it is difficult to ascertain whether educators are adopting learner-centred approaches or are continuing with the traditional teaching methodologies.

1.4 Aim and Objectives

The aims of this study are to investigate the factors influencing the implementation of learner-centred approaches in nursing education in KZNCN.

The objectives are:

1. To determine the nature and extent of the implementation of learner-centred approaches in nursing education in the current teaching practice.
2. To explore possible factors influencing teaching practice and learner-centred nursing education.
3. To identify the main factors influencing teaching practice and learner-centred nursing education.

1.5 Significance of the study

This study may influence nursing education, especially with regard to making nurse educators aware of the paradigm shift that are occurring in nursing education, from passive teacher-centred to an active learner-centred. Nurse educators would gain

insight into the factors that influence the implementation of a learner-centred nursing education and its impact on the improvement of healthcare standards. The study would also give nurse educators the opportunity to reflect on their teaching practices, and enable them to consider adopting contemporary teaching strategies that would enhance the learning and development of student nurses.

1.6 Operational Definitions

The following definitions apply to this document:

Learner-centred environment: this is a setting that permits learners to take control over their instructive experience, and inspires them to make significant selections about what and how to learn (Bishop, Caston & King, 2014:46).

Learner-centred teaching: this directs students to construct understanding using a collaborative, social context, and supports them to determine content by actively managing it, using critical thinking and reflecting on their understanding (Ellis, 2016:67).

Nursing Education: this is an expert field that centres on the instruction and teaching of students who are undergoing undergraduate and or post-graduate curriculum (South African Nursing Council, 2014:1).

1.7 Chapter structure

The study is arranged in the following four chapters:

Chapter 2: Literature review: this chapter reviews the international and local literature on learner-centred nursing education.

Chapter 3: Methodology: this chapter describes the methods used to achieve the three study objectives, and outlines the study setting, population and sample, as well as the data collection tools, process and analysis. It outlines issues related to validity and reviews the ethical considerations applied during the research.

Chapter 4: Presentation of results: this chapter is the results of the data analysis of the biographical data, current teaching practice, learner-centred teaching practices and factors influencing learner-centred education. The data that

was gathered provides all the relevant graphs and tables that are related to the study.

Chapter 5: Discussion and conclusion: this chapter provides a discussion of the biographical data, current teaching practice, learner-centred teaching practices and factors influencing learner-centred education. The chapter also discusses the recommendation, future research and limitations of the study.

1.8 Conclusion

In this chapter the basic background that triggered the need to embark on this study was discussed. Information from various studies reveals that nursing education needs to transform from a teacher-centred to a learner-centred teaching approach. Conventional teaching strategies continue to occupy predominance in the classroom, with the lecture method being the primary format of instruction, which is not enhancing the development of nursing education. The significance, problem statement, aim, objectives and research assumptions have been outlined.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

A literature review summarises published aspects on a subject by academics and offers pertinent research conclusions. The function is not to list all the information published, but rather to synthesize and appraise it on the foundation of the phenomenon of importance (Grove, Burns & Gray, 2013:97).

A search for empirical literature was undertaken relating to learner-centred teaching practices in nursing education. Online databases were searched using Academic Search Complete on EBSCO web, EBSCO host (CINAHL, Health Source-Nursing/Academic, Medline); Wiley online library, ProQuest and South Africa e-publications via Sabinet. The exploration showed that many reviews have been performed on learner-centred nursing education, which is presented in this chapter. It provides a brief explanation on the paradigm shift in nursing education, barriers to learner-centred nursing education, self-directed learning, traditional versus learner-centred learning, and nursing education reforms in South Africa.

2.2 Paradigm shift in nursing education

According to Maree, Yazbek and Leech (2018:3), the current health care programmes tend to be disjointed and obsolete, resulting in ill-equipped graduates. Transformative programmes signify a move from remembering facts to decision making, grounded on assessment and synthesis. Oyelana *et al*. (2018:119) reported that nursing curricula in Canada have transformed to include learner-centred methods of teaching and learning. Effective curricula must be able to meet the needs of the profession, be comprehensive, flexible, learner responsive and deliver a varied understanding, using present knowledge and resources.

In South Africa, the current nursing curriculum is criticised for placing more emphasis on teaching curative aspects of health care rather than health promotion and illness prevention. The traditional curriculum approach of teaching and learning is not able to provide personalised learning content that meets the individual requirements of students and the community (Mthembu, Mtshali & Frantz, 2014:1801). A curriculum that includes active student commitment in the learning practice can assist with

advancing critical thinking, problem solving and clinical judgement. Globally, the nursing curriculum continues to be content saturated, and needs to change its focus to nursing actions in relationship to critical thinking processes (Roof, 2012:24).

Many authors address the need for a paradigm shift in nursing education and the benefit of actively engaging students in the learning process (Miller, 2013:9). In response to these changes, the responsibilities of nurses have evolved and expanded, and they now function in roles that extend beyond the traditional bedside nursing care. It is not that nurse educators have failed to recognize the necessary changes in the health care environment, but rather that nurse educators and future employers have added new requirements and competencies to the nursing curriculum. These additions have led to the oversaturation of the nursing curriculum, which has widened the theory-practice gap and limited the students' growth of critical thinking skills, and has contributed to the call for nursing education transformation (Miller, 2013:9).

Rosenau *et al.* (2015:1) reports that numerous factors have driven the formal decision to redesign the nursing education curriculum. The effectiveness of student learning in nursing programs has been challenged by well recognised phenomenon of content-laden or additive curriculum, both of which refer to curriculum that focuses on memorizing and repeating large amounts of content and facts. The major principle of integrative learning draws attention to the interplay among the curriculum and pedagogy with faculty and student attributes. Purposeful curriculum design provides an opportunity for content application and synthesis (Rosenau *et al*. 2015:4). A context relevant curriculum asks for intentional linkages between the theory and practice, and for students to link their practice and knowledge of learning.

Mbirimtengerenji and Adejumo (2015:227), in their study of education approaches amongst nurse educators in Malawi, found that the low status of nursing and undergraduate failure was due to inadequate and inappropriate teaching strategies. The researchers maintain that mediocre performance of nursing students was due to an over-loaded programme, the focus being placed on nurse educators' attention of content, disjointed and artificial learning processes, and repetition among disciplines. This resulted in students establishing an absence of remembering and amalgamation of knowledge in the classroom and practice area.

2.3 Barriers to learner-centred nursing education

Barriers to the implementation of a learner-centred, technology based nursing education have been cited by Fielder *et al*. (2014:388). One barrier that nurse educators must conquer in accepting innovative technologies, is the requisite to learn new technical abilities. Nurse educators must have sufficient time in their allocated amount of work to learn how to practice and experiment with innovative ideas and technologies. Time needed to learn new technical skills are often cited as the major barrier to adopting new innovation in teaching methods. Fielder *et al*. (2014:388) reported that multiple studies cite a lack of institutional support as a major barrier to implementing learner-centred methods of teaching and learning. Research on nurse educator's awareness of institutional assistance points to the wish for certain infrastructures to be in position, such as release time for learning the technology, and sufficient support staff and reserves. Most nurse educators consider it is the institutions' obligation to teach nurse educators and prepare them to embrace innovative teaching strategies such as learner-centred teaching practices. The organisational strategy needs to be in line with the current overall strategy for nursing education. The environmental and institutional attitudes play an important role in technology integration in teaching methodologies (Fielder *et al*. (2014:388).

In a study conducted by Ferozali (2011:51), nurse educators readily admitted that mature learners are not the same as the younger scholars, as they necessitate the need for adult learning approaches. Designing learning settings to afford students with opportunities to take a more active role in learning requires changing from a teacher-centred to the learner-centred approach. The main concerns that need more attention are the added services required by nurse educators as they grapple to apply these types of activities in their classrooms. Moreover, research findings suggest that nurse educators, who use outdated approaches of teaching and learning, may be teacher complacency, which hampers the use of learner-centeredness.

Roof (2012:27) reports that nurse educators need to be conscious of the obstacles that hinder learning in the classroom, such as differences in student learning styles, preparation time for activities, teaching styles and a large number of students. To combat such issues, nurse educators need to assess on-going teaching strategies, examine the environment, and grab the attention of nursing students while creating an atmosphere

that establishes a productive teacher-student relationship. Inkelas *et al.* (2013:4) report that although there is a growing body of literature that supports the concept of learner-centred pedagogy as a best practice, there is evidence that faculty have not embraced the shift to this paradigm. Oyelana *et al*. (2018:123) reported that while students' opposition to such a paradigm may be due to insufficient comprehension of learner-centred teaching, they do not fundamentally dislike the approach, despite reacting adversely to its application. There are structural and cultural barriers that keep nurse educators from shifting to a learner-centred paradigm, which requires time and expertise (Oyelana *et al*. 2018:123). Despite faculty understanding and supporting the use of learner-centred pedagogical techniques, they may not implement these practices in their own classroom for several reasons. Some factors hindering the implementation of learner-centred nursing education were large classes, lack of confidence, difficulties in overcoming student dissatisfaction and time constraints (Inkelas *et al.* 2013:4).

In South Africa, many nurse educators reported that large student numbers, inadequate time, busy work schedules, administrative issues, an absence of knowledge regarding learner-centred teaching and curricula demands make it challenging to use teaching strategies to encourage effective thinking (Linda *et al.* 2014:87). According to Harerimana and de Beer (2013:38), nursing students reported that increased workload, lack of material resources, language, access to information, insufficient time and a lack of sufficient coverage of learning content were major barriers to learner-centred teaching and education. In a study conducted in Malawi Nursing Colleges, it is normal for nurse educators to feel discouraged and educationally ill-equipped for implementing learner-centred teaching practices (Mbirimtengerenji & Adejumo, 2015:227).

2.4 Nursing education reforms

Internationally and in South Africa, the discussion on the education of health professionals has gained impetus in light of the need to create more health professionals who remain workplace-ready and have relevant competencies to provide appropriate health care (Rispel & Bruce, 2015:119). In a study regarding nursing education reforms in South Africa, Rispel and Bruce (2015:119) found disparities in the building blocks of the national standards on accreditation, qualifications, curricula and faculty.

In South Africa, nursing education changes are regarded as a critical strategy for improving health personnel performance, and thus refining the operation of health systems. The two main reforms are having a baccalaureate degree to succeed as a professional nurse, and eliminating the current enrolled nurse programme in support of a general nurse with a three-year qualification (Blaauw *et al*. 2014:2). The authors contend that rising professionalism and changing to university-based education are significant elements of nursing education improvement. An important policy change happened in 1986 in South Africa, when all nursing colleges were mandated to become associated with university-based nursing departments, which positioned them formally within the higher education system. At a similar time, the new comprehensive 4-year curriculum was presented for training professional nurses in South Africa, which could be accomplished through a nursing college diploma or university degree.

Since South Africa's democracy in 1994, there has been a greater emphasis on nursing education as part of the transformation of both the health and higher education sectors. The review of nursing qualification has been encouraged by amendments within the profession and the urgency to line up nursing qualifications with the National Qualifications Framework (NQF) (Blaauw *et al*. 2014:2). The democratic era produced increased challenges for nursing that required to be considered in the amendments to the nursing qualifications. These consisted of larger service demands, expertise deficiencies, poor professional image, challenges enticing respectable recruits, an aging workforce and low staff self-esteem (Blaauw *et al*. 2014:2).

Prior to 1995, the (SANC) was the central regulator of nurse education and training qualifications, but thereafter, the introduction of the South African Qualifications Authority (SAQA) and the new National Qualifications framework (NQF) required the qualifications to follow broader Department of Education Policies. The revised NQF comprises of 10 levels instead of the previous eight, with each level providing an indication of the types of learning outcomes and evaluation criteria that are suitable (Blaauw *et al*. 2014:2).

An essential endorsement is the requirement for nursing colleges to be registered as higher education institutions, in agreement with the provisions made in the Higher Education Act (as amended in 2008). Nursing colleges are still affected by the same difficulties that typify higher education in South Africa, such as the need to ensure

excellence and a growing number of students, which requires an increase in the capacity of nurse educators (Seekoe, 2014:2). South Africa's mostly nurse-based health care structure necessitates nurses to have the capability and knowledge to address the country's burden of disease and meet its health care requirements. Internationally, there is acknowledgment of a health workforce disaster, which is characterised by serious staff shortages, imbalanced skills mix, staff exodus, uneven distribution of health care professionals, sub-optimal population health outcomes, inadequate advancement on the Sustainable Development Goals, and millions of individuals without access to suitable health services (DoH, 2018:7).

2.5 Self-directed learning

Malekian *et al.* (2016:157) described self-directed learning as a method in which learners accept the responsibility of recognising their learning needs, establishing goals, finding sources, developing and applying proper plans, and evaluating the outcomes of learning, both separately and cooperatively. The advantages of self-directed learning are that students gains more autonomy in their learning, have increased motivation, acquire lifelong learning skills, develop better self-control, and management. Bruce *et al*. (2011:96) contend that it is usual for a person's self-concept to switch from dependency to improved self-direction during the process of maturation. Adults have a deep psychological need to be self-directive and regulating, but may temporarily be dependent in certain situations. Self-regulation indicates that the student wants to make their own choices, take control of their life, and take responsibility for their own actions as an adult learner.

El Seesy, Sofar and Al-Battawi (2014:14) describe a self-directing student as somebody who accepts the responsibility for learning, defines their own learning wants, plans their own learning approach and applies self-evaluation. Self-directing students voluntarily participate in learning activities, act independently, and have the capacity and skill to organise, which is essential for effective learning. Self-directed learning means intentionally making judgements and selections based on a broad structure of knowledge and understanding with the objective of attaining goals, as well as regulating and critically reflecting on intellectual activities (El Seesy *et al*. 2017:14). Qamata-Mtshali (2012:16) reported that self-directed learning as a method or teaching strategy, results in learners taking control of their own learning and self-teaching through formal or informal settings in order to reach the set goals or objectives. A highly self-directed

learner is most closely related to their learning behaviour, which is characterised by independence, mental engagement, critical and analytical thinking, and deep comprehension of structures or meanings.

The formation of new knowledge cannot take place in a passive manner, it needs active and sincere dedication and involvement to the event. Constructivism is predominantly consistent with the idea of self-directed learning, and places importance on active analysis, self-determination and individualism in creating meaning. New knowledge is constructed on the existing knowledge that students bring to the learning setting. Learning is an active process in which the educators, as facilitators, are accountable for creating an environment that is favourable to building the student's individual understanding and expertise (Qamata-Mtshali, 2012:16; Schreurs & Dumbraveanu, 2014:37). Nurse educators are being challenged to engage with students in the classroom, which can result in deeper learning as well developing a personal interest in the learning process. As a result, active learning is learner-centred and results in the acquisition of deep learning (Miller, 2013:31). In learner-centred learning, the nurse educator works with students to motivate and empower them to develop learning skills and self-awareness, thus facilitating their learning. An important aspect of learner-centred learning is that the student is an active participant in the learning process and a lifelong learner (Jeffrey & Clark, 2019:12).

Qamata-Mtshali (2012:17) purports that the constructivist approach strongly emphasizes active participation of learners in the building of their knowledge through mental engagement and independence. It is believed therefore, that adults are inherently self-directed due to past experiences, motivation, competencies, ability and a willingness to learn independently. Self-directed learning is recognised as a vital component of learning to support nurses to achieve the challenges they encounter within the healthcare system. Nurse educators have a significant part to play in supporting student nurses to obtain the expertise for self-directed learning. Understanding the model of self-directed learning on the part of nurse educators will therefore greatly assist them in facilitating this with nursing students (Qamata-Mtshali, 2012:17).

Miller (2013:33) states that while nurse educators believe that learning is interactive and students should be engaged in the learning process, the teaching strategies are not consistent with their philosophies of teaching. Nurse educators are familiar with the importance of active learning, but conventional pedagogical habits are hard to break. Lectures and power point presentations are conventional passive teaching approaches used by nurse educators, which will not nurture analytical thinking and problem solving. Importance must be placed on learning and understanding crucial information rather than the concentration of content (Nabors, 2012:31). Learners require an improved understanding and high retention of subject matter when the information comprises active rather than passive learning, particularly when related to realistic situations. Students gain information in a meaningful context and relate it to previous knowledge to develop a more linked conceptual understanding. Using active learning approaches in the nursing classroom makes it possible to accommodate individual learning methods and enabling important lifelong learning habits. In addition, knowledge and involvement with active learning will enable sustained proficiency through self-directed learning that can be modified to any practice setting (Nabors, 2012:32).

2.6 Developing critical thinking

Critical thinking is central to providing safe, proficient and skilful nursing practice. During nurse training, clinical experience is regarded as the lifeblood of nursing education to promote critical thinking. This is not restricted to disciplines, knowledge or experience, but is advanced through reflection both on understanding and knowledge. Critical thinking has been considered an essential nursing competency, and has been a controversial issue whether critical thinking can be taught or learned. It is essential for nurses to advance critical thinking, problem solving and reflective practice techniques to enlarge their clinical decision-making skills (Sharma, 2017:1).

Nurse educators are being confronted to advance teaching strategies that improve students' critical thinking, problem solving and decision-making abilities. In order to achieve these skills, changes need to take place in the teaching and learning setting. Nurses need to think critically to deliver efficient care whilst dealing with the increase in role related responsibilities within the intricacies of the current health care settings. Nurses are confronted with a changing healthcare environment due to patients presenting with increased and intricate healthcare problems. An over indulgence in

teaching knowledge through teacher-centred approaches may result in ineffective teaching and learning (LaMartina & Ward-Smith, 2014:156, Roof 2012:24). Roof (2012: 25) stated that nurse educators cannot teach everything, which means that the focus needs to be on preparing students to think and become lifelong learners. The challenge of moving from content to critical thinking may assist in reducing content saturation while instilling cognitive processes.

Miller (2013:29) states that nursing practice requires a high level of thinking in order to meet the demands of the profession due to the rapidly changing healthcare environment and a more active patient population. This inability to move away from conventional pedagogy has been partly due to the educational background of nurse educators, who are unfamiliar with the principles of teaching and learning, and tend to teach using strategies that were used to instruct them. The changing healthcare environment and simple memorization of content will limit the learners' ability to develop critical thinking and problem solving skills. Conventional pedagogical practices are inadequate for promoting critical thinking and problem solving skills, which will be improved through active commitment in the learning process. Nurse educators can meet the challenge of supporting students' development of critical thinking by combining innovative approaches in the classroom (Miller, 2013:30).

2.7 Traditional learning versus learner-centred learning

According to Miller (2013:27), conventional pedagogy emphasises the use of memorization and recall, rather than developing critical thinking in students. The current teaching-learning models are similar to those used for decades to teach nurse educators in the practice of nursing. The use of conventional pedagogy has focused on the acquisition of cognitive gain and reinforces the student's role as a passive learner. The continued use of memorization on written assessment tools, such as examinations, further reinforces the importance of passive learning and information recall as being required to ensure the students' academic success (Miller, 2013:28). Miller (2013:29) reports that surface learning involves little interaction between the student and educator, while deep learning creates a collaborative relationship between them that allows the educator to function as a facilitator in the learning process.

The most commonly used pedagogy in Nigeria is the classical, conventional lecture or didactic method of teaching and learning, which does not nurture the right qualities in nursing students nor communicate a lasting consideration for learning. The traditional lecture method can lead to learner burden, as it is usual for instructors to embrace too much information in too small a time period. It affords little prospect for learner independence, which can lead to monotony, and has very limited efficiency in teaching anything other than information (Osinubi & Ailoje-Ibru, 2014:2055).

The challenge for the nurse educator is to afford appropriate structure upon which the student can build understanding and knowledge, and to act as an organiser rather than knowledge-bearer throughout the process. Students need to become actively involved in their learning experience, rather than inactive receivers of information (Chambers, *et al.* 2013:110). Qamata-Mtshali (2012:19) reported that traditional methods of instruction focus on teaching and pay very little attention to learning, where most of what is taught in a classroom setting is forgotten, and much of what is remembered is irrelevant, with only a limited amount of it being retained. Those who have reformed and adopted the progressive education practices, which embrace a more holistic approach that focus on individual student needs and self-expression, advocate that traditional teacher-centred methods should be abandoned.

Qamata-Mtshali (2012:65) supported the necessity for change in nursing education teaching approaches, without discarding the use of conventional methods. This would be done to support those students who might not be prepared to participate initially in self-directed learning. According to Inkelas *et al.* (2013:3), the effectiveness of learner-centred practices has been well documented in primary, secondary and post-secondary educational settings. These pedagogies are associated with several desirable undergraduate student learning outcomes, such as developing students' professional competencies, content knowledge, analytical thinking and problem-solving abilities. There remains a positive relationship between faculty emphasis on deep approaches to learning i.e. approaches that emphasize integration, synthesis and reflection, and students' levels of personal and intellectual development. The observed relationships across a variety of important student learning outcomes illustrated the need for professional training programs that support constructivist or learner-centred teaching paradigms. The learning facilitator should provide students with different and

unconventional options to their existing manner of thinking and behaving. Adult students, who are engaged in learning where they can challenge underlying assumptions, critically reflect on alternatives and test for hypotheses about current practices and behaviour, are autonomous, self-directed students (Bruce *et al*. 2011: 98).

According to Mulaudzi and Chyun (2015:21), in higher educational institutions, the use of information and communication technology (ICT) is essential to accommodate learners who are digital citizens, highlighting the need for diverse educational teaching methods. These learners prosper and obtain knowledge using graphic technology rather than the traditional methods of word only. Nursing schools are now introducing advances in teaching and learning by integrating a blended learning setting. This encourages critical thinking skills and innovative ideas amongst students, thereby augmenting their learning capabilities and preparing them for their working life. Discovery methods of teaching and learning require a favourable and supportive environment, and a change to the educator being regarded as a consultant. The nurse educators remove themselves from the authority-based instructions and adopt the new role of facilitators, thus the flipped classroom was created (Mulaudzi & Chyun, 2015:22).

There is a growing interest in learner-centred learning in higher education as this would lead to improved student success and job satisfaction for nurse educators. The necessity to “cover” content of the programme has led to the neglect of ensuring that the programme outcomes are being achieved. This has led to incorrectly associating a good programme with a rigorous programme, rather than a programme in which students can learn from (Wright, 2011:92-93).

The consequence is that when students are confronted with an insurmountable quantity of programme content, they resort to memorization rather than conceptualization, using a “binge and purge” method to examination. In such a setting, the successful student is one who has learned to replicate information required by the educator. Students therefore need to become the centre of the educational initiative, and their intellectual and emotional learning experiences must guide all decisions as to what and how it is done (Wright, 2011:92-93). Most learning accomplishments for the class are traditionally carried out by the teacher, such as selecting and organising the content,

deducing and applying the concepts, and appraising student learning, while the student's efforts are focused on recording the information (Wright, 2011:92-93).

The accountability for learning therefore moves to the student in a learner-centred setting, with neither students nor educators being skilled at creating this shift. The responsibility is on the faculty to restructure and conduct the course in a way that students are required to hold up their end of the educational agreement. Learner-centred environments promote accountable sharing of power and control with learners, whereby they exercise some control and individuality with respect to their learning process. Empowering and sharing control with learners regarding the learning process can positively affect their motivation for engagement in learning (Jeffrey & Clark, 2019:12).

According to Miller (2013:25), the traditional pedagogical approach in nursing education places an emphasis on the educator as the subject-matter expert, and the student in a dependent learner position. As subject-matter experts, nursing educators have felt the pressure to impart all their knowledge about their nursing specialization to the student. Miller (2013:26) states that outdated curricula in nursing education have focused on surface learning and that with the number of speciality areas growing; nurse educators have added content to the curriculum based upon the changing role of the nurse. The addition of content has led to the oversaturation of nursing curricula, and fails to challenge the student to learn and apply new ways of thinking and learning.

According to Kaddoura (2011:4), traditional educational curricula are didactic, teacher-centred and organised around subject areas or disciplines. The nurse educator provides organised packages of theoretical or practical knowledge complete with analysis, understanding and deductions, while students are expected to take notes, memorise and master the conveyed material. It has been claimed that outcomes of conventional learning fail to display a patient-orientated, critically thinking nurse who is capable of appropriate judgement making in practice. There are certain benefits for lecturing for beginner students who need instruction on new information and how to use it. When lecture-based teaching is used in combination with active teaching strategies, such as analytical questioning and group discussion, it supports students to attain knowledge (Kaddoura, 2011:4).

2.8 Innovative teaching strategies

Nurse educators are repeatedly being challenged to advance innovative teaching approaches that improve students' critical thinking, problem solving and judgment making abilities (Oyelana *et al.* 2018:118). To accomplish these abilities, alterations need to take place in the teaching and learning setting (Bimray *et al.* 2013:117). Ellis (2015:67) stated that diverse learner-centred teaching strategies, such as group work, role play, class presentation, quizzes, reflective journaling, case studies and discussions, have been found to increase grades and foster deeper understanding in nursing students. In learner-centred classrooms, learners reflect on their learning and knowledge as well as their approaches for learning to make themselves more self-directed and regulated, as well as being lifelong learners (Jeffrey & Clark, 2019:13). The struggle to apply innovative teaching techniques and thoughts in the practice of nursing is well documented in the literature. Nurse educators frequently claim to be learner-centred philosophically, but their reported teaching practices may in reality be more teacher-centred (Ellis, 2015:67).

The learner-centred method is an approach that involves active learning, collaborative learning and inductive learning. In active learning, students resolve problems, answer questions, articulate questions on their own, deliberate, describe, debate or brainstorm during teaching and learning sessions (Schreurs & Dumbraveanu, 2014:39). In collaborative learning, learners work in groups on problems and assignments under conditions that promise both positive inter-dependence and separate responsibility. In inductive teaching and learning, learners are presented with challenges and learn the programme material in the framework of addressing these challenges. Inductive methods include inquiry-based learning, case-based instruction, problem based, project based and discovery learning (Schreurs & Dumbraveanu, 2014:39). Daniels *et al.* (2015:2) indicated the benefits of case-based education, such as enabling the students' active involvement while providing realistic situations to which theoretical knowledge is applied. Bvumbe and Mtahali (2018:4) stated that as student populations and methods of learning continue to increase in variety, nurse educators and management must be flexible and receptive to effective and innovative teaching solutions to meet multifaceted market demands.

2.9 Learner-Centred Framework Model

The Learner-Centred Model (LCM) is a theoretical model that focuses on the learner as the centre of instructional decision-making. The emphasis is on the importance of understanding each learner's unique characteristics and needs, and their particular qualities of learning that emerge. The LCM incorporates the best qualities of both learner-centred approaches and those that emphasize knowledge acquisition and content (McCombs & Miller, 2007:22). It is grounded in constructivist education approaches, where the student has a dynamic role and is the focus of the learning process. Learners vigorously create their individual knowledge in the learning process, where they try to find significance in their understandings (Allybokus, 2015:34). Constructivist theorists contend that knowledge cannot be forced from others, but is formed inside learners, with the rational persons having no choice but to build what they need to know on the foundation of their own knowledge (Allybokus, 2015:34).

Learner-centred education arose from a constructivist learning philosophy that characterises a counter movement to conventional teacher-centred educational practices. Learner-centred education views knowledge through lenses of societal and interpersonal processes, and prioritizes the students' distinct practices of creating personal knowledge and intelligence rather than memorising course content (Moate & Cox, 2015:382). In this model learner-centred education is a learning system that considers the learner as an active, inquisitive being who strives to acquire knowledge about their surrounding world. The LCM comprises of a selection of resources, focused reflections and evaluation tools that aid teachers and administrator's efficiency, as well as adaptations at the singular and tertiary levels (Alipio, 2014:33).

Figure 1.1 illustrates the LCM that was used as a framework for this study. It indicates how the learners are located within the context of learning.

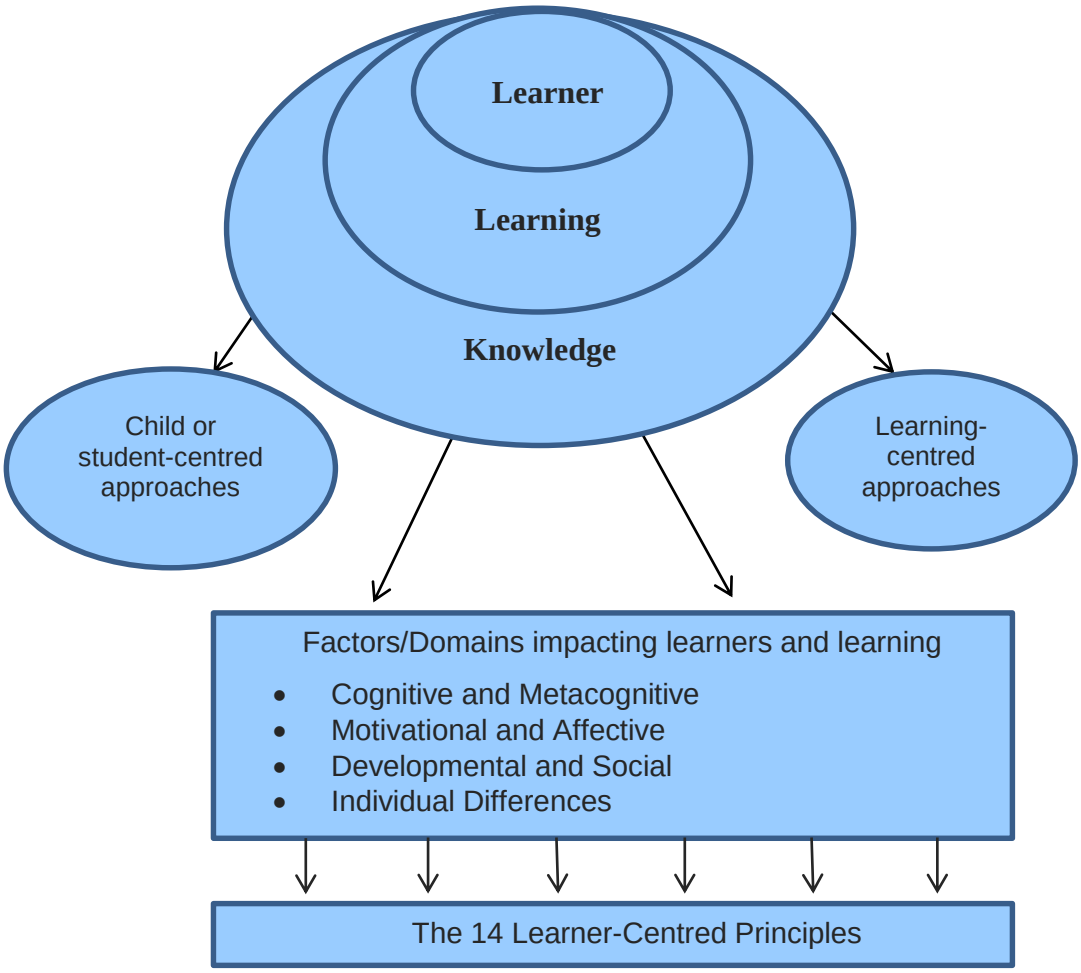


Figure 1.1: Learner-Centred Model: A Holistic Perspective

The LCM offers a structure for sharing of power and control with students, and creating constructive relationships and networks that are important for high inspiration and accomplishment. In this model the learner has control and power to change their learning opportunities in order to achieve their goal through self-directed learning. The model produces a progressive climate by spontaneously involving students and other persons related to the academic community, while discouraging adverse societal behaviours and improving individual development (McCombs & Miller, 2007:22). In this model learners are incorporated into the instructive decision-making process, and their varied viewpoints are reassured and valued during learning practices. The differences amongst learner's beliefs, capabilities, styles, developmental phases and

wants are accounted for and valued. The learners are considered as co-creators in the teaching and learning process, as persons with thoughts and concerns that merit consideration and reflection (McCombs & Miller (2007:25).

McCombs and Miller (2007:25) reports that the LCM domains consists of the following four principles:

- **Cognitive and Metacognitive:** the academic competencies of the learners and how they enable the learning process.
- **Motivational and Affective:** the roles played by incentive and emotional states in learning.
- **Developmental and Social:** the effect of diverse aspects of learner development and the significance of interpersonal relationships in learning and adjustment.
- **Individual Differences:** how individual differences affect learning, how teachers, students and administrators adjust to learning diversity, and how standards and assessments can best support the differences in learners.

An important understanding that arises from a review of the four principles is that for educational systems to serve the needs of all learners, there must be an emphasis on the individual learner as well as an understanding of the learning process. McCombs and Miller (2007:25) state that the learner-centred principles confirm that learning is nonlinear, recursive, non-stop, multi-faceted, rational and natural in humans. Learning is improved in situations in which learners have helpful relationships, a sense of possession and control over the learning process, and can learn with and from each other in safe and trusting environments. According to Modebelu and Duvie (2012:150), the weaknesses of the teacher-centred methods have called for a shift to the Learner-Centred Model, in which learners occupy a prominent position and become the pivot upon which teaching and learning revolves.

Moate and Cox (2015:382) reported that educators employing a learner-centred approach foster supportive relationships and cultivate a safe learning setting by diffusing power differentials between the teacher and the learner. Educators diffuse power differentials through purposefully designing opportunities for learners to become active in the classroom and utilizing their individual experiences and viewpoints and treating learners as partners in the learning process. Learner-centred

instruction supports collaboration, which helps learners develop problem solving abilities, challenge their belief through honouring many view points in the classroom and construct deeper personal understanding of course content. Incorporating flexible and diverse teaching practices is a key aspect of facilitating a learner-centred classroom environment so that a wide range of learner preferences can be satisfied (Moate & Cox 2015:382).

The LCM is considered as a suitable framework for this study due to its ability to:

- Inspire active contribution of learners in the teaching and learning process.
- Inspire active participation and collaboration amongst learners.
- Inspire and support the improvement of skills.
- Inspire the learner to improve and use their own creativities.
- Discourage memorisation learning and inactiveness in the classroom on the part of the learner.

The LCM theoretical framework helped guide the research by establishing the rationale for placing learner-centred learning at the core of this study. It assisted the researcher in reviewing the underlying theories, methodological techniques and served as a basis for developing a research instrument for data collection.

2.10 Conclusion

The literature illustrates that nurse educators globally experience challenges related to applying learner-centred nursing education, with numerous barriers having impacted on self-directed learning and critical thinking in student nurses. The situation in South Africa is compounded by the fragmentation in nursing education and the need for it to meet the requirements of higher education. Nurse educators continue to use outdated teacher-centred approaches of teaching and learning in nursing education in South Africa, specifically in KwaZulu-Natal Province.

CHAPTER 3: METHODOLOGY

3.1 Introduction

This chapter aims to illustrate the research methodology that guided the study. It focuses on the research design, the population, the research instrument, validity and reliability of the research instrument, the data collection procedure, method of data analysis and ethical concerns. The research design and methodology is considered in this chapter to attain the following objectives:

To determine the nature and extent of the implementation of learner-centred approaches in nursing education in the current teaching practice.

To explore possible factors influencing teaching practice and learner-centred nursing education.

To identify the main factors influencing teaching practice and learner-centred nursing education.

3.2 Research Design

Grove *et al.* (2013:43) defined research design as an outline for maximising control over influences that could hamper with the study's anticipated outcome. The type of design guides the selection of a population, sampling procedure, techniques of measurement, strategy for data collection and analysis. Bertram and Christiansen (2015:40) concurred that a research design is plan how the researcher will systematically collect and analyse data that is needed to answer the research question.

3.2.1 Quantitative Research Design

Quantitative research design is a formal objective, organised process applied to obtain numerical data for understanding viewpoints of the world. It is therefore used to obtain "quantifiable information about the world" (Grove *et al.* 2013:23). Quantitative researchers gather experimental evidence that is rooted in objective realism and gathered directly or indirectly through the senses. Evidence for the study in the positivist paradigm is gathered according to a recognised plan, using organised instruments to collect required information. This assisted the researcher to collect data

to answer the “what”, “where”, “why”, and “how” of the factors influencing learner-centred nursing education at KZNCN (Polit & Beck, 2014:16).

The positivist paradigm was suitable for this study since data was gathered using a questionnaire from nurse educators regarding learner-centred nursing practice, and the data was analysed statistically. Apart from the biographical information, the questionnaire contained mainly closed-ended questions. The last question in the questionnaire was open-ended and enquired from the respondents, if there were any other barriers, to the implementation of a learner-centred instruction in nursing education. (Polit & Beck, 2014:16).

3.2.2 Cross-sectional descriptive study design

A descriptive design can be used to advance theory, recognise problems with existing practice, make judgements or conclude what others in comparable positions are performing (Grove *et al.* 2013:215). Cross-sectional designs examine groups of subjects in various stages of development, trends, patterns and variations in the occurrence across phases. The supposition is that the phases are part of the method that will evolve over time. Choosing respondents at different points in the process affords significant information about the entirety of the process, even though the same respondents are not observed through the whole process (Grove *et al.* 2013:220). In cross-sectional designs, data is gathered at one point in time and are suitable for defining occurrences at a fixed point. Cross-sectional plans can be used to research time related phenomena, but they are less convincing than longitudinal designs. Cross-sectional designs are efficient, but they present problems for deducing modifications over time (Polit & Beck, 2014:162).

A quantitative, non-experimental descriptive survey was commenced to produce evidence on factors influencing learner-centred nursing education and teaching practices at nursing campuses in KwaZulu-Natal. Data was gathered by means of a self-administered questionnaire which was distributed to the participants by the researcher.

3.3 Research Setting

The setting is the locality where a study is conducted. There are three common settings for conducting nursing research: natural, partly controlled and extremely

controlled. Descriptive and correlational quantitative studies are often conducted in natural settings (Grove *et al.* 2013:373). The research setting for this study is naturalistic. The KZNCN is the Head Office to 25 provincial nurse training campuses, which consists of ten campuses and 15 sub-campuses, situated throughout KZN. Respondents were from the ten campuses of the KZNCN offering the four-year diploma in nursing programme. The ten campuses are located throughout the province of KwaZulu-Natal and are both in urban and rural areas.

3.4 Population

Population includes all the elements (individuals, objects, or substances) that meet certain selected criteria in a research study. The population would depend on the sample criteria and the similarity of respondents in various settings. The researcher needs to determine which population is available and can be best characterised by the study sample (Grove *et al.* 2013: 44).

The population for this study was a total of 220 nurse educators teaching theoretical and clinical nursing aspects, working at the ten campuses offering the four-year diploma in nursing programme within the KZNCN.

3.5 Sampling

The sampling criteria define the target population, and the sample is obtained from the available population within the target population. After the study is finished, the results are generalised from the sample to the available population and then to the target population if the study has a representative sample (Grove *et al.* 2013: 352).

For the purpose of this study, no sampling was done due to the relatively small number of nurse educators (N=220, n=158) working at the campuses (N=10, n=10), with a response rate of 72%. The nurse educators were an all-inclusive sample.

A study may have inclusion or exclusion sampling criteria or both. Inclusion sampling criteria are characteristics that a subject or portion have to be part of the target population. Exclusion sampling criteria are features that can cause an individual or element to be omitted from the target population. For a sample to be representative, it must be alike to the target population in as many ways as possible. It is especially

important that the sample be representative relative to the variables that are being studied (Grove *et al.* 2013: 353).

The inclusion criteria for nurse educators in the study were:

- Qualified and registered as a nurse educator.
- Employed full time as a nurse educator at a selected campus in KwaZulu-Natal.
- Currently involved in the teaching and facilitation of nursing education at a selected campus in KwaZulu-Natal.

The exclusion criteria for nurse educators not be incorporated in the study were:

- Non availability due to absence from work due to illness or study leave.

3.6 Research Instrument

According to Grove *et al.* (2013:425) a questionnaire is a self-report form intended to obtain information that can be acquired from respondent's scripted reply. The information obtained through questionnaires is comparable to information acquired by interview, but the questions tend to have less intensity. The respondents are unable to expand on the responses or request for questions to be explained, and the data collector cannot use questioning approaches.

The learner-centred research instrument which consisted of 22 items was developed using the current literature and previous research instruments used to gather information on learner-centred nursing education approaches. Sections A, B, and C of the research questionnaire consisted of close-ended questions, in which the response alternatives were pre-specified and section D consisted of close-ended questions and one open-ended question. The intention of such questions was to ensure comparability of responses and to enable analysis (Polit & Beck 2014:185).

Table 3.1: Research instrument

Objectives		Method	Analysis
1	To determine the nature and extent implementation of learner-centred approaches in nursing education in the current teaching practice.	Questionnaire: Quantitative data	Descriptive analysis
2	To explore possible factors influencing teaching practice and learner-centred nursing education.		
3	To identify main the factors influencing teaching practice and learner-centred nursing education.		

Section A: Demographic profile which consisted of 7 items

Section B: Serves to collect information regarding the nature and extent of the implementation of learner-centred approaches in nursing education in the current teaching practice. This consisted of 11 items.

Section C: Serves to explore the possible factors influencing teaching practice and learner-centred nursing education. This consisted of 1 item.

Section D: Serves to identify the main factors influencing teaching practice and learner-centred nursing education. This consisted of 3 items.

3.7 Validity

The validity of an instrument determines the degree to which it really reflects or is able to determine the construct being scrutinised. There are four major kinds of validity: content validity, face validity, criterion validity and construct validity. In this study, the anticipated content was determined by content and face validity (Grove *et al.* 2013:393).

3.7.1 Content validity: Content validity examines the degree to which the measurement method contained all the main elements pertinent to the construct being measured. Grove *et al.* (2013:394) assert that researchers need to describe the procedures used to develop or select items for the instrument that represent the domain or the construct. Polit and Beck (2014:459) stated that it was becoming progressively common to use a panel of substantive experts to assess and document for the content validity of new instruments. Content validity

examined the extent to which the measurement method contains all the main elements to the construct being measured (Grove *et al.* 2013:394). This evidence was obtained from the following three sources: the literature, representatives of the pertinent populations and content experts to ensure that all content was covered within the research questionnaire.

3.7.2 Pilot study: For the purpose of this study the questionnaire was piloted on five nurse educators working at a campus within KZNCN. These nurse educators did not form part of the principal study. The aim of piloting the instrument was to identify inconsistencies and lack of clarity in the questions. A fully informed consent was attained from the respondents engaging in the pilot study. Confidentiality was maintained throughout the process of the pilot study. These nurse educators were requested to complete the questionnaire. There were no misconceptions by the respondents and the questions were easily understood. The results of the pilot study were similar to the research findings. The research instrument was scrutinised by a colleague who had experience in learner-centred nursing education, the supervisor and suggestions from the statistician. Suggestions from these experts were incorporated into the research instrument.

3.7.3 Face validity: Face validity verifies that the instrument looks like it is valid or gives the appearance of measuring the construct it was supposed to estimate. Face validity is a subjective evaluation that might be made by the researcher or possible respondents. Because this is a subjective judgement with no strong rules for creating the conclusion, this is deemed to be the weakest form of validity (Grove *et al.* 2013:394).

3.8 Reliability

The reliability of an instrument represents the consistency of the measures attained of a characteristic, element or situation in a study. The greater the reliability or consistency of the measure of a particular instrument, the less random error in the measurement method if the same measurement scale was administered to the same individuals on two different occasions, the measurement was reliable if the individual responses to the items remain the same (Grove *et al.* 2013:389).

When data collectors observe an identical event and record their interpretations on a carefully designed data collection instrument, the measurement would be consistent if the recordings from the data collectors are equivalent. The equivalence of their results would indicate the reliability of the measured technique. If the responses vary each time a measure was performed, there is a chance that the instrument is reliable, meaning that it yields data with a large random error. In this research reliability was achieved by piloting the questionnaire before using it. All measurement techniques contain some random error, and the errors might be due to the measurement method used, the study participants, or the researchers gathering the data (Grove *et al.* 2013:389).

Reliability occurs in degrees and was typically conveyed as a form of correlation coefficient, with 1.00 indicating perfect reliability and 0.00 representing no reliability. When using the test-retest, the closer the reliability coefficient is to 1.00, the more stable the measurement method (Grove *et al.* 2013:389).

3.9 Data Collection

Once ethical approval (Annexure 2) was obtained and permission from the relevant stakeholders, the researcher telephonically made an appointment with the Campus principals of the ten nursing campuses, for a suitable date and time for the distribution and collection of the survey questionnaire.

The researcher visited each nursing campus and gave the nurse educators information regarding the research. The researcher thereafter handed out the questionnaire to all the nurse educators and obtained written consent and explained the completion and collection process of the questionnaires.

All questionnaires were numerically encoded for each campus in order to maintain anonymity of the research respondents. An instruction sheet and an information letter (Annexure 5) were attached to each questionnaire. The instruction sheet gave the respondents a clear guideline on how to go complete the questionnaire and the information letter gave the respondents details about the aims of the study. The completed questionnaires were collected by the researcher stored in a locked cupboard for a period five years.

3.10 Data analysis

The main aim of data analysis was to provide results of the study conducted (Polit and Beck 2014:215). The closed-ended questions were coded into a numerical format essential for SPSS (version 21). The statistical data obtained assisted the researcher in gaining more information and a better understanding of learner-centred teaching approaches across the ten campuses in KwaZulu-Natal. Data was analysed descriptively using SPSS (version 21) with assistance from a statistician. Various tests were used to analyse the data, such as number, percentage, means, standard deviations, Chi-square goodness-of-fit, Chi-square test of independence, binomial test, t-test and analysis of variance (ANOVA). The respondents comments were analysed and organised into common categories (Grove *et al.* 2013:281).

Objective 1: Demographic characteristics

Section A named demographic data consisted of items 1-7. Descriptive statistics comprising means and standard deviations were used to describe and summarize data where appropriate and the frequencies were represented in tables or graphs (Grove *et al* 2013:550).

Objectives 2 and 3: Implementation of learner-centred practice and factors influencing teaching practice and learner-centred nursing education

Section B named implementation of learner-centred approaches in nursing education consisted of items 8-18.

Section C named factors influencing teaching practice and learner-centred nursing education consisted of item 19.

The Chi-square goodness-of-fit test was used on a categorical variable to test whether any of the response selections are selected significantly more/less often that the others (Polit & Beck 2014:235). This test was applied to analyse data obtained for questions 11, 12, 14, 15, 16, 17 and 18 as they required the respondents to choose responses from “rarely, sometimes, frequently and most of the time”.

The Binomial test was also used to test if a significant proportion of respondents select one of a possible two responses. This could be extended when data with more than

two response options is split into two distinct groups. This test was applied to question 8, in order to assess if the respondents had exposure to learner-centred teaching.

Cronbach's alpha score was used to analyse the ordinal items that constituted the research questionnaire. This test can range from 0.00, indicating no internal consistency or reliability, to 1.00, indicating perfect internal reliability with no measurement error. Questions 14, 16 and 17 produced a score of 0.78, 0.82 and 0.87 respectively, thus indicating a high degree of acceptable and consistent scoring for the research**.**

The Chi-square test of independence was used on cross-tabulations to check whether a noteworthy relationship subsists between the two variables denoted in the cross-tabulation (Polit & Beck 2014:235).

The Pearson's correlation was used to measure how variables or rank orders are related. Pearson's correlation coefficient is a measure of linear associations (Grove *et al* 2013:570). This test was applied to analyse data obtained for question 9 and 11.

Objective 3: Non-implementation of learner-centred nursing education

Section D named non-implementation of learner-centred nursing education consisted of 3 items 20-22.

The Wilcoxon signed rank test which is a non-parametric test that was used to test whether the average value is significantly different from a central score. This was applied to Likert scale questions and used in the comparison of the distribution of the two variables. This test was applied to analyse data obtained for questions 13, 19, 20 and 21, as this required the respondents to choose responses from "strongly agree, agree, disagree and strongly disagree".

3.11 Ethical considerations

Ethical approval was obtained from the Institutional Research Ethics Committee (IREC reference number: REC70/17) (Annexure 2) of the Durban University of Technology, permission to conduct the study was obtained from Department of Health Kwazulu-Natal, the principal of KZNCN and the principals of the ten campuses.

Ethical problems are concerned with dilemmas and conflicts that arise over the correct way in which the research was conducted. Some of the ethical principles that guided the study were:

Protecting the rights of respondents: Human rights are assertions or demands that have been warranted in the eyes of an individual or by a group of individuals. Researchers have an ethical responsibility to protect the rights of human research respondents (Grove *et al.* 2013:163).

Autonomy: The principle of autonomy holds that because humans are capable of autonomy, they should be treated as independent agents who have the freedom to conduct their lives as they choose without external controls (Grove *et al*. 2013:164). It also means that individuals have the right to ask questions, to refuse to provide information and to pull out from the study. A person's right to self-determination includes freedom from coercion. Coercion includes explicit or implicit threats of penalty from failing to partake in a study or undue rewards from assenting to participate (Polit & Beck 2014:84). The respondents were informed that they are free to participate in the research and they can withdraw from the research at any time. There were no rewards for their participation. The questionnaire was for research purposes only and the respondents were anonymous throughout the study.

Justice: The right to fair treatment I was based on the ethical principle of justice, and holds that each person should be treated fairly (Grove *et al.* 2013:173). The selection of a population and their specific subjects to study should be fair, and the risks and benefits of the study should be equally distributed on the basis of the subject's efforts, requirements and privileges (Grove *et al.* 2013:173). Respondents should be nominated for reasons directly related to the problem being studied and not for their easy accessibility, conceded position or their manipulation. The researcher approached all the nurse educators from ten nursing campuses within KwaZulu-Natal to participate in the study.

The right to fair treatment: This right entails that people who decline to participate in the study were treated fairly, and there was no discrimination whatsoever on the

part of the researcher (Grove *et al.* 2013:173). The survey was conducted in a courteous, tactful and non-discriminatory manner.

The right to privacy: Researchers must ensure that their research was not more invasive than it needed to be and that privacy was conserved. Respondents have the right to know that any data they provide would be retained in strict confidence (Polit & Beck 2014:85). In order to protect the anonymity of the nurse educators, they were granted the option not to divulge their names on the questionnaire. To further protect their identity of the respondents, data was stored in the researcher's private computer at home which was password protected.

Beneficence: The ethical principle of beneficence states that one should do good and above all, do no harm. Therefore, researchers must conduct their studies to safeguard respondents from discomfort and injury, and try to bring the greatest possible balance of benefits in comparison to harm (Grove *et al.* 2013:174). In this study the challenge was that the respondents may experience time constraints due to their heavy work load schedules. Respondents may also experience some degree of anxiety and embarrassment when responding to certain questions. The researcher counteracted these by ensuring that the respondents had the right to full disclosure of information, enabling him or her to make an informed decision to participate in the study. The respondents were given the opportunity to withdraw from the study at any given time, without suffering any consequences or threat of intimidation. These principles were clearly communicated to all the respondents in the information letter that was included with every questionnaire. The researcher ensured that the respondents signed informed consent and voluntary participation forms, in order to overcome the idea of being exploited.

Protecting the rights of the institutions: Ethical approval to conduct the research study was acquired from the Institutional Research Ethics Committee of the Durban University of Technology. The approval to conduct the study was obtained from the Kwazulu-Natal College of Nursing and the Department of Health. Permission was also obtained from the principals of the following nursing campuses: Addington, Charles Johnson Memorial, Edendale, Greys, Madadeni,

Ngwelezane, Prince Myshiyeni Memorial, Portshepstone and R.K. Khan Nursing Campus.

The data was stored in the researcher's private computer at home, which is password protected, and known only to the researcher. Written data will be stored for a period of five years by the researcher, after which it will be shredded and destroyed.

3.12 Conclusion

This chapter discussed the research design and methodology and the compilation of the questionnaire as the research instrument to conduct the study. The validity and reliability of the tool to gather relevant data was discussed. The method of data collection and the ethical principles incorporated into the research was explained. Methods of data analysis to obtain the results from the captured data were included in this chapter. Chapter four presents the findings of the study.

CHAPTER 4: PRESENTATION OF RESULTS

4.1 Introduction

The results of the study are presented in this chapter. The questionnaire was the main tool that was used to gather data from nurse educators at the ten campuses of the KZNCN. The purpose of the study was to investigate the factors influencing the implementation of learner-centred approaches in nursing education in KwaZulu-Natal.

The objectives of the study were firstly to determine the nature and extent of the implementation of learner-centred nursing education in the current teaching practice, secondly to explore possible factors influencing teaching practice and learner-centred education and finally to identify the main factors influencing teaching practice and learner-centred nursing education. The results are presented as descriptive statistics in the form of graphs, cross tabulations and other figures for the quantitative data that was collected.

4.2 The sample

The population of the study comprised 220 nurse educators from the ten campuses within the KZNCN. One hundred and fifty-eight questionnaires were received, with a response rate of 72%.

4.3 Section A: Demographic characteristics

The demographic data analysed related to gender, age, ethnicity, highest educational qualification and year when qualification was obtained.

4.3.1 Gender

Table 4.1 depicts the gender of the 158 respondents, who completed the questionnaire, 9.5% (n=15) were males and 90.5% (n=143) were females.

4.3.2 Age

The respondents were categorized into five age groups, namely 25-30 years, 31-40 years, 41-50 years, 51-60 years and 61-65 years. Most of the respondents 87.3% (n=138) were above 40 years of age and 11.4% (n=18) were below 40 years of age.

Of all the respondents 0.6% (n=1) were in the 25-30 year age group, 10.8 (n=17) were in the 31-40-year age group, 24.7% (n=39) were in the 41-50 year age group, 50.6 % (n=80) were in the 51-60 year age group, 12% (n=19) were in the 61-65 year age group and 1.3% (n=2) did not answer this question. The age distribution is illustrated in Table 4.1.

4.3.3 Ethnicity

The majority of the respondents were black and comprised of 72.8% (n=115) of the study population. Indians made up 19.6% (n=31), Coloureds 4.4% (n=7), Whites 3.2% (n=5) as depicted in Table 4.1.

Table 4.1: Participant distribution by gender, age and ethnicity

Variable	Characteristic	Percentage	Frequency
Gender	Males	9.5	15
	Females	90.5	143
Ethnicity	Blacks	72.8	115
	Indians	19.6	31
	Coloureds	4.4	7
	Whites	3.2	5
Age	25-30	0.6	1
	31-40	10.8	17
	41-50	24.7	39
	51-60	50.6	80
	61-65	12	19
	Missing values	1.3	2

4.3.4 Highest educational qualification

The majority 61.4% (n=97) of the respondents possessed a Bachelors degree in Nursing. The qualifications of the other respondents were, Masters in Nursing 34.8% (n=55), Diploma in Nursing 3.2% (n=5) and Doctorate in Nursing 0.6% (n=1). The qualifications of the respondents is depicted in Figure 4.2.

Table 4.2: Highest educational qualification

Variable	Characteristics	Percentage	Frequency
Highest educational qualification	Bachelors degree	61.4	97
	Masters in nursing	34.8	55
	Diploma in nursing	3.2	5
	Doctorate in nursing	0.6	1

4.3.5 Qualification obtained

The respondents were categorised into five groups in terms of when they qualified, namely less than 5 years, 6-10 years, 11-15 years, 16-20 years and more than 20 years. Most respondents 69.6% (n=110) qualified below 15 years and 29.8% (n=47) were qualified above 16 years. Of all the respondents, 25.9% (n=41) qualified less than 5 years, 24.7% (n=39) qualified between 6-10 years, 19% (n=30) qualified between 11-15 years, 15.2% (n=24) qualified between 16-20 years, 14.6 (n=23) were qualified above 20 years and 0.6% (n=1) did not specify. Table 4.3 illustrates when the respondents obtained their qualification.

Table 4.3: Qualification obtained

Variable	Characteristics	Percentage	Frequency
Qualification obtained	< 5 years ago	25.9	41
	6-10 years ago	24.7	39
	11-15 years ago	19	30
	16-20 years ago	15.2	24
	> 20 years ago	14.6	23
	Unspecified	0.6	1

The following aspects of the nurse educators' teaching experience were analysed, namely the number of years of teaching experience, the nursing programmes taught, exposure to learner-centred teaching, understanding of learner-centred teaching and a description of their current teaching practice.

4.3.6 Years of teaching experience

The respondents teaching experience was categorized into six groups, namely 1-5 years, 6-10 years, 11-15 years, 16-20 years, 21-30 years and 31-35 years. Most respondents 89.9% (n=142) had below 20 years of teaching experience and 8.9% (n=14) had above 21 years. Of all the respondents, 11.4% (n=18) had between 1-5 years of teaching experience, 22.8% (n=36) had between 6-10 years of teaching experience, 39.2% (n=62) had 11-15 years of teaching experience, 16.5% (n=26) had between 16-20 years of teaching experience, 5.1% (n=8) had between 21-30 years of teaching experience, 3.8% (n=6) had between 31-35 years of teaching experience and 1.2% (n=2) did not answer this question. Table 4.4 illustrates the experience of the nurse educators in teaching practice.

Table 4.4: Years of teaching experience

Variable	Characteristics	Percentage	Frequency
Experience in teaching practice	1-5 years	11.4	18
	6-10 years	22.8	36
	11-15 years	39.2	62
	16-20 years	16.5	26
	21-30 years	5.1	8
	31-35 years	3.8	6
	Unspecified	1.2	2

4.3.7 Nursing programme taught

The majority of the respondents were involved in the teaching of nursing in the four year Diploma in Nursing and Midwifery programme under regulation (R425). Fifty point six percent (n=80) taught in the first year, 51.9% (n=82) taught in the second year, 48.7% (n=77) taught in the third year and 30.4% (n=48) taught in the fourth year. Four nursing campuses offered the two-year Diploma in Nursing, which was the bridging programme (R683). Thirty-two point nine percent (n=52) of the respondents taught in the first year and 31.6% (n=50) taught in the second year of training. Five of the nursing campuses offered the one-year Diploma in Midwifery regulation (R254) in which 26.6% (n=42) of the respondents were involved in teaching. Seventeen point seven percent (n=28) of the respondents were also involved in the teaching of the

one-year Diploma in Clinical Nursing Science regulation (R212). Figure 4.1 depicts the level of nursing programme taught.

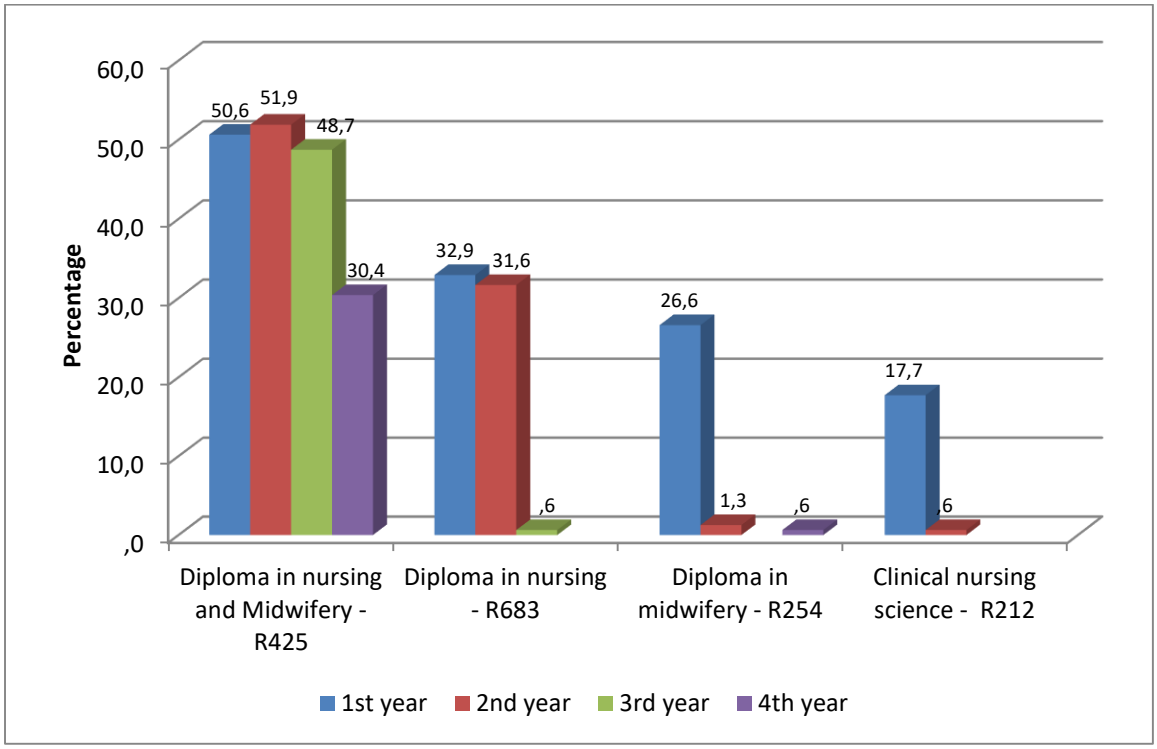


Figure 4.1: Nursing programme taught

4.4 Section B: Implementation of learner-centred approaches in nursing education

The analysis of the learner-centred teaching practices related to the preferred learning styles of learners, encouragement of self-directed learning during teaching, enhancement of the cognitive aspects of learning, enhancement of social interactive aspects of learning, encouragement of reflection during teaching and assessment and evaluation strategies.

4.4.1 Learner-centred teaching

The study revealed that 54.4% (n=86; p<.0005) of the respondents reported that they did not attend workshops, while 45.6% (n=72; p<.0005) reported that they did. A significant proportion 85.4% (n=135; p<.0005) of the respondents had not been exposed to conferences, while 14.6% (n=23; p<.0005) had exposure. Seventy point

three percent of the respondents (n=111; p<.0005) did not attend formal education courses and 29.7% (n=47; p<.0005) of the respondents attended formal education courses. A significant number of the respondents 68.4% (n=108; p<.0005) did not engage in self-study. A significant number 77.2% (n=122; p<.0005) of the respondents indicated that they did not have any exposure to learner-centred teaching and 22.8% (n = 36; p<.0005) reported that they had exposure to learner-centred teaching. Figure 4.2 depicts the exposure to leaner-centred teaching.

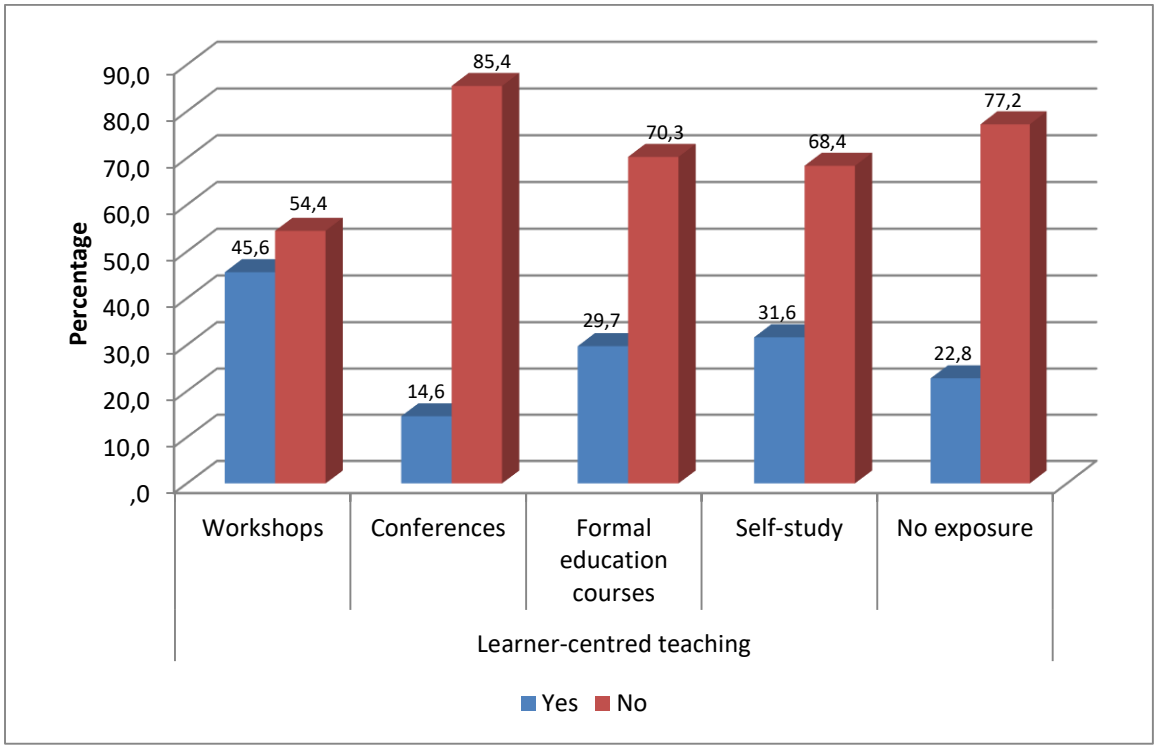


Figure 4.2 Exposure to learner-centred teaching

4.4.2 Understanding of learner-centred teaching

A significant proportion 44.9% (n=71) of the respondents agreed that learner-centred teaching enhances a deeper sense of understanding of nursing concepts, 41.8% (n=66) strongly agreed, 3.2% (n=5) disagreed, 2.5% (n=4) strongly disagreed and missing values 7.6% (n=12).

Sixty seven point one percent (n=106) of the respondents strongly agreed that learner-centred teaching stimulates critical thinking and problem solving, 24.7% (n=39) agreed, 3.2% (n=5) strongly disagreed and missing values 5% (n=8).

A significantly high number 63.9% (n=101) of the respondents strongly agreed that learner-centred teaching fosters independent learning, 26.6% (n=42) agreed, 2.5% (n=4) strongly diagreed and missing values 7% (n=11).

A high number 46.8% (n=74) of the respondents strongly agreed that learner-centred teaching has the capacity to apply classroom learning to clinical practice, 38% (n=60) agreed, 6.3% (n=10) disgareed, 1.9% (n=3) strongly disagreed and missing values 7% (n=11).

A single reliable measure for this construct was formed by averaging responses from the four items to get an overall score. This score is ordinal. The single measure was tested for reliability using Cronbach's alpha. The Cronbach's alpha for this single measure was .856 which, being >.7, indicates that a single measure formed by averaging the items will result in a reliable measure.

The validity of the measure was confirmed by applying exploratory factor analysis with varimax rotation. These four items loaded strongly onto a single factor (KMO = .803, Bartlett's p<.0005), which accounts for 70.47% of the variance in the data, showed that construct validity was present. The results of understanding of learner-centred teaching are depicted in Figure 4.3.

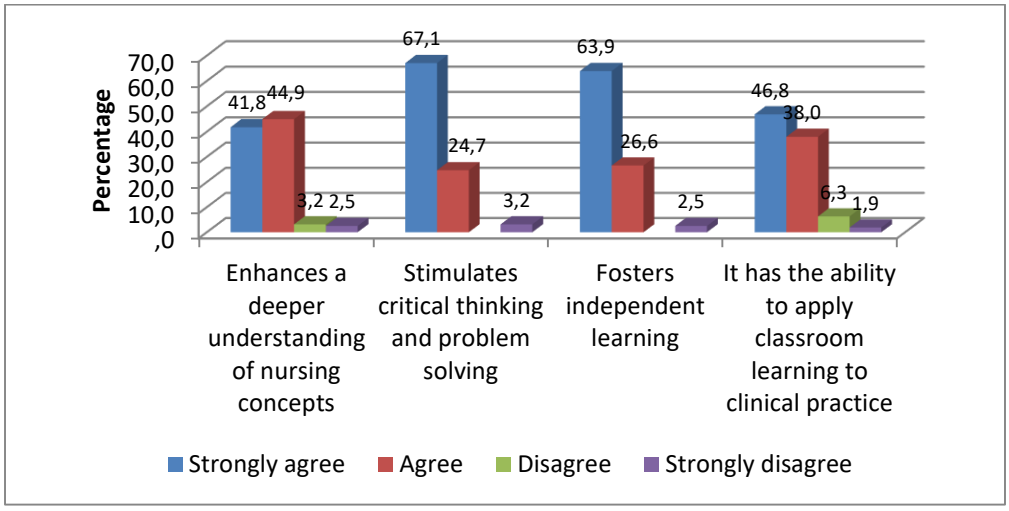


Figure 4.3 Understanding of learner-centred teaching

4.4.3 Current teaching practice

Figure 4.4 depicts results of the respondents description of their current teaching practice. A significant proportion 76.6% (n=121) of the respondents, were not teacher-centred, 22.2% (n=35) were teacher centred and missing values 1.2% (n=2).

Sixty nine point six percent (n=110) of the respondents were not somewhat teacher-centred, 29.1% (n=45) were somewhat teacher-centred and missing values 1.3% (n=2).

Sixty two point seven percent (n=99) of the respondents were not somewhat learner-centred, 36.1% (n=57) were somewhat learner-centred and missing values 1.2% (n=2).

A significantly high proportion 88% (n=139) of the respondents were not learner-centred, 10.8% (n=17) were learner-centred and missing values 1.2% (n=2).

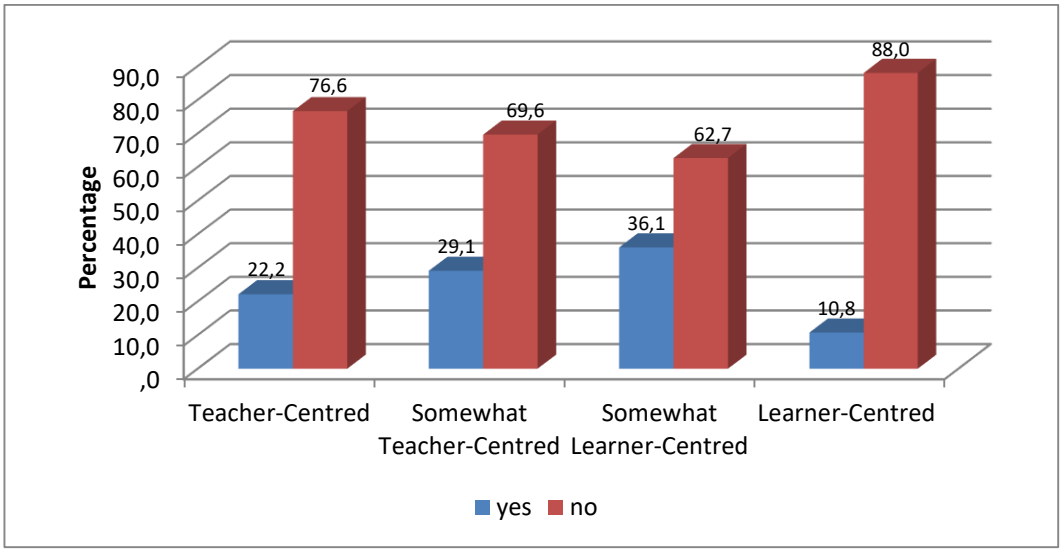


Figure 4.4: Current teaching practice

4.4.4 Teaching strategies

The response to teaching strategies most commonly included by repondents is graphically represented in figure 4.5, where teaching strategies are graded from

“rarely” to “most of the time”. The Chi-square goodness-of-fit test was used to measure the teaching strategy most commonly included in teaching practice.

A significant number 51.3% (n=68) of the respondents rarely used field trips, 20.9% (n=28) sometimes, 8.9% (n=12) frequently, 2.5% (n=5), (χ^2 (3) =106.42, p<.0005) most of the time and missing values 16.4% (n=22).

A high number 58.2% (n=72) of the respondents rarely used seminars as a teaching method, 15.8% (n=20) sometimes, 5.7% (n=7) frequently, 1.9% (n=2), (χ^2 (3) = 155.62, p<.0005) most of the time and missing values 18.4% (n=23).

Thirty six point seven percent (n=52), (χ^2 (3) =37.525, p<.0005) of the respondents sometimes used peer teaching and mentoring as a teaching method, 12.7% (n=18) rarely, 30.4% (n=43) frequently, 9.5% (n=13) most of the time and missing values 10.7% (n=15).

A high number 31.6% (n=50), (χ^2 (3) =15.481, p<.0005) of the respondents sometimes used evidenced based learning, 20.3% (n=32) rarely, 20.9% (n=33) frequently, 11.4% (n=18) most of the time and missing values 15.8% (n=25).

A high number 32.3% (n=42), (χ^2 (3) =29.569, p<.0005) of the respondents sometimes used collaborative learning, 22.8% (n=30) rarely, 22.2% (n=29) frequently, 5.1% (n=7) most of the time and missing values 17.7% (n=28).

A high number 27.2% (n=43), (χ^2 (3) =22.168, p<.0005) of the respondents sometimes used co-operative learning, 2% (n=30) rarely, 22.2% (n=29) frequently, 5.1% (n=7) most of the time and missing values 17.7% (n=28).

A significant number 43.7% (n=64), (χ^2 (3) =47.585, p<.0005) of the respondents frequently used demonstration as a teaching method, 23.4% (n=-34) most of the time, 19% (n=28) sometimes, 7% (n=10) rarely and missing values 7% (n=11).

The case study method of teaching was used sometimes by 40.5% (n=58), (χ^2 (3) = 38.734, p<.0005) of the respondents, 15.2% (n=22) rarely, 25.3% (n=36), frequently, 9.5% (n=14) most of the time and missing values 9.5% (n=15).

A significant number 36.7% (n=49), (χ^2 (3) =32.564, p<.0005) of the respondents sometimes used problem based learning, 18.4% (n=24) rarely, 21.5% (n=29) frequently, 7.6% (n=10) most of the time and missing values 15.8% (n=25).

The use of role plays was sometimes used by 44.3% (n=63), (χ^2 (3) =51.014, p<.0005) of the respondents, 20.3% (n=29) rarely, 17.7% (n=25) frequently, 7.6% (n=11) most of the time and missing values 10.1% (n=16).

A significant number 40.5% (n=55), (χ^2 (3) =55.667, p<.0005) of the respondents sometimes used buzz groups and brainstorming as a teaching method, 27.2% (n=37) rarely, 13.3% (n=18) frequently, 4.4% (n=6) most of the time and missing values 14.6% (n=23).

A significantly high number 60.8% (n=77), (χ^2 (3) =189.87, p<.0005) of the respondents rarely used web based teaching, 17.1% (n=22) sometimes, 0.6% (n=1) frequently, 1.3% (n=2) most of the time and missing values 20.3% (n=32).

Thirty five point four percent (n=77), (χ^2 (3) =63.738, p<.0005) of the respondents rarely used project based learning, 38.6% (n=54) sometimes, 11.4% (n=16) frequently, 10.8% (n=17) most of the time and missing values 10.8% (n=17).

A significant number 44.9% (n=66), (χ^2 (3) =65.653, p<.0005) frequently used group presentations as a teaching method, 14.6% (n=21) most of the time, 29.7% (n=44) sometimes, 3.8% (n=6) rarely and missing values 7% (n=11).

A high number 34.8% (n=51), (χ^2 (3) =32.740, p<.0005) of the respondents sometimes used guided discussions, 8.2% (n=12) rarely, 32.3% (n=47) frequently, 17.1% (n=25) most of the time and missing values 7.6% (n=12).

Small group based activity was frequently used as a teaching method by 36.7% (n=52), (χ^2 (3) =61,599, p<.0005) of the respondents, 15.2% (n=22) most of the time, 36.7% (n=52) sometimes, 1.9% (n=3) rarely and missing values 9.5% (n=15).

A significantly high number 41.8% (n=62) of the respondents frequently used lecture as a teaching method, 29.1% (n=43) most of the time, 18.4% (n=27) sometimes, and 4.4% (n=7), (χ^2 (3) =50.973, p<.0005) rarely and missing values 6.3% (n=10).

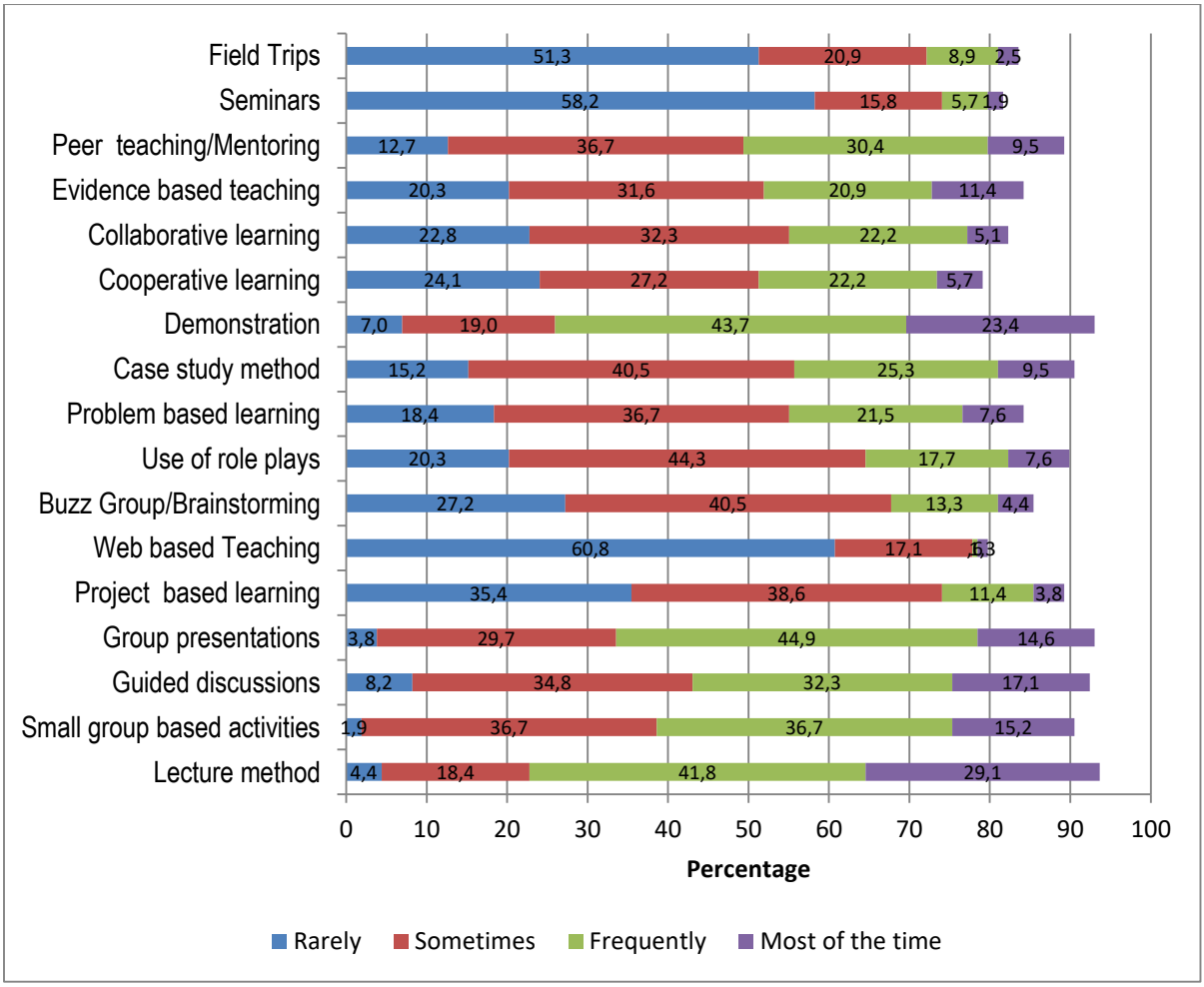


Figure 4.5: Current teaching strategies

4.4.5 Typical study materials/aids used during teaching practice

The response to which typical study material/aids respondents introduce during teaching practice is represented in table 4.5, where the introduction of study materials/aids are graded from “rarely” to “most of the time”. The Chi-square goodness-to-fit test was used to measure the study materials/aids most commonly included during teaching practice.

A significantly high number of respondents 69% (n=107) indicated that they used textbooks most of the time during their teaching practice, 25.9% (n=40) frequently, 1.9% (n=3) sometimes, 1.3% (n=2), (χ^2 (3) =195,323, p<.0005) rarely and missing values 1.9% (n=3).

Workbooks were used by 39.9% (n=60), (χ^2 (3) =50.086, p<.0005) of the respondents most of the time, 34.2% (n=52) frequently, 15.8% (n=23) sometimes, 5.7% (n=8) rarely and missing values 4.4% (n=7).

A significant number 34.8% (n=51), (χ^2 (3) =29.299, p<.0005) of the respondents revealed that they used prepared lecture notes most of the time, 31.6% (n=46) frequently, 17.1% (n=25) sometimes, 9.5% (n=14) rarely, missing values 7% (n=10) and missing values 7% (n=10).

A high number 38% (n=55), (χ^2 (3) =44.630, p<.0005) of the respondents indicated that they frequently supplied learners with a list of additional literature, 16.5% (n=24) most of the time, 32.3% (n=47) sometimes, 5.7% (n=8) rarely and missing values 7.5% (n=11).

The response to the use of slides and pictures indicated that 23.4% (n=33), (χ^2 (3) =0.972, p<.0005) of the respondents frequently used these during their teaching practice, 19.6% (n=28) most of the time, 24.7% (n=35) sometimes, 22.8% (n=33) rarely and missing values 9.5% (n=14).

A significantly high number 40.5% (n=55), (χ^2 (3) =61.647, p<.0005) of the respondents rarely used statistics during their teaching, 30.4% (n=41) sometimes, 10.1% (n=14) frequently, 5.1% (n=7) most of the time and missing values 13.9% (n=19).

A significant number 33.5% (n=47), (χ^2 (3) =25.806, p<.0005) of the respondents revealed that they sometimes used models during their teaching practice, 13.3% (n=18) rarely, 29.1% (n=40) frequently, 12% (n=17) most of the time and missing values 12.1% (n=17).

A significantly high number 54.4% (n=71), (χ^2 (3) =121.000, p<.0005) of the respondents rarely used computer simulated models during their teaching practice, 15.8% (n=21) sometimes, 8.9% (n=12) frequently, 3.8% (n=5) most of the time and missing values 17.1% (n=22).

Clinical realistic equipment was used frequently by 34.8% (n=48) of the respondents, 23.4% (n=32), (χ^2 (3) =20.869, p<.0005) most of the time, 14.6% (n=20) sometimes, 13.9% (n=19) rarely and missing values 13.3% (n=18).

Thirty seven point three percent (n=54), (χ^2 (3) =35.000, p<.0005) of the respondents rarely used the internet or intranet during their teaching practice, 30.4% (n=48) sometimes, 13.9% (n=20) frequently, 10.1% (n=15) most of the time and missing values 8.3% (n=12).

A significantly high number 62.7% (n=83), (χ^2 (3) =183.060, p<.0005) of the respondents rarely used computers for e-learning, 16.5% (n=22) sometimes, 2.5% (n=3) frequently, 2.5% (n=3) most of the time and missing values 15.8% (n=21).

Forty one point one percent (n=58), (χ^2 (3) =84.343, p<.0005) of the respondents sometimes used research articles during their teaching practice, 28.5% (n=40) rarely, 17.7% (n=25) frequently, and 1.9% (n=3) most of the time and missing values 10.8% (n=15).

Forty one point eight percent (n=57), (χ^2 (3) =84.343, p<.0005) of the respondents rarely used research data bases during their teaching practice, 34.8% (n=48) sometimes, 8.9% (n=12) frequently, 1.3% (n=2) most of the time and missing values 13.2% (n=18).

Forty two point four percent (n=59), (χ^2 (3) =60.551, p<.0005) of the respondents rarely used websites for additional literature search, 27.8% (n=38) sometimes, 12.0% (n=17) frequently, 5.1% (n=7) most of the time and missing values 12.7% (n=18).

Table 4.5: Typical study materials/aids used during teaching practice

	N	Rarely	Sometimes	Frequently	Most of the time	Missing values	Chi	df	P value
Textbooks	155	1.3	1.9	25.9	69.0	1.9	195.32	3	.0005
Workbooks	151	5.7	15.8	34.2	39.9	4.4	50.086	3	.0005
Prepared lecture notes	147	9.5	17.1	31.6	34.8	7	29.299	3	.0005
List of additional literature	146	5.7	32.3	38	16.5	7.5	44.630	3	.0005
Slides and pictures	143	22.8	24.7	23.4	19.6	9.5	0.972	3	.808
Diagrams, flow charts and graphs	139	24.1	28.5	24.1	11.4	11.9	11.705	3	.0005
Statistics	136	40.5	30.4	10.1	5.1	13.9	61.647	3	.0005
Models	139	13.3	33.5	29.1	12.0	12.1	25.806	3	.0005
Computer simulated models	131	54.4	15.8	8.9	3.8	17.1	121.00	3	.0005
Clinical realistic equipment	137	13.9	14.6	34.8	23.4	13.3	20.869	3	.0005
Internet or intranet	145	37.3	30.4	13.9	10.1	8.3	35.000	3	.0005
Computers for e-learning	133	62.7	16.5	2.5	2.5	15.8	183.06	3	.0005
Research articles	141	28.5	41.1	17.7	1.9	10.8	58.801	3	.0005
Research databases	137	41.8	34.8	8.9	1.3	13.2	84.343	3	.0005
Websites for additional literature search	138	42.4	27.8	12.0	5.1	12.7	60.551	3	.0005

4.4.6 Preferred learning styles of learners

The Wilcoxon test for agreement/disagreement was used to assess statements that best describes the preferred learning styles of learners.There was significant agreement by the respondents that the preferred learning styles of learners are frequently matched to the teaching/learning methods, ($Z= -3.507$, $p<.0005$). Thirty five point four percent (n=52) of the respondents agreed that learners are regularly assessed on their preferred learning styles, 39.2% (n=58) disagree, 7% (n=10) strongly agree, 11.4% (n=17) strongly disagree and missing values 7% (n=10). The response to preferred learning styles of learners are often matched to the teaching/learning methods 47.5% (n=73) of the respondents agreed, 24.1% (n=37) disagreed, 17.1% (n=27) strongly agreed, 9.5% (n=15) strongly disagreed and missing values 1.8% (n=3). Table 4.6 depicts the preferred learning styles of learners.

Table 4.6: Preferred learning style of learners

	N	Strongly agree	Agree	Disagree	Strongly disagree	Missing values	Mean	Std. dev.	Z	Asymp. Sig.
Learners are regularly assessed on their preferred learning styles	147	7.0	35.4	39.2	11.4	7	2.59	.800	-1.335	.182
The preferred learning styles of learners are often matched to the teaching/learning methods	155	17.1	47.5	24.1	9.5	1.8	2.26	.861	-3.507	.000

4.4.7 Self-directed learning during teaching

Figure 4.6 depicts results of the respondent's description of their encouragement of self-directed learning during their teaching practice and the Chi-square goodness-of-fit was used to assess this.

A significant proportion 57% (n=88) of respondents reviewed learning objectives so that learners knew what is expected of them, most of the time, 29.7% (n=46) frequently, 8.9% (n=14) sometimes, 2.5% (n=4) rarely and missing values 1.9% (n=3).

Forty nine point four percent (n=76) of the respondents frequently designed activities that encouraged active learning, 22.2% (n=34) most of the time, 23.4% (n=36) sometimes, 2.5% (n=4) rarely and missing values 2.5% (n=4).

A large number 48.1% (n=74) of the respondents designed activities that fostered self-motivation frequently and 17.7% (n=27) most of the time. Twenty six point six percent (n=41) of the respondents sometimes designed activities that foster self-motivation, 5.1% (n=8) rarely and missing values 2.5% (n=4).

A significant portion 44.3% (n=68) of the respondents often permitted students to take responsibility for their own learning, 38.6% (n=59) most of the time, 12% (n=18) sometimes, 2.5% (n=4) rarely and missing values 2.5% (n=4).

A significant number 39.9% (n=59) of respondents revealed that they frequently encouraged self-directed learning and 33.5% (n=49) encouraged self-directed

learning most of the time. A small number 19% (n=28) of respondents sometimes encouraged self-directed learning and missing values 7% (n=11).

A single measure was formed to check for validity and reliability. Factor analysis shows that the five items load onto a single factor that accounts for 54.01% of the variance (KMO = .737, Bartlett's p<.0005). Cronbach's alpha = 0.781. Thus a single measure for 'encouraging self- directed learning' (SDL) is valid and reliable.

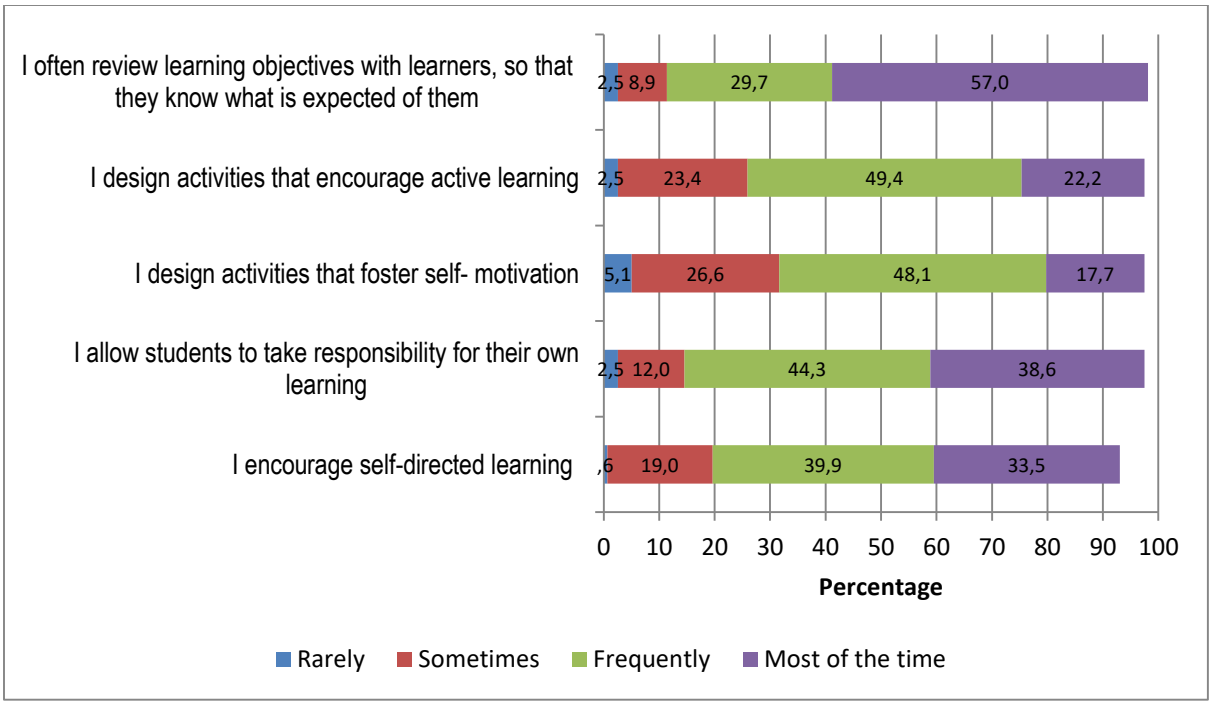


Figure 4.6: Encouragement of self-directed learning

4.4.8 Cognitive aspects of learning

A Chi-square goodness-of-fit analysis was used to describe the respondent's enhancement of cognitive aspects of learning

A significant majority 49.4% (n=77), (χ^2 (3) = 94.316, p<.0005), of respondents revealed that they asked challenging questions to expand students answers most of the time. Thirty six point one percent (n=56) of respondents frequently, 11.4% (n=18) sometimes asked challenging questions to expand student answers, 1.8% (n=2) rarely and missing values 1.8% (n=2).

A significantly more than expected 49.4% (n=76) (χ^2 (3) = 102.294, p<.0005) of the respondents asked students to clarify their thinking when they answer a question most of the time, 37.3% (n=57) frequently, 8.9% (n=14) sometimes, 1.3% (n=2) rarely and missing values 3.1% (n=5).

Reflective and creative thinking was encouraged frequently by the majority 44.9% (n=68), (χ^2 (3) = 93.316, p<.0005) of the respondents and 40.5% (n=62) most of the time. A small number 8.2% (n=12) of respondents encouraged reflective, creative thinking during teaching and learning and missing values 3.9% (n=6).

A large number 41.1% (n=63), (χ^2 (3) = 72.805, p<.0005) of the respondents encouraged analytical and critical thinking most of the time, 39.9% (n=61) frequently, 14.6% (n=22) sometimes, 1.9% (n=3) rarely and missing values 2.5% (n=4).

Forty six point eight (n=72), (χ^2 (3) = 64.961, p<.0005), of respondents frequently designed activities so that learners could connect new information with current knowledge in important ways, 27.8% (n=43) most of the time, 19% (n=29) sometimes, 3.2% (n=5) rarely and missing values 3.2% (n=5).

A high number 41.1% (n = 62), (χ^2 (3) = 41.579, p<.0005), of respondents frequently designed activities to assist students resolve common nursing problems, 25.9% (n=62) most of the time, 23.4% (n=36) sometimes, 5.7% (n=9) rarely and missing values 3.2% (n=5).

A significant number 44.9% (n = 68), (χ^2 (3) = 51.252, p<.0005), of respondents frequently asked students to deliberate clinical decision making during classroom teaching, 27.2 % (n=41) most of the time, 15.2% (n=23) sometimes, 8.2% (n=12) rarely and missing values 3.9% (n=6).

Thirty nine point nine percent (n=60) of respondents frequently asked students during class to think of ways for nurses to apply content being discussed, 31% (n=47) most of the time, 20.3% (n=47) sometimes, 4.4% (n=7) rarely and missing values 4.5% (n=7).

Factor analysis was done on clinical decision making and application of content and two factors were successfully extracted from these items (KMO=839), Bartlett's p

<.0005. Factor 1, accounted for 52.39 % variance, can be described as 'thought', while factor 2, accounted for 15.36% of the variance, could be labelled as 'application'. Based on the Z approximation, both of these types of cognitive learning are encouraged at least frequently. Table 4.7 depicts the cognitive aspects of learning.

Table 4.7: Cognitive aspects of learning

	No.	Rarely	Sometimes	Frequently	Most of the time	Missing Values	Chi	df	P value
I ask challenging questions to expand students answers	155	1.3	11.4	36.1	49.4	1.8	94.316	3	.0005
I ask students to explain their thinking when they answer a question	153	1.3	8.9	37.3	49.4	3.1	102.29	3	.0005
I encourage reflective and creative thinking during teaching and learning	152	2.5	8.2	44.9	40.5	3.9	93.316	3	.0005
I encourage analytical and critical thinking	154	1.9	14.6	39.9	41.1	2.5	72.805	3	.0005
I design activities so that learners can link new information with existing knowledge in meaningful ways	153	3.2	19.0	46.8	27.8	3.2	64.961	3	.0005
I design activities to help my students solve common nursing problems	152	5.7	23.4	41.1	25.9	3.9	41.579	3	.0005
I ask students to discuss clinical decision-making in my classroom teaching	151	8.2	15.2	44.9	27.2	4.5	51.252	3	.0005
I ask students during class to think of ways for nurses to apply the content we are discussing	151	4.4	20.3	39.9	31.0	4.4	46.166	3	.0005

4.4.9 Social interactive aspects of learning

Table 4.8 depicts the results of respondents' description of their enhancement of social interactive aspects of learning during teaching. The Chi-square goodness-of-fit was used to assess the above.

A substantial number 39.9% (n=61), (χ^2 (3)=50.987, p<.0005), of respondents revealed that they frequently designed activities to use during class time where learners interacted with each other, 33.9% (n=52) sometimes, 20.9% (n=32) most of the time, 3.2% (n=5) rarely and missing values 2.5% (n=4).

Forty four point nine percent (n=70) of the respondents used group activities during class time, 27.2% (n=42) most of the time, 22.8% (n=35) sometimes, 3.2% (n=5), (χ^2 (3) = 50.897, p<.0005), rarely and missing values 1.9% (n=3).

Active individual and group participation was encouraged frequently by 50% (n=78), (χ^2 (3) = 94.718, p<.0005), of the respondents. Thirty five point four percent (n=55) of respondents encouraged active individual and group participation most of the time, 12.7% (n=24) sometimes, 0.6% (n=1) rarely and missing values 1.3% (n=2).

A significant number 46.2% (n=72), (χ^2 (3) =75.684, p<.0005), of the respondents encouraged students to function in a team frequently, 34.8% (n=54) most of the time, 15.2% (n=24) sometimes, 1.9% (n=3) rarely and missing values 1.9% (n=3).

A high number 41.8% (n=64), (χ^2 (3) = 44.130, p<.0005), of respondents asked students to discuss methods to apply their knowledge gained by reflection to future clinical situations frequently, 26.6% (n=41) most of the time, 24.1% (n=37) sometimes, 5.1% (n=8) rarely and missing values 2.4% (n=4).

Table 4.8: Social interactive aspects of learning

	N	Rarely	Sometimes	Frequently	Most of the time	Missing Values	Chi	df	P value
I design activities to use during class time where students interact with each other	154	3.2	33.5	39.9	20.9	2.5	50.987	3	.0005
I use group activities during class time	155	3.2	22.8	44.9	27.2	1.9	56.897	3	.0005
I encourage active individual and group participation	156	0.6	12.7	50.0	35.4	1.3	94.718	3	.0005
I encourage students to function in a student team	155	1.9	15.2	46.2	34.8	1.9	75.684	3	.0005
I ask students to discuss ways to apply their knowledge gained by reflection to future clinical situations	154	5.1	24.1	41.8	26.6	2.4	44.130	3	.0005

4.4.10 Reflection during teaching

The response by the respondents on reflection during teaching is represented in table 4.9, where encouragement of reflection is graded from “rarely” to “most of the time”. The Chi-square goodness-to-fit test was used to evaluate the encouragement of reflection during teaching.

A significant number 43% (n=67), (χ^2 (3) =62.4190, p<.0005) of the respondents revealed that they encouraged learners to reflect on their personal and clinical experience, 36% (n=56) most of the time, 18% (n=28) sometimes and 2.5% (n=4) rarely.

The incorporation of reflection during classroom teaching was frequently used during classroom teaching among 45% (n=68) of the respondents. Twenty nine percent (n=44) of the respondents incorporated reflection into classroom teaching, 20% (n=30) sometimes and 6% (n=9), (χ^2 (3) =48.762, p<.0005) rarely.

A significantly high number 41% (n=62) of the respondents frequently incorporated reflection during group activities, 28% (n=43) sometimes, 25% (n=38) most of the time and 6% (n=9), (χ^2 (3) =37.947, p<.0005) rarely.

A high number 41% (n=62), (χ^2 (3) =36.684 p<.0005) of the respondents frequently asked students to discuss ways to apply their knowledge gained by reflection to future clinical situations, 28% (n=42) most of the time, 22% (n=33) sometimes and 7% (n=11) rarely.

A factor analysis was done to assess for validity and reliability. The factor analysis showed that the five items loaded into a single factor accounted for 73.37% of the variance (KMO = .818, Bartlett's p< .0005), and Cronbach's alpha =.876. Thus the single measure for 'reflection' (REF) was valid and reliable. Based on the Z approximation, (Z > 10), it was found that reflection was encouraged at least frequently.

Table 4.9: Reflection during teaching

	N	Rarely	Sometimes	Frequently	Most of the time	Chi	df	P value
I encourage students to reflect on their personal or clinical experience	155	2.5	18	43	36	62.419	3	.0005
I incorporate reflection into my classroom teaching	151	9	30	68	44	48.762	3	.0005
I incorporate reflection into group activities used in class	152	9	43	62	38	37.947	3	.0005
I ask students to discuss ways to apply their knowledge gained by reflection to future clinical situations	152	11	33	62	46	36.684	3	.0005

4.4.11 Assessment and evaluation

Table 4.10 depicts the results of the respondents' description of assessment and evaluation strategies. The Chi-square goodness-of-fit was used to assess the above.

A substantial number 42.4% (n=65), (χ^2 (3) =36.256, p<.0005) of respondents revealed that they frequently encouraged self-assessment of performance and skills, 21.5% (n=33) most of the time, 23.4% (n=36) sometimes, 9.5% (n=15) rarely and missing values 3.2% (n=5).

Formative rather than summative assessment was encouraged frequently among 42.4% (n=67), (χ^2 (3) = 34.053, p<.0005) of the respondents. Nineteen point six percent (n=30) of the respondents encouraged formative rather than summative assessment most of the time, 22.8% (n=35) sometimes,11.4% (n=17) rarely and missing values 3.8% (n=6).

A high number 39.9% (n=62), (χ^2 (3) =25.103, p<.0005) of the respondents frequently encouraged standards based assessment, 20.9% (n=32) most of the time, 24.7% (n=38) sometimes, 12.7% (n=20) rarely and missing values 1.8% (n=3).

A significant number 28.5% (n=44), (χ^2 (3) =2.582, p<.0005) of the respondents rarely included students in decisions about what they learn and how they will be assessed, 21.5% (n=33) sometimes, 20.9% (n=32) most of the time, 25.9% (n=40) frequently and missing values 3.2% (n=5).

Peer assessment and review was encouraged sometimes among 30.4% (n=46), (χ^2 (3) =13.316, p<.0005) of the respondents, 23.4% (n=36) rarely, 29.7% (n=45) frequently, 12.7% (n=19) most of time and missing values 3.8% (n=6).

A significant number 41.8% (n=63), (χ^2 (3) = 55.225, p<.0005) of the respondents frequently encouraged the development of skills needed throughout life, 32.9% (n=50), most of the time, 16.5% (n=25) sometimes, 4.4% (n=7) rarely and missing values 4.4% (n=6).

Table 4.10: Assessment and evaluation

	N	Rarely	Sometimes	Frequently	Most of the time	Missing Values	Chi	df	P value
I encourage self-assessment of performance skills	153	9.5	23.4	42.4	21.5	3.2	36.256	3	.005
I encourage formative rather than summative assessment	152	11.4	22.8	42.4	19.6	3.8	34.053	3	.005
I encourage standards based assessment, where students get to try again, until they reach the standard	155	12.7	24.7	39.9	20.9	1.8	25.103	3	.005
Students are included indecisions about what they learn and how they will be assessed	153	28.5	21.5	25.9	20.9	3.2	2.582	3	.461
I encourage peer assessment and review	152	23.4	30.4	29.7	12.7	3.8	13.316	3	.004
I encourage the development of skills needed throughout life	151	4.4	16.5	41.8	32.9	4.4	55.225	3	.005

4.5 Section C: Factors influencing teaching practice and learner-centred nursing education

The following aspects influencing learner-centred education, namely, the barriers to learner-centred education were explored to identify whether there was any significant relationship between them.

4.5.1 Barriers to learner-centred nursing education

The response to the challenges or barriers to learner-centred education is graphically presented in figure 4.7.

The Wilcoxon Signed Ranked tests indicated that more than 39.2% (n=59), (Z=-6.664; p<.0005) of the respondents agreed that a large number of students in class contributed to barriers to learner-centred education, 33.5% (n=50) strongly agreed, 16.5% (n=25) disagreed, 5.7% (n=9) strongly disagreed and missing values 5.1% (n=8).

Forty nine point four percent (n=75) of the respondents strongly agreed that too much content taught, contributed to barriers to learner-centred education, 35.4% (n=54) agreed, 10.1% (n=15) disagreed, 1.3% (n=2) strongly disagreed and missing values 3.8% (n=6).

A high number 51.9% (n=76), (Z=-6.517; p<.0005) of the respondents agreed that varied learning styles of students contributed to barriers to learner-centred education, 20.9% (n=31) strongly agreed, 15.8% (n=23) disagreed, 4.4% (n=7) strongly disagreed and missing value 7% (n=11).

Too little time allocated to teach content was significantly agreed by 41.8% (n=62), (Z=-7.632; p<.0005) of the respondents, 35.4% (n=53) strongly agreed, 12.7% (n=19) disagreed, 4.4% (n=7) strongly disagreed and missing values 5.7% (n=9).

A significant number 29.7% (n=44), (Z=-3.924; p<.0005) of the respondents agreed that a lack of classroom size and space contributed to barriers to learner-centred education, 27.2% (n=40) strongly agreed, 29.1% (n=48) disagreed, 7% (n=10) strongly disagreed and missing values 7% (n=11).

A significantly high number 51.9% (n=79), (Z=-8.480; p<.0005) of the respondents strongly agreed that a lack of teaching aids and equipment contributed to barriers to learner-centred education, 30.4% (n=46) agreed, 8.2% (n=12) disagreed, 5.7% (n=9) strongly disagreed and missing values 3.8% (n=6).

Sixty nine point six percent (n=106) of the respondents strongly agreed that inadequate library and internet facilities contributed to barriers to learner-centred education, 16.5% (n=25), (Z=-9.519; p<.0005) agreed, 5.1% (n=8) disagreed, 5.7% (n=9) strongly disagreed and missing values 3.2% (n=5).

A significantly high number 51.3% (n=76), (Z=-8.365; p<.0005) of the respondents agreed that institutional barriers contributed to barriers to learner-centred education, 29.1% (n=43) agreed, 8.2% (n=12) disagreed, 5.7% (n=8) strongly agreed and missing values 5.7% (n=9).

Three factors were successfully extracted from these items (KMO =.722; Bartletts' p<.0005). Factor 1, accounting for 37.69% of the variance, could be described as 'institution' (INS) while factor 2, accounting for 15.76% of the variance, could be labelled 'teaching' (TEA). Factor 3 accounted for 12.48% of the variance and could be labelled 'Classroom' (CLASS).

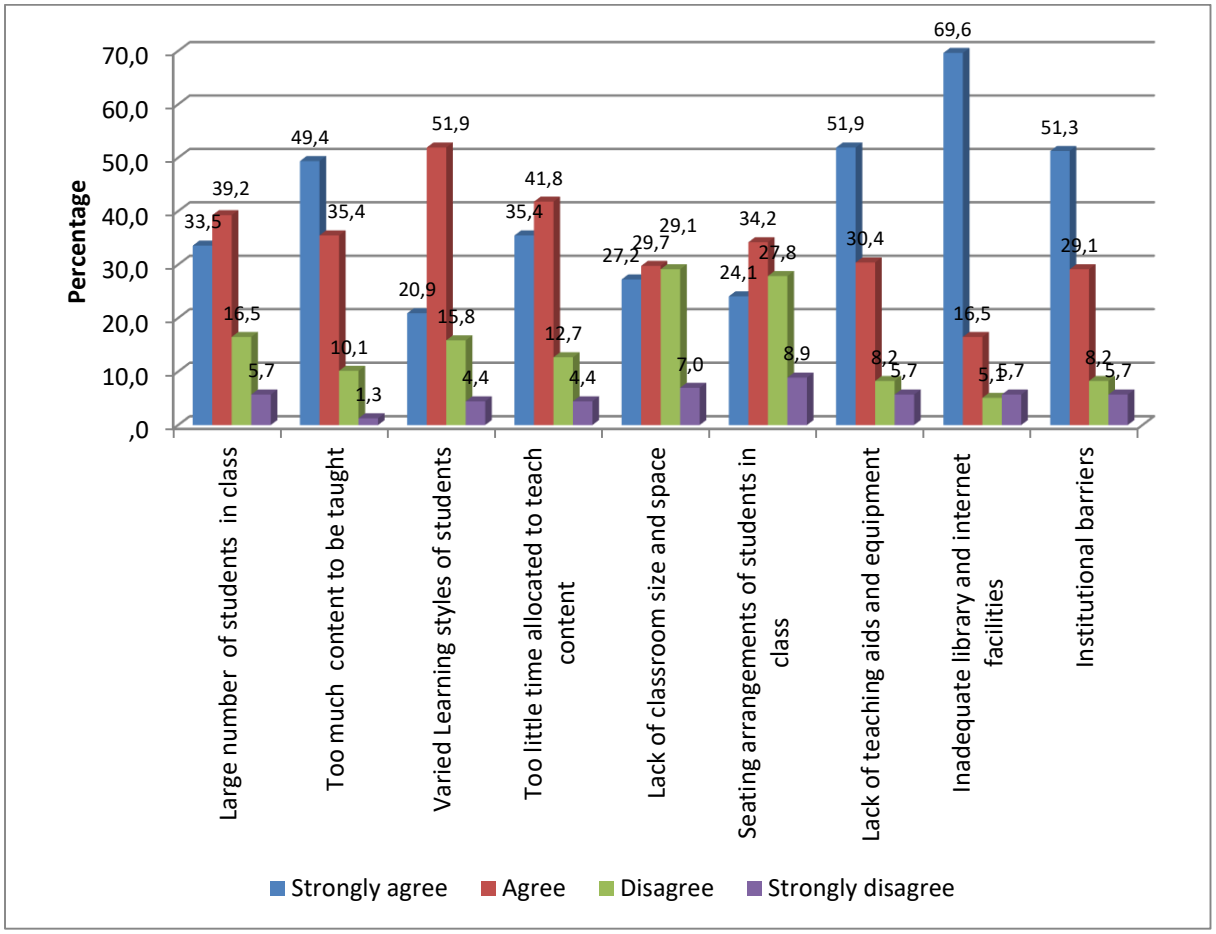


Figure 4.7: Barriers to learner-centred education

4.6 Section D: Non-implementation of learner-centred nursing education

The following aspects influencing learner-centred education, namely, the failure to implement learner-centred methods of teaching and failure of learners to adopt learner-centred methods of teaching were explored to identify whether there was any significant relationship between them.

4.6.1 Failure to implement learner-centred methods of teaching

A non-parametric sign test was used for this analysis. The response to the reasons for nurse educators failing to implement learner-centred methods of teaching and learning is presented in figure 4.8.

A significantly large number 44.3% (n=67), (Z=-8.062; p<.0005) of the respondents agreed that a lack of experience in learner-centred nursing education contributed to the failure to implement learner-centred methods of teaching, 36.1% (n=55) strongly agreed, 12% (n=18) disagreed, 3.8% (n=6) disagreed and missing values 3.8% (n=6).

Forty three point seven percent (n=66) of the respondents strongly agreed that increased academic workload contributed to the failure to implement learner-centred methods of teaching, 42.4% (n=64), (Z=-9.463; p<.0005) agreed, 7.0% (n=11) disagreed, 1.9% (n=3) strongly disagreed and missing values 5.1% (n=8).

A high number 56.3% (n=84), (Z=-9.964; p<.0005) of the respondents agreed that a lack of consistency in implementing learner-centred nursing education contributed to the failure to implement learner-centred methods of teaching, 32.9% (n=49) strongly agreed, 3.8% (n=6) disagreed, 1.3% (n=2) strongly disagreed and missing values 5.7% (n=9).

Thirty eight point six percent (n=59) of the respondents agreed that a lack of support given to nurse educators by campus management contributed to the failure to implement learner-centred method of teaching, 38% (n=58) strongly agreed, 15.8% (n=24) disagreed, 3.8% (n=6), (Z=-7.628; p<.0005) strongly disagreed and missing values 3.8% (n=6).

A significantly high number 44.9% (n=68), (Z=-9.449; p<.0005) of the respondents strongly agreed that an absence of in-service training on learner-centred nursing education, contributed to the failure to implement learner-centred methods of teaching, 41.1% (n=62) agreed, 7.6% (n=11) disagreed, 1.9% (n=3) strongly disagreed and missing values 4.4% (n=7).

Thirty six point one percent (n=54) of the respondents agreed that nurse educators attitude towards leaner-centred instruction contributed to the failure to implement learner-centred methods of teaching, 24.7% (n=37) strongly agreed, 24.7% (n=37) disagreed, 8.9% (n=13), (Z=-3.895; p<.0005) strongly disagreed and missing values 5.7% (n=9).

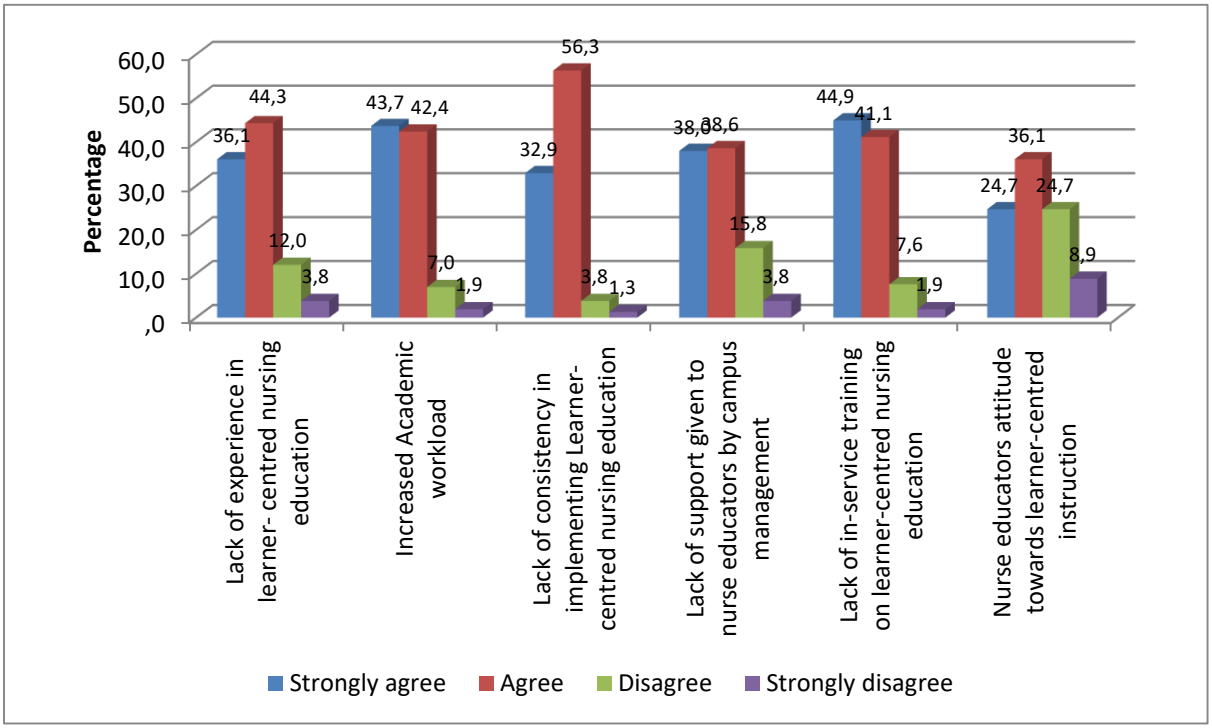


Figure 4.8: Failure to implement learner-centred education methods of teaching

4.6.2 Failure to adopt learner-centred methods of teaching

The response to reasons why learners fail to adopt learner-centred training is graphically presented in table 4.11.

Fifty six point three percent (n=86), (Z=-8.415; p<.0005) of the respondents agreed that a lack of learning skills and abilities contributed to the failure to adopt learner-

centred methods of teaching, 27.8% (n = 42) strongly agreed, 8.2% (n=12) disagreed 3.8% (n=6) strongly agreed and missing values 3.9% (n=6).

A significant number 44.3% (n=67), (Z=-8.564; p<.0005) of the respondents agreed that a lack of learner's willingness to accept learner-centred instruction contributed to the failure to adopt learner-centred methods of teaching, 36.2% (n=55) strongly agreed, 14.6% (n=22) disagreed, 1.3% (n=2) strongly disagreed and missing values 3.7% (n=6).

A significant number 50% (n=75), (Z=-9.289; p<.0005) of the respondents agreed that a lack of self-motivation contributed to the failure to adopt learner-centred methods of teaching, 35.4% (n=53) strongly agreed, 7% (n=10) disagreed, 1.9% (n=3) strongly disagreed and missing values 5.7% (n=8).

Forty eight point seven percent (n=74), (Z=-8.934; p<.0005) of the respondents agreed that the learners perception of the learning process contributed to the failure to adopt learner-centred methods of teaching, 34.2% (n=52) strongly agreed, 11.4% (n=17) disagreed, 1.3% (n=2) strongly disagreed and missing values 4.4% (n=6).

A high number 47.5% (n=72), (Z=-8.669; p<.0005) of the respondents agreed that a lack of learner readiness was a contributor to the failure to adopt learner-centred methods of teaching, 36.1% (n=55) strongly agreed, 8.9% (n=13) disagreed, 3.2% (n=5) strongly disagreed and missing values 4.3% (n=6).

The majority 43% (n=65), (Z=-7.792; p<.0005) of the respondents agreed that an increased workload of learners, contributed to the failure to adopt learner-centred methods of teaching, 33.5% (n=50) strongly agreed, 15.8% (n=24) disagreed, 2.5% (n=4) strongly disagreed and missing values 5.2% (n=7).

Table 4.11: Failure to adopt learner-centred methods of teaching

	N	Strongly agree	Agree	Disagree	Strongly disagree	Missing Value	Mean	Std. dev.	Z	P Value
Lack of learning skills and abilities	152	27.8	56.3	8.2	3.8	3.9	1.88	.722	-8415	.0005
Lack of learners' willingness to adopt learner-centred instruction	152	36.1	44.3	14.6	1.3	3.7	1.80	.737	-8.564	.0005
Lack of self-motivation	149	35.4	50.0	7.0	1.9	5.7	1.74	.682	-9.289	.0005
Learners perception of the learning process, they are more concerned with grades	151	34.2	48.7	11.4	1.3	4.4	1.79	.699	-8.934	.0005
Lack of learner readiness	151	36.1	47.5	8.9	3.2	4.3	1.78	.747	-8.669	.0005
Increased workload of learners	150	33.5	43.0	15.8	2.5	5.2	1.87	.783	-7.792	.0005

4.6.3 Barriers to the implementation of learner-centred instruction

An open-ended question was included for comments, of any other barriers, to the implementation of learner-centred instruction and common categories were identified and presented in percentages.

The respondents identified the following categories: the need for infrastructure and equipment 22% (n=35), learners were inadequately prepared 14.5% (n=23), nurse educators lacked knowledge and skill 13% (n=21), a lack of institutional support 8% (n=12), institutional barriers 6.9% (n=11), poorly designed curriculums 4% (n=6) and 31.6% (n=50) did not answer.

4.7 Cross-tabulation analysis

Cross-tabulations were used to identify association between the age of the respondents and teaching practice revealed that there was no significant relationship between age and teaching practice.

The Kruskal-Wallis non-parametric test was applied and the results showed that there was no significant difference between the highest educational qualification and teaching strategies included during teaching. This indicates that level of education does not have a significant effect on the use of teaching strategies.

When applying the Chi-square test of independence, no noteworthy relationship was found between experience and teaching practice.

Results of a Pearson's correlation between the nurse educators understanding of learner-centred teaching and teaching strategies, revealed that there was a significant relationship between attitudes towards learner-centred teaching and including seminars in teaching ($r = -0.189$, $p = 0.32$).

The Kruskal-Wallis non-parametric test was applied if the 'average' frequency measure differs significantly across the categories of nurse lecturers. No significant difference in the frequency of use of these materials across the categories of nurse educators

4.8 Conclusion

This chapter presented the findings and statistical analyses of data collected from the research instrument. The data was presented to meet the needs of the objectives and included demographic information, teaching experience and practice of the respondents, learner-centred teaching practices as well as factors influencing learner-centred education. The statistical analysis included descriptive, parametric, non-parametric and inferential analysis.

These analyses were used to summarise the questionnaire variables and ascertain correlations between factors influencing current teaching practice and the implementation of learner-centred teaching practices. Frequency tables, graphs and figures were used to show distribution of categorical variables.

CHAPTER 5: DISCUSSIONS AND CONCLUSIONS

5.1 Introduction

This chapter discusses the results of the study presented in Chapter 4 regarding the implementation of learner-centred approaches in nursing education in KwaZulu-Natal Province with respect to the Learner-Centred conceptual framework model. The questionnaire was the primary tool that was used to collect data from nurse educators at the 10 campuses of the KZNCN. After the results have been discussed, the chapter concludes by presenting recommendations, limitations and areas for further research. These are the objectives for the study.

To determine the nature and extent of the implementation of learner-centred approaches in nursing education in the current teaching practice.

To explore possible factors influencing teaching practice and learner-centred nursing education.

To identify the main factors influencing teaching practice and learner-centred nursing education.

5.2 Demographic characteristics

The statistics of nurse educators in this study represents the current population of those registered with the SANC within KwaZulu-Natal Province. Of the 158 respondents who participated in this study, 90.5% (n=143) were females and 9.5% (n=15) were males, which is very similar to the SANC statistics for 2017, where 90.4% (n=259 495) registered professional nurses were females and 9.6% (n=27 584) were males (SANC 2017). The results indicate that a large proportion of female respondents is in keeping with the nursing profession being female dominated. Ndou and Moloko-Phiri (2018:1) reported that over the last 20 years, more men have chosen nursing as a profession, but they remain in the minority in most parts of the world, including South Africa.

Very few of the respondents (11.4%, n=18) were in the age group 25-40 years. The majority of respondents (87.3%, n=138) were 41-65 years of age, indicating that many of the nurse educators are close to retirement, which may have serious consequences

for nursing education within KwaZulu-Natal. A concern in South Africa is the aging population of nurse educators, many of whom are not computer literate and lack innovative teaching skills (Janse van Vuuren, Seekoe & Goon, 2018:4).

Mulaudzi, Daniels, Direko and Uys (2012:3-11) reported that although universities in South Africa are producing large number of nurse educators, they do not seem to be absorbed by the nursing colleges and universities. Many nurse educators will have to be replaced within the next 10 years, which is a challenge, as the profession is struggling to attract new professional nurses as educators. This is compounded by the fact that they do not benefit from an Occupational-Specific Dispensation (OSD), which provides financial incentives for additional clinical qualifications (Mulaudzi *et al.,* 2012:3-11).

The mid-year population estimates for South Africa by racial group for 2017 comprised of 80.8% Blacks (n=45 656 400), 8.8% Coloureds (n=4 962 900), 8.0% Whites (n=4 493 500) and 2.5% Indians (n=1 409 100) (Statistics South Africa 2017). The majority (72%, n=115) of respondents in the study were Blacks, Indians accounted for 19.6% (n=31), Coloureds for 4.4% (n=7) and Whites for 3.2% (n=5). A comparison of the statistics in the United States of America showed that 65.6% of the US population was non-Hispanic White, and 83.2% of the registered nurses were non-Hispanic White. While the registered nurse population is increasing in diversity, smaller groups remain underrepresented (Phillips, 2014:3).

The majority (61.4%, n=97) of respondents had a Bachelors Degree in Nursing Education, 34.8% (n=55) a Masters in Nursing Education, 3.2% (n=5) a Diploma in Nursing Eduaction and 0.6% (n=1) a Doctorate in Nursing Education. The minimum qualification required by nurse educators to teach within the nursing campuses is a Bachelors Degree or Diploma in Nursing Education. With the current trends in nursing education in South Africa and the move to higher education qualifications, there has been a call for nurse educators to improve their qualifications, with many having embarked on obtaining their masters and doctorates in nursing education (Mulaudzi *et al*. 2012:11).

The study revealed that the majority of the respondents 89.9% (n=142) had 5-20 years of teaching experience and 8.9% (n=14) had 20-35 years. This implies that the nursing

campuses have sufficiently experienced nurse educators who are able to teach and mentor student nurses in the classroom and clinical area. According to Seekoe (2014:2), having sufficiently experienced nurse educators is also essential for mentoring and supervision of novice nurse educators and to ensure academic success of students within the nursing campus.

Most of the respondents were involved in teaching the four year Diploma in Nursing and Midwifery programme (SANC Regulation 425), which was offered at the 10 nursing campuses within the KwaZulu-Natal College of Nursing. Half (50%, n=80) taught in the first year, 51.9% (n=82) in the second year, 48.7% (n=77) in the third year and 30.4% (n=48) in the fourth year. Most (85%, n=135) of the respondents reported that they taught across the different levels of training due to a staff shortage and lack of experience. Janse van Vuuren *et al.* (2018:15) reported that nurse educators carry a substantial workload by teaching more than one group of students at a time.

5.3 The implementation of learner-centred approaches in nursing education in the current teaching practice

The successful implementation of learner-centred teaching practices requires nurse educators to be trained and exposed to leaner-centred teaching practices. This study revealed that a significant proportion (85.4%, n=135) had no exposure to conferences, 77.2% (n=122) to learner-centred teaching practices, 70.3% (n=111) did not attend formal education courses, 68.4% (n=108) did not engage in self-study practices and 54.4% (n=86) did not attend workshops.

In the current study, nurse educators reported that while there are capacity building initiatives within their campuses, in some institutions there was no budget for such activities. In institutions that did have a budget, only a limited amount was provided, which made it difficult for nurse educators to attend continuing education and in-service training activities. Janse van Vuuren *et al.* (2018:5) reported that nurse educators are often not equipped for innovations in nursing education and are frequently expected to learn how to use teaching equipment and computer programme scenarios on their own without any formal training. A lack of nurse educators is also evident at many nursing colleges in South Africa (Seekoe, 2014:2).

Daniels *et al.* (2015:5) concur that nurse educator skills in facilitating learner-centred nursing education was not always adequate, and that they lacked the necessary skills to guide nursing students in the practice of discovery and self-directed learning. In the South African context, nurse educators reported that nursing colleges do not have any formal in-service education programmes or structured orientation for new nurse educators, which contributes to them not using the latest learner-centred practices. It also appears that new nurse educators are not fully supported by their line managers during the facilitation of new learning methods in the classrooms (Msweli, 2017:33).

Oyelana *et al.* (2018:123) recommended that for the successful implementation and transition to learner-centred teaching practices, nurse educators need to be exposed to workshops, seminars and programmes. This study revealed that a lack of exposure to learner-centred teaching directly correlates to the lack of nurse educators implementing learner-centred teaching practices within Kwazulu-Natal.

A firm understanding of learner-centred teaching practices by nurse educators is essential for its implementation in nursing eduaction and transition to higher education. The results of the study indicate that nearly half of the respondents (44.9%, n=69) agreed that learner-centred teaching enhances a deeper understanding of nusing concepts. While they also felt that it improved the ability to apply classroom learning to clinical practice, their views had a limited effect on their actual application of learner-centred teaching practices. Ellis (2015:69) reported that altering teaching practices to more innovative pedagogies, such as learner-centred teaching, was challenging for nurse lecturers and involved altering their views about learning.

Ellis (2016:67) argues that nurse educators still struggle to apply innovative teaching practices and ideas in the practice of nursing education. There appears to be a level of uncertainty about what nurse lecturers say they believe and the use of learner-centred teaching practices. According to Ellis (2015:67), nurse educators often profess to adopt a learner-centred philosophy, but their reported teaching practices may be more teacher-centred. This strongly correlates with the results of this study, as many of the nurse educators reported that they had little exposure or training in learner-centred teaching practices, which made it difficult to change their methods of instruction.

A significant proportion of the respondents (88%, n=139) reported that their teaching practice was not learner-centred, while 36.1% (n=56) felt that it was somewhat learner-centred. The results indicated that the most respondents were unsure about their current teaching practices. Moate and Cox (2015:379) concurred that although learner-centred practices are well known by nurse educators within the higher education domain, the transformation has been slow. Moate and Cox (2015:387) are of the opinion that there is a problem in thinking of teacher-centered and learner-centred methods of teaching as dichotomous and separate, and that it would be incorrect to describe nurse educators as either one or the other. This study revealed that one third (36.1%, n=56) of nurse educators mainly use a teacher-centred approach, or a blend of both approaches. There remains some ambiguity about what nurse educators say and believe about learner-centred nursing education, and while they often claim to use a learner-centred phiolsophically, their teaching pratices may in reality be more teacher-centred (Ellis, 2015: 67).

Msweli (2017:25) reported that nurse educators have little idea about the difference between lecturing and the facilitation of learning, and are afraid to go to class to faciltate learning. The fear and uncertainty was aggrevated by the fact that nurse educators often have outdated knowledge and are unable to facilitate innovative teaching strategies in the classroom (Msweli, 2017: 25).

This study revealed that a significant proportion of the respondents (41.8%, n=66) continue to use lectures as the preferred method of teaching. Mbirimtengerenji and Adejumo (2015: 283) concurs that this remains the most common teaching method amongst nurse educators in Malawi, which were used due to limited resources and teaching aids (Mbirimtengerenji & Adejumo, 2015:283). Mthiyane and Habedi (2018:8) reported that traditional methods of teaching still prevail in nursing education and do not encourage critical thinking, but rather lead to technical skills mastery. According to Huston *et al.* (2018:30), nurse educators in the United States of America are encouraged to use learner-centred teaching and active approaches to learning and simulation that support the development of clinical judgement abilities.

A significant proportion of respondents (77.9%, n=129) rarely used web-based teaching, which correlates directly with a lack of computers, internet and library facilities within the nursing campuses. Kordi *et al.* (2015:266) reported that web-based

learning assisted nursing students' overall improvement in self-confidence and clinical competence. In web-based education, students are able to retrieve the educational content wherever and whenever, based on their own individual talents. Furthermore, the application of learner-centred instructional methods, such as web-based training and educational simulation, in which students play an important role in their own learning, could considerably increase students' self-confidence and skills (Kordi *et al.* 2015:266).

This study revealed that 58.2% (n=75) of respondents rarely used seminars and 51.3% (n=68) field trips as teaching strategies. Mbirimtengerenji and Adejumo (2015:283) concurs that these methods of teaching were not frequently used by nurse educators due to limited resources. Over half (58.2%, n=92) indicated that they frequently used problem-based learning. Nguyen *et al*. (2016:12) indicated that nurse educators and students reported the benefits of problem-based learning, such as students being more active and self-directed, and with enhanced critical thinking and problem solving abilities.

Many (51.3%, n=81) of the respondents indicated that they rarely used co-operative learning. Baloche and Brody (2017:276) indicated that its implementation in the classroom can be challenging for nurse educators, especially getting small groups of students to co-operate with each other to promote learning.

Evidence-based teaching was rarely used by the respondents (51.9%, n=82), with nurse educators reporting a lack of computers, internet and library facilities within the campuses, which directly correlated with the lack of evidence based teaching. Homtvedt, Nordsteien, Fermann and Severinsson (2018:8) reported that nurse educators experienced difficulty integrating evidence-based practice in their teaching, as they lacked knowledge, had a large workload, insufficient time and limited resources. Nursing students also reported that they found it challenging to find and interpret research due to a lack of knowledge and computer literacy skills (Homtvedt *et al*. 2018:8).

Three quarters (69.09%, n=107) of respondents mainly use textbooks, 39.9% (n=60) workbooks and 34.8% (n=51) lecture notes as their main teaching aids. Bachar (2016:6) noted that nurse educators who lack knowledge regarding learner-centred

teaching practices continue to use textbooks, workbooks and lecture notes during their teaching practice. The use of statistics, flow charts, computer simulated models, internet or intranet, e-learning, research articles, research data bases and websites in this study by nurse educators was limited (Bachar, 2016:6). This is in keeping with the results of this study, where the lecturers reported a lack of teaching equipment, computers and internet for student nurses to engage in innovative teaching practices. This was supported by an absence of in-service preparation for nurse educators in the use of innovative teaching strategies, and a lack of finance for upgrading facilities within the nursing campuses within KwaZulu-Natal. Armstrong and Rispel (2015:5) found that nurse educators within the nursing colleges, have not kept abreast with contemporary teaching practices and settings. The severe shortage of nurse educators and material resources was seen as another important challenge in many of the nursing colleges. Coopasami, Knight and Pete (2017:303) reported that the learning methods used to educate nursing students at tertiary levels are very dynamic and extends beyond the classroom, with nurse educators having to move to using innovative teaching strategies, such as e-Learning.

There was agreement by 47.5% (n=73) of the respondents that the preferred learning styles of the learners were frequently correlated to the teaching methods, but that nurse educators continued to use didactic methods of teaching, such as the lecture methods. Britiller, Garcia and Amponin (2018:419) noted that assessing the learning styles of student nurses is an essential pre-requisite to planning effective continuing nursing education activities.

Frantz and Mthembu (2014:1815) reported that understanding the student's learning styles can be useful for both the student and educators, as it can steer the learning process and acquaint them with study methods that compliments their abilities. Nursing students have unique learning needs, and it is important for nurse educators to understand them in order to modify the planning, executing and assessment of teaching activities. Nurse educators must constantly endeavour to find innovative ways to prepare nursing students with unique learning oppertunities for the ever-changing clinical setting (Frantz & Mthembu, 2014:1815). McCombs and Millers' LCM supports distinctive differences in learning, with learners have different approaches, methods, capabilities and preferences for learning. The degree to which these

differences are accepted and adapted to is directly correlated with successful learning (McCombs & Miller, 2007:31).

Nearly half (48.1%, n=74) of the respondents frequently allowed students to take responsibly for their own learning and (49.4%, n=76) often designed activities that encourage active learning. McCombs and Millers' LCM theoretical framework states that motivation to learn is influenced by an individual's emotional state, beliefs, interests, goals and habits of thinking. Individuals are naturally creative and curious, utilize high-order thinking and enjoy learning, all of which add to the enthusiasm to learn. The motivation to learn is stimulated by tasks that present optimal novelty and difficulty, are relevant to the student's individual interest, reflect practical situations, and provide for personal choice and control (McCombs & Miller, 2007:30).

According to El Seesy *et al.* (2017:21), self-directed learning is essential for allowing nursing students to advance independent learning skills, responsibility, accountability and confidence, which are important attributes for a nurse's career. The authors contend that higher education in nursing should prepare graduates with the competence to take on the progressively challenging roles required in the profession. Knowing about and understanding nursing students' self-directed learning abilities are essential for nurse educators. In a study conducted by Mohoadoba (2018:65), it was found that student nurses displayed satisfactory levels of readiness for self-directed learning, and that the nurse educators need to incorporate learner-centred strategies that promote self- directed learning.

Van Rensburg and Bothma (2015:4) reported that nurse educators were found to have insufficient knowledge and skill to promote self-direction within the classroom setting. Though several dependable and valid instruments exist to determine self-directed learning readiness, these instruments are not used on a consistent basis, particularly among nurse educators. This study revealed that the majority of the respondents still used the traditional lecture method of teaching and did not fully understand or lacked knowledge and training about the principles of self-directed learning and learner-centred teaching practices.

Half (49.4%, n=76) the respondents revealed that they asked student's challenging questions and to explain their thinking when they answered a question. Zeki and

Guneyli (2014:6) notes that students reported the positive effects of learner-centred instruction and the development of cognitive skills, which enabled them to develop their problem solving, questioning, analytical and creative thinking abilities. LaMartina and Ward-Smith (2014:159) argued that despite nurse educator's efforts in providing an active learning environment with the goal of facilitating the acquisition of critical thinking, new nursing graduates are still not capable of sound clinical judgements.

Linda *et al.* (2014: 91) reported that learner-centred instruction, such as case-based and problem-based learning stimulates learning, forces students to use their existing knowledge base, facilitates greater understanding, and improves retention, teamwork and the recall of information. Huston *et al.* (2018:31) reported that the current South African nursing education curriculum is outdated and does not foster learner-centred teaching and cognitive development in nursing students. The authors recommend that competency-based nursing education curricula must be promoted, as it encourages students to become more actively engaged in their learning experience and develops their cognitive, psychomotor and affective skills.

Reflective and creative thinking was encouraged by many respondents (44.9%, n=68), with analytical and critical thinking also being encouraged (41.1%, n=63). Ellis (2015:67) stated that learner-centred teaching, which incorporates the principles of adult learning theory, develops self-efficacy, enhances analytical thinking abilities and encourages student nurses to apply their knowledge in realistic situations in clinical setting. This is supported by the LCM theory, which states that learning is an active, goal-orientated, self-regulating process of discovery and constructing meaning from individual learner's experience and information. The successful learner must be able to link information with current and future knowledge in expressive ways (McCombs & Miller, 2007:30).

Enhancing social interactive learning is an important aspect of learner-centred teaching and learning, with 46.2% (n=71) of the respondents indicating that they encourage learners to function in a team. Chiriac (2014:8) reported that 97% of students emphasised the positive influence of group work and cooperative learning activities in the improvement of their social, emotional and affective skills, which helped them, develop confidence and autonomy. According to McCombs and Millers' LCM theorical framework, learning is enhanced in contexts in which learners have

supportive relationships, a sense of ownership and control over the learning process, and can learn with and from each other in a safe and trusting environment (McCombs and Miller, 2007:25).

According to a study by Zeki and Guneyli (2014:7), most students reported their self-expression, empathy building skills and respect for each other's ideas helped them socialise and build confidence. Incorporating collaborative teaching practices during activities can increase student learning and engagement, academic performance, class attendance and conceptual understanding (Zeki & Guneyli 2014:7).

Three quarters of the respondents (77.8%, n=123), encouraged learners to reflect on their personal and clinical experience, mainly (70.8%, n=112) was during classroom teaching. Over 1 third (38%, n=62), incorporated reflection during group activities, while many (76%, n=108) asked learners to discuss ways to apply their knowledge gained by reflecting on future clinical situations. According to Spies, Searle and Botma (2015:6), nurse lecturers should be encouraged to explore student nurse's old and innovative ideas through collaborative discourse and reflection. The frequent use of reflection could enable the construction of new meaning, which in turn might make the learning more valuable for the mature learner. Spies *et al*. (2015:6) stated that nursing students reported that during learner-centred learning, they used reflection as part of their learning process, which led to reasoning and the development of problem solving skills. This was done by students reporting that they shared ideas and gained from each other. Through reflection, students can evaluate their practices and improve their knowledge to ensure that they deliver high quality patient care and increased their awareness on how to improve their practical performance (Jootun & McGarry, 2014:1).

A change from traditional teacher-centred nursing education system to a learner-centred paradigm needs to be accompanied with a suitable shift in leaner-centred assessment and evaluation strategies. This study revealed that a significant number of the respondents frequently encouraged self-assessment and encouraged formative rather than summative assessment. Nasab (2015:170) reported that nurse educators need to move away from traditional forms of assessment, as it only encourages surface and rote learning, and memorization of facts and information. Standardized tests direct nurse educators to focus their attention on those subjects that are examined. Nurse educators need to focus on authentic learner-centred forms of

assessment that encourage critical thinking and problem solving in real world situations. Rawlusyk (2018:4) contends that authentic forms of assessment, such as peer and self-assessment, promote lifelong learning and allow students to make judgements and decisions that they may encounter in future.

Over one quarter (28.5%) of respondents rarely included students in decision-making about learning and evaluation, with the use of peer assessment and review being 'sometimes' reported (28.5%, n=43) by the respondents. An absence of adequate skill in dealing with issues of evaluation may have been an additional barrier, as some shared experiences of frustration in connection with the evaluation process (Oyelana *et al.,* 2018:122). This problem indicates the need for both nurse educators and students to be educated on how learner-centred teaching and evaluation works. Although nurse educators claimed that they incorporated learner-centred teaching in evaluation, there was no indication that they involved students in the process (Oyelana *et al.,* 2018:122). Nurse educators reported that a case-based approach provides added opportunity in preparing students for deep learning compared to the lecture based approach, as they scored higher on assessment tasks that required analysis and evaluation of patient's assessment, diagnosis and treatment plans (Daniels *et al*., 2015:3).

Bachar (2016:179) reported that the most frequently used method to evaluate learning and assign grades is an examination. The focus on grades and examinations has become so intense that students engage in surface learning, to enable them to do well in exams, but do not retain the information for any length of time thereafter. Nurse educators often encounter resistance when trying to transition to learner centred-centred teaching practices and assessment. Hunt and Hutchings (2014:25) reported that there has been a significant move towards self- and peer-assessment in the last decade, although this move has been counter balanced, as many students fail to take it seriously, resulting in inaccurate assessment marks. Students also experience difficulties these methods, as they generally over or under-rate their grades. In addition, peer and self-assessment may discipline, rather than empower students if driven and controlled by nurse lecturers (Hunt & Hutchings, 2014:25).

5.4 Factors influencing teaching practice and learner-centred nursing education.

Two thirds of the respondents (69.6%, n=106) felt that inadequate library and internet facilities were barriers to learner-centred education. Nearly half (49.4%, n=76) also agreed that too much content was presented during teaching and learning, 51.9% (n=79) indicated a lack of teaching aids and equipment, and 41.8% (n=62) noted that too little time was allocated to teaching. Mthiyane and Habedi (2018:8) and Msweli (2017:30) contended that nurse educators' reported a lack of physical resources as one of the main challenges to learner-centred nursing education, such as a lack of computers, library facilities, internet access, and relevant books, journals and articles. In this study, the educators reported inadequate supportive educational infrastructure, such as libraries, lack of computers, internet facilities and resources for the large number of student intakes, while the skills laboratories, practice units and teaching equipment were old and outdated. The respondents also reported that a lack of teaching resources as well as technological constraints hampered learner-centred teaching and learning.

Institutional barriers and a large numbers of students in class were reported by 51.3% as being barriers to learner-centred education. According to Zeki and Guneyli (2014:6), nurse educators reported that the classrooms were small and cramped and did not facilitate learner-centred teaching practices. Oyelana *et al.* (2018:122) identified barriers to learner-centred nursing education such as difficulty in engaging students in related practices, rigid task orientated routines, and working in chaotic environments.

5.5 Non-implementation of learner-centred nursing education

Many respondents (43.7%, n=67) agreed that an increased academic workload and a lack of consistency in implementing learner-centred nursing education (56.3%, n=84) made it difficult to implement learner-centred teaching practices. Van Rensburg and Botma (2015:2) reported that large class size, student's expectations and the need to cover large amounts of content contributed to nurse educators still adhering to traditional teaching methods. It may also be due to their emulating the way in which they were educated and because it is convenient, does not take too much effort to use

and adjust existing lecture and assessment materials (Van Rensburg & Botma 2015:2).

Of the 158 respondents, 44.9% (n=68) indicated that the lack of in-service training, experience (44.3%, n=67), and support (38.6%, n =59) given to nurse educators by campus management contributed to learner-centred education not being implemented. Ellis (2015:69) reported that nurse educators frequently felt overwhelmed with the teaching content that students were required to learn, and hesitated to in-corporate new pedagogies. They also indicated that learner-centred teaching can be time consuming and required the development of new teaching materials, which made them reluctant to pursue this option (Ellis 2015:69). In the South African, context a lack of adequate staff, busy work schedules and the large amount of work required to implement learner-centred teaching practices also contributed to nurse educators failing to adopt it (Janse van Vuuren *et al.* 2018:3).

Puplumpu and Ross (2017:55) concurred that a change in the role from teacher-centred to learner-centred education creates uncertainty in the nurse educators, which results in the failure of students to adopt innovative teaching strategies. The nurse educator's key concerns about learner-centred teaching included worrying about their loss of control over the student's depth of learning and application of knowledge. Oyelana *et al.* (2018:122) reported that a lack of suitable knowledge regarding the learner-centred philosophy was a barrier consistently identified amongst nurse educators. They also confronted the challenge of drifting back to traditional approaches due to a lack of knowledge and understanding of its principles. Msweli (2017:32) reported that new nurse educators complained that management was not supportive in skills development and providing in-service education programmes. They reported that nursing colleges lacked policies regarding student education, and that where they were available, they were inconsistently implemented, unclear and not revised timeously (Msweli 2017:32).

Ndawo (2015:107) reported that many nursing students' lacked basic reading, writing and arithmetic skills, and nurse educators were forced to lower their teaching standards to enable the content to be understood. Learner-centred teaching practices

would not have been possible to implement due to the different levels of understanding and knowledge of the students (Ndawo, 2015:107).

Over half of the respondents (56.3%, n= 83) agreed that learners failed to adopt learner-centred methods of teaching and learning due to a lack of learning skills and abilities, willingness, self-motivation, readiness and increased workloads. The results of this study are consistent with that of Puplampu and Ross (2017:58), where student nurses described their experience of learner-centred learning as turbulent, overwhelming and uncomfortable, as they were not familiar with the teaching practices. Puplampu and Ross (2017:58) reported that the nurse educators approach to facilitation, and a lack of adequate orientation to learner-centred teaching practices contributed to them failing to adopt new methods.

In this study, excessive workload, insufficient time and coverage of learning content contributed to students failing to adopt learner-centred methods of teaching and learning. Linda *et al.* (2014:87) noted that nursing students considered learner-centred teaching practices as very interesting, but many verbalised that a large workload, insufficient time and the inability to coverage all the required content from peer presentations made it difficult to implement.

This study revealed that nurse educators failed to adopt learner-centred methods of teaching due to a lack of resources, internet, computers and library facilities, resulting in learners failing to take the initiative for self-directed learning. Spies *et al.* (2015:6) reported that nursing students' failure to adopt learner-centred teaching practices may be related to former schooling and tertiary education, where students had traditional lecture-based, content-orientated teaching and learning methods, and had not developed self-directed learning skills. Mature student's life experiences may occasionally be an obstacle to learning, as they have well established attitudes, convictions, thinking patterns and educational experiences, with new ways of thinking and doing possibly rendering learning a difficult undertaking (Spies *et al.* 2015:6).

Bachar (2016:176) reported that students frequently do not have the study skills or knowledge from high school classes to prepare them for learner-centred teaching practice. Msweli (2017:32) noted that due to differences in ages between student nurses, and their differed learning rates, and this made it difficult for the older students to adopt learner-centred methods of teaching and learning.

5.6 Recommendations

The following recommendations are made as a result of the study findings:

Policy development:

- New nursing education strategies need to be developed that fosters learner-centred teaching and cognitive development in nursing students.

Institutional development

- Nurse educators need to transition to learner-centred methods of teaching gradually in order to address the various challenges they have encountered or the institutional barriers that need to be accommodated.
- Nurse educators need to attend regular in-service training and development workshops on learner-centred methods of teaching and learning.

Management

- A well developed and implemented paradigm shift from traditional teaching strategies, to contemporary teaching amongst nurse educators needs to be conceptualised to meet the learning needs of student nurses.
- Development strategies should be put in place for nurse educators to adopt more authentic learner-centred methods of assessment and to address the lack of physical resources, inadequate staff, busy work schedules and large amounts of work that contributed to its absence.

Practice

- Students need to be informed and coached to undertake self-directed learning to enable them to develop independent learning skills, accountability and responsibility.

5.7 Future research

The following recommendations for future research are made:

- This study was limited to the KZNCN, and only 158 nurse educators completed the survey. It is recommended that future studies should include nursing colleges in other provinces, private nursing colleges and universities in the country.

5.8 Study limitations

The following limitations are acknowledged:

- This study only focused on the KZNCN and did not include nurse educators from private nursing colleges and universities within the province.

5.9 Conclusions

Learner-centred teaching is an innovative pedagogy that addresses the challenges of educating nurses in the fast-pace, ever changing health care environment. Most respondents were Black nurse educators from the college of Nursing campuses within KwaZulu-Natal Province. Major concerns are the aging population of nurse educator's and that the profession is struggling to attract young professional nurses. Nursing education in South Africa is in a transition phase to higher education, with many nurse educators being in the process of improving their qualifications to meet higher education requirement. The change in emphasis from teacher-centred to learner-centred education is a major step in nursing education, especially in view of the changes in higher education.

REFERENCES

Alipio, J. 2014. Learner-centered approach in the teachings of mathematics: a consideration of teachers' perceptions. PhD, University of Zululand.

Allybokus, B. S. (2015). The implementation of learner-centred teaching in Mauritian state secondary schools: examining teachers' beliefs and classroom practice. PhD, University College London.

Aksit, F., Niemi, H. and Nevgi, A. (2016). Why is active learning so difficult to implement: the Turkish case. Australian Journal of Teacher Education, 41(4): 94-109.

Armstrong, S. J. and Rispel, L. C. (2015). Social accountability and nursing education in South Africa. Global Health Action, 8(1): 1-8.

Bachar, L. S. 2016. Beginings and challenges: the process of transitioning to learner-centered teaching in nursing education. PhD, University of Phoenix.

Baloche, L. and Brody, C. M. (2017). Cooperative learning exploring challenges, crafting innovations. Journal of Education for Teaching, 43(3): 274-283.

Baron, K. A. (2017). Changing to concept-based curricula: the process for nurse educators. The Open Nursing Journal, 11: 277-287.

Bertrum, C. and Christiansen, I. (2014). Understanding research: an introduction to reading research. Pretoria: Van Schaik.

Bimray, P. B., Le Roux, L. Z. and Fakude, L. P. (2013). Innovative education strategies implemented for large numbers of undergraduate nursing students: the case of one South African university nursing department. Journal of Nursing Education and Practice, 3(11): 116-120.

Bishop, C. F., Caston, M. and King, C. A. (2014). Learner-centered environments: creating effective strategies based on student attitudes and faculty reflection. Journal of the Scholarship of Teaching and Learning. 14(3): 46-63.

Blaauw, D., Ditlopo, P. and Rispel, L.C. (2014). Nursing education reform in South Africa – lessons learnt from a policy analysis study. Global Health Action, 7:10.3402/gha.v7.26401.

Britiller, M. C., Garcia, P. R. and Amponin, A. M. (2018). The changing learning needs of Saudi student nurses. European Scientific Journal, 14(19): 1857-7881.

Bruce, J., Klopper, H. and Mellish, M. (2011). Teaching and learning the practice of nursing. Cape Town: Heinemann.

Bvumbwe,T. and Mtshali, N. (2018). Transition-to-practice guidelines:enhancing the quality of nursing education. African Journal of Health Professions Education, 10(1) :66-71.

Chambers, D., Thiekötter, A. and Chambers. L. (2013). Preparing student nurses for contemporary practice: the case for discovery learning. Journal of Nursing Education and Practice, 3(9): 106-113.

Chiriac, E. H. (2014). Group work as an incentive for learning- students' experiences of group work. Frontiers in Psychology, 5(558): 1-10.

Cohen, L., Manion, L. and Morrison, K. (2011). Research methods in education. New York: Routedge.

Cornelius, P. B. 2014. Leave lecture behind: team-based learning strategies in baccalureate nursing education. PhD, Capella University.

Daniels, F. M., Fakude, L. P., Linda, N. S. and Modeste, R. R. M. (2015). Nurse educators' experiences of case-based education ina South African nursing programme. Curationis, 38(2): 1-8.

De Vos, A. S., Strydom, H., Fouchè, C. B. and Delport, C. S. L. (2005). Research at grass roots for the social sciences and human service profession. 3rd ed. Pretoria: Van Schaik.

Ellis, D. M. 2013. Apppling learner-centered teaching in the nursing education classroom : from theory to practice. PhD, University of Northern Colorado.

Ellis, D. M. (2015). The role of nurse educators' self-perceprtion and beliefs in the use of learner-centred teaching in the classroom. Nurse Education in Practice, 16: 66-70.

El Seesy, N. A., Sofar, S. M. and Al-Battawi, J. A. I. (2017) Self-directed learning readiness among nursing students at King Abdulaziz University, Saudi Arabia. IOSR Journal of Nursing and Health Science, 6(6): 14-24.

Ferozali, F. 2011. Adult learning theory approaches among healthcare instructors. PhD, Walden University.

Fielder, R., Giddens, J. and North, S. (2014). Faculty experience of a technological innovation in nursing education. Nursing Education Perspectives. 35(6): 387-391.

Frantz, J. and Mthembu, S. (2014). Learning styles among nursing students, the implications for higher education institutions: a systemic review. South African Journal of Higher Education, 28(6): 1814-1829.

Gouda, H.N., Charlson, F., Sorsdahl, K., Ahmadzada, S., Ferrari, A., Erskine, H., Leung, J., Santamauro, D., Lund, C., Aminde, L.N., Mayosi, B.M., Kengne, A.P., Harris, M., Achoki, T., Wiysonge, C.S., Stein, D.J. and Whiteford, H. (2019). Burden of non-communicable diseases in sub-Saharan Africa, 1990-2017: results from the global burden of disease study 2017. Lancet Global Health, 7: 1375-1387.

Grove, S. K., Burns, N. and Gray, J. R. (2013). The practice of nursing research: appraisal, synthesis, and generation of evidence. St. Louis: Elsevier.

Harerimana, A. and de Beer, J. (2013). Nurse educators' utilisation of different teaching strategies in a competency-based approach in Rwanda. Africa Journal of Nursing and Midwifery. 15(1): 29-41.

Homtvedt, M. T., Nordsteien, A., Fermann, T. and Severinsson, E. (2018). Strategies for teaching evidence-based practice in nursing education: a thermatic literature review. BMC Medical Education, 18(1): 1-11.

Hunt, J. A. and Hutchings, M. (2014). Innovative group-facilitated peer and educator assessment of nursing students' group presentations. Health Science Journal, 8(1): 22-31.

Huston, C.L., Phillips, B., Jeffries, P., Todero, C., Rich, J., Knecht, P., Sommer, S. and Lewis, M.P. (2018). The academic-practice gap: strategies for an enduring problem. Nursing Forum , 53: 27-34.

Inkelas, K. K., Jones, J., Robinson, K. and Cole, R. 2013. Training the next generation of instructors: the effects of a pedagogy seminar on graduate students' use of learner-centred paradigm. PhD, University of Virginia.

Jeffrey, D. M. and Clark, R. M. (2019). Supplementing western perspectives of learner-centred instruction with a daoist approach towards authentic power sharing in the classroom. International Journal of Contemporary Education, 2(1): 9-15.

Janse van Vuuren, V., Seekoe, E. and Goon, D. T. (2018). The perceptions of nurse educators regarding the use of high fidelity simulation in nursing education. Africa Journal of Nursing and Midwifery, 20(1): 1-20.

Jootun, D. and McGarry, W. (2014). Reflection in nurse education. Journal of Nursing Care, 3(2): 1- 3.

Kaddoura, M. A. (2011). Critical thinking skills of nursing students in lecture-based teaching and case-based learning. International Journal for the Scholarship of Teaching and Learning, 5(2): 1-18.

Kordi, M., Fakari, F. R., Mazloum, S. R., Khadivzadeh, T., Akhlaghi, F. and Tara, M. (2016). Comparison of the effect of web-based, simulation-based, and conventional training on the accuracy of visual estimation of postpartum hemorrhage volume on midwifery students: a randomized clinical trial. Journal of Education and Health Promotion, 5: 1-7.

Kyle, V. 2015. Curriculum transition: a qualitative inquiry of nursing faculty experience of a transition from a system-based to a concept-based curriculum. PhD, Capella University.

LaMartina, K. and Ward-Smith, P. (2014). Developing critical thinking skills in undergraduate nursing students: the potential for strategic management simulations. Journal of Nursing Education and Practice, 4(9): 155-162.

Linda, N. S., Daniels, F. M., Fakude, L. P. and Modeste, R. R. M. (2014). "Students' experiences of the case-based teaching and learning approach at a school of nursing in the Western Cape, South Africa." African Journal for Physical, Health Education, Recreation and Dance, 84-95.

Maree, C., Yazbek, M. and Leech, R. (2018). Process of development of a contemporary curriculum in advanced midwifery. Health SA Gesondheid, 23(0): 1-6.

Marrocco, G. F. (2014). Fostering significant learning in graduate nursing education. Journal of Nursing Education, 53(3): 177-179.

Mbirimtengerenji, N. D. and Adejumo, O. (2015). Utilization of the teaching strategies among nurse tutors in Malawi nursing colleges. Open Journal of Nursing, 5: 276-294

McCombs, B. L. (2008). From one-size-fits-all to personalized learner-centered learning: the evidence. The F.M. Duffy Reports,13(2): 1-12.

McCombs, B.L. and Miller, L. (2007). Learner-centered classroom practices and assessments: maximimizing student motivation, learning and achievement. California: Corwin Press.

Miller, T. M. 2013. Active learning: the perceptions and barriers of pre-licensure, baccalaureate nursing students: a basic qualitative research study. PhD, Capella University.

Moate, R. M. and Cox, J. A. (2015). Learner-centered pedagogy: considerations for application in a didactic course. The Professional Counselor, 5(3): 379-389.

Mohoaduba, P. L. 2018. Self-directed learning readiness of nursing students in their fourth year of study ina public nursing college in Johannesburg, Gauteng Province, South Africa. PhD, Stellenbosch University.

Msweli, M. G. 2017. The experiences of newly qualified nurse educators as facilitators of learning at a nursing college in Gauteng. PhD, University of Johannessburg.

Mthembu, S., Mtshali, N. and Frantz, J. (2014). Contextual determinants for community-based learning programmes in nursing education in South Africa. South African Journal of Higher Education, 28(6):1795-1813.

Mthiyane, G. N. and Habedi, D. S. (2018). The experiences of nurse educators in implementing evidence-based practice in teaching and learning. Health SA Gesondheid 23(0):1-9.

Mulaudzi, F. M. and Chyun, D. A. (2015). "Innovation in nursing and midwifery education and research." Rwanda Journal Series F: Medicine and Health Sciences, 2(2): 21-25.

Ndawo, M. G. (2015). "Challenges experinced by nurse educators on the delivery of content laden curriculum at a nursing college in Gauteng." Journal of Nursing Education and Practice 5(11): 103-112.

Nguyen, T. A. P., Kang, S., Ho, T. T. T., Mai, B. H., Vo, T. D. B. and Nguyen, V. Q. H. (2016). Problem-based learning in nursing education at Hue University of Medicine and Pharmacy, Vietnam: perspective and needs assessment. Journal of Problem-based learning, 3(1): 9-14.

Ndou, N. P. and Moloko-Phiri, S. S. (2018). Four-year diploma male students' experience in a profession traditionally perceived as a female domain at a selected public college of nursing in Limpopo, South Africa. Curationis, 41(1): 1-6.

Noh, G. and Kim, D. H. (2019). Effectiveness of a self-directed learning program using blended coaching among nursing students in clinical practice: a quasi-experimental research design. BMC Medical Education, 19(255): 1-8.

Osinubi, A. A. A. and Ailoje-Ibru, K. O. (2014). A paradigm shift in medical, dental, nursing, physiolotherapy and pharmacy education: from traditional method of teaching to case-based method of learning- a review. Annual Research & Review in Biology, 4(13): 2053-2072.

Oyelana, O., Martin, D., Scanlan, J. and Temple, B. (2018). Learner-centred teaching in a non-learner-centred world: an interpretive phenomenological study of the lived experience of clinical nursing faculty. Nurse Education Today, 67:118-123.

Phillips, J. M. (2014). Increasing racial/ethnic diversity in nursing to reduce health disparities and achieve health equity. Public Health Rep,129(2) :45-50.

Polit, D. F. and Beck, C. T. (2014). Essentials of nursing research: appraising evidence for nursing practice. Philadelphia: lippincott Williams and Wilkins.

Puplampu, V. A. and Ross, C. (2017). Nursing faculty and student transition to a context-based learning curriculum. Journal of Nursing Education and Practice, 7(7) : 54.

Qamata-Mtshali, N. A. 2012. Problem-based learning vs traditional curricula: a comparative study of nursing students' self-directed learning readiness. PhD, University of the Witswaterand.

Rispel, L. and Bruce, J. (2014). "A profession in peril ? Revitalising nursing in South Africa " Global Health Action, 7: 117-125.

Roof, L. P. 2012. Making the change: from a teacher-centered to a learner-cenetred environment: a phenomenological study. PhD, University of Phoenix.

Rosenau, P. A., Lisella, R. F., Clancy, T. L. and Nowell, L. S. (2015). Developing future nurse educators through peer monitoring. Nursing Research and Reviews, 5: 13-21.

Seekoe, E. (2014). A model for mentoring newly-appointed nurse educators in nursing education insttutions in South Africa. Curationis, 37(1): 1-8.

Schreurs, J. and Dumbraveanu, R. (2014). A shift from teacher centered to learner centered approach. International Journal of Engineering Pedagogy, 4(3) 36-41.

Sharma, R. K. (2017). Emerging innovative teaching strategies in nursing. JOJ Nursing & Health Care, 1(2): 1-3.

South African Nursing Council. 2017. Statistics of South African Nursing Council. Available: http://www.sanc.co.za/stats.htm (Accessed 10 January 2019).

South African Nursing Council. 2014 South African Nursing Council Regulations Index. Available: http://www.sanc.co.za/regulat/#number (Accessed: 15 November 2018).

South Africa, Department of Health. 2018. National Policy on Nursing Education and Training. Pretoria: Government Printer.

South Africa. Statistics South Africa. 2017. Census 2016 Statistical Release – South Africa. Pretoria: Government Printer.

Spies, C., Seale, L. and Bothma, Y. (2015). Adult learning: what nurse educators need to know about mature students. Curationis, 38(2): 1-7.

Subhan, M. S. 2014. Current pedagogical teaching strategies being used by educators at the Kwazulu Natal College of Nursing campuses across varied subjects and their views regarding innovative methodolgies. M.Tech. Durban University of Technology.

Van Rensburg, G. and Botma, Y. (2015). Bridging the gap between self-directed learning of nurse educators and effective student support. Curationis, 38(2): 1-7.

Wright, G.B. (2011). Student-centered learning in higher education. International Journal of Teaching and Learning in Higher Education, 23(3):192-97.

Zeki, C. P. and Güneyli, A. (2014). Student teachers' perceptions about their experiences in student centered course. South African Journal of Education, 34(3): 1-11.

Annexure 1: Questionnaire

Questionnaire No.	

Section A: Demographic Data

Please complete the following by placing an X against the option that applies to you. Select one option unless otherwise instructed.

1. Gender

Male	
Female	

2. Age

25-30 years	
31-40 years	
41-50 years	
51-60 years	
61- 65 years	

3. Ethnicity

African	
Coloured	
White	
Indian	
Other	

4. Highest Educational qualification

Doctoral in nursing	
Masters degree in nursing	
Bachelor's degree in nursing	
Diploma in nursing	

5. Year when qualification was obtained

< 5 years ago	
6- 10 years ago	
11-15 years ago	
16-20 years ago	
> 20 years ago	

6. For how many years have you been involved in teaching practice?

1-5 years	
6-10 years	
11- 15 years	
16-20 years	
21-30 years	
31-35 years	

7. Which level of the nursing programme are you teaching? You may choose more than one option.

Course	1st Year	2nd Year	3rd Year	4th Year
Diploma in nursing (General, Psychiatric and Community) and Midwifery - R425				
Diploma in nursing (Bridging course for enrolled nurses leading to registration as a General nurse) - R683				
Diploma in midwifery - R254				
Clinical nursing science leading to registration of an additional qualification - R212				

Section B: Implementation of learner-centred approaches in nursing education

8. Have you had any exposure to Learner-Centred teaching?

8.1	Workshops	
8.2	Conferences	
8.3	Formal education courses	
8.4	Self-study	
8.5	No exposure	

9. Based on my understanding of Learner-centred teaching, I believe it

		Strongly Agree	Agree	Disagree	Strongly Disagree
9.1	Enhances a deeper understanding of nursing concepts				
9.2	Stimulates critical thinking and problem solving				
9.3	Fosters independent learning				
9.4	It has the ability to apply classroom learning to clinical practice				

10. How would you describe your current teaching practice?

10.1	Teacher-Centred	
10.2	Somewhat Teacher-Centred	
10.3	Somewhat Learner-Centred	
10.4	Learner-Centred	

11. Select the teaching strategies most commonly included in your teaching.

	Method	Rarely	Sometimes	Frequently	Most of the Time
11.1	Lecture method				
11.2	Small group based activities				
11.3	Guided discussions				
11.4	Group presentations				
11.5	Project based learning				
11.6	Web based Teaching				
11.7	Buzz Group/Brainstorming				
11.8	Use of role plays				
11.9	Problem based learning				
11.10	Case study method				
11.11	Demonstration				
11.12	Cooperative learning				
11.13	Collaborative learning				
11.14	Evidence based teaching				
11.15	Peer teaching/Mentoring				
11.16	Seminars				
11.17	Field Trips				

12. Which typical study materials/aids do you introduce in your teaching practice to support learners?

		Rarely	Sometimes	Frequently	Most of the Time
12.1	Textbooks				
12.2	Workbooks				
12.4	Prepared lecture notes				
12.5	List of additional literature				
12.6	Slides and pictures				
12.7	Diagrams, flow charts and graphs				
12.8	Statistics				
12.9	Models				
12.10	Computer simulated models				
12.11	Clinical realistic equipment				
12.12	Internet or intranet				
12.13	Computers for e-learning				
12.14	Research articles				
12.15	Research data bases				
12.16	Websites for additional literature search				

13. Select the option that best describes the preferred learning styles of learners.

		Strongly Agree	Agree	Disagree	Strongly Disagree
13.1	Learners are regularly assessed on their preferred learning style				
13.2	The preferred learning styles of learners are often matched to the teaching/learning methods				

14. How do you encourage self-directed learning during your teaching?

		Rarely	Sometimes	Frequently	Most of the time
14.1	I encourage self-directed learning				
14.2	I allow students to take responsibility for their own learning				
14.3	I design activities that foster self- motivation				
14.4	I design activities that encourage active learning				
14.5	I often review learning objectives with learners, so that they know what is expected of them				

15. Select the option that best describes your enhancement of the cognitive aspects of learning.

		Rarely	Sometimes	Frequently	Most of the time
15.1	I ask challenging questions to expand students answers				
15.2	I ask students to explain their thinking when they answer a question				
15.3	I encourage reflective and creative thinking during teaching and learning				
15.4	I encourage analytical and critical thinking				
15.5	I design activities so that learners can link new information with existing knowledge in meaningful ways				
15.6	I design activities to help my students solve common nursing problems				
15.7	I ask students to discuss clinical decision-making in my classroom teaching				
15.8	I ask students during class to think of ways for nurses to apply the content we are discussing				

16. How do you enhance social interactive aspects of learning during your teaching?

		Rarely	Sometimes	Frequently	Most of the time
16.1	I design activities to use during class time where students interact with each other				
16.2	I use group activities during class time				
16.3	I encourage active individual and group participation				
16.4	I encourage students to function in a student team				
16.5	I transform learning into a cooperative/collaborative process				

17. Select the option that best describes your encouragement of reflection during your teaching.

		Rarely	Sometimes	Frequently	Most of the time
17.1	I encourage students to reflect on their personal or clinical experiences				
17.2	I incorporate reflection into my classroom teaching				
17.3	I incorporate reflection into group activities used in class				
17.4	I ask students to discuss ways to apply their knowledge gained by reflection to future clinical situations				

18. Select the option that best describes your assessment and evaluation strategies.

		Rarely	Sometimes	Frequently	Most of the time
18.1	I encourages self-assessment of performance and skills				
18.2	I encourages formative rather than summative assessment				
18.3	I encourage standards based assessment, where students get to try again, until they reach the standard				
18.4	Students are included in decisions about what they learn and how they will be assessed				
18.5	I encourage peer assessment and review				
18.6	I encourage the development of skills needed throughout life				

Section C: Factors influencing teaching practice and learner-centred nursing education

19. Select factors that you think are challenges or barriers to learner- centred education?

		Strongly Agree	Agree	Disagree	Strongly Disagree
19.1	Large number of students in class				
19.2	Too much content to be taught				
19.3	Varied Learning styles of students				
19.4	Too little time allocated to teach content				
19.5	Lack of classroom size and space				
19.6	Seating arrangements of students in class				
19.7	Lack of teaching aids and equipment				
19.8	Inadequate library and internet facilities				
19.9	Institutional barriers				

Section D: Non-implementation of learner-centred nursing education

20. Select reasons why you think nurse educators fail to implement learner-centred methods of teaching and learning?

		Strongly Agree	Agree	Disagree	Strongly Disagree
20.1	Lack of experience in learner- centred nursing education				
20.2	Increased Academic workload				
20.3	Lack of consistency in implementing learner-centred nursing education				
20.4	Lack of support given to nurse educators by campus management				
20.5	Lack of in-service training on learner-centred nursing education				
20.6	Nurse educators attitude towards learner-centred instruction				

21. Select reasons why you think learners fail to adopt learner-centred methods of teaching and learning?

		Strongly Agree	Agree	Disagree	Strongly Disagree
21.1	Lack of learning skills and abilities				
21.2	Lack of learners' willingness to adopt learner-centred instruction				
21.3	Lack of self-motivation				
21.4	Learners perception of the learning process, they are more concerned with grades				
21.5	Lack of learner readiness				
21.6	Increased workload of learners				

22. Do you think that there are any other barriers, to the implementation of a learner-centred instruction in nursing education? Please write it down:

_____
_____
_____
_____
_____
_____
_____
_____

Thank you for your participation

SECTION F: Development of Research Instrument

References

SECTION		PAGE
Section A	Roof, L. P. 2012. Making the change: from a teacher-centered to a leaner-centered environment: a phenomenological study. PhD, University of Phoenix.	11-12
Section B	Ellis, D. M. 2013. Applying learner-centered teaching in the nursing education classroom: from theory to practice. PhD, University of Northern Colorado. Roof, L. P. 2012. Making the change: from a teacher-centered to a leaner-centered environment: a phenomenological study. PhD,University of Phoenix.	300-312 11-12
Section C	Subhan, M. S. 2014. Current pedagogical teaching strategies being used by educators at the Kwazulu Natal College of Nursing campuses across varied subjects and their views regarding innovative methodolgies. Durban University of Technology.	148-149
Section D	Ellis, D. M. 2013. Applying learner-centered teaching in the nursing education classroom: from theory to practice. PhD, University of Northern Colorado.	1-17 117-122
Section E	Fiedler, R., Giddens, J. and North, S. 2014. Faculty experience of a technological innovation in nursing education. *Nursing education perspectives*, 35(6):388-389 Inkelas, K.K., Jones, J., Robinson, K. and Cole, R. 2013. Training the next generation of instructors: the effects of a pedagogy seminar on graduate students' use of a learner-centred paradigm. PhD, University of Virgina. Subhan, M. S. 2014. Current pedagogical teaching strategies being used by educators at the Kwazulu Natal College of Nursing campuses across varied subjects and their views regarding innovative methodolgies, Durban University of Technology.	388-389 4-4 148-149

Annexure 2: Permission letter from DUT IREC

DUT DURBAN UNIVERSITY OF TECHNOLOGY

Institutional Research Ethics Committee
Research and Postgraduate Support Directorate
2nd Floor, Berwyn Court
Gate 1, Steve Biko Campus
Durban University of Technology

P O Box 1334, Durban, South Africa, 4001

Tel: 031 373 2375
Email: lavishad@dut.ac.za
http://www.dut.ac.za/research/institutional_research_ethics

www.dut.ac.za

19 March 2018

IREC Reference Number: **REC 70/17**

Mr S D Ramlucken
26 Argyll Road
42 Highland Mews
Pinetown
3610

Dear Mr Ramlucken

Factors influencing the implementation of learner-centred approaches in nursing education in KwaZulu-Natal

The Institutional Research Ethics Committee acknowledges receipt of your notification regarding the piloting of your data collection tool.

Kindly ensure that participants used for the pilot study are not part of the main study.

In addition, the IREC acknowledges receipt of your gatekeeper permission letters.

Please note that FULL APPROVAL is granted to your research proposal. You may proceed with data collection.

Any adverse events [serious or minor] which occur in connection with this study and/or which may alter its ethical consideration must be reported to the IREC according to the IREC Standard Operating Procedures (SOP's).

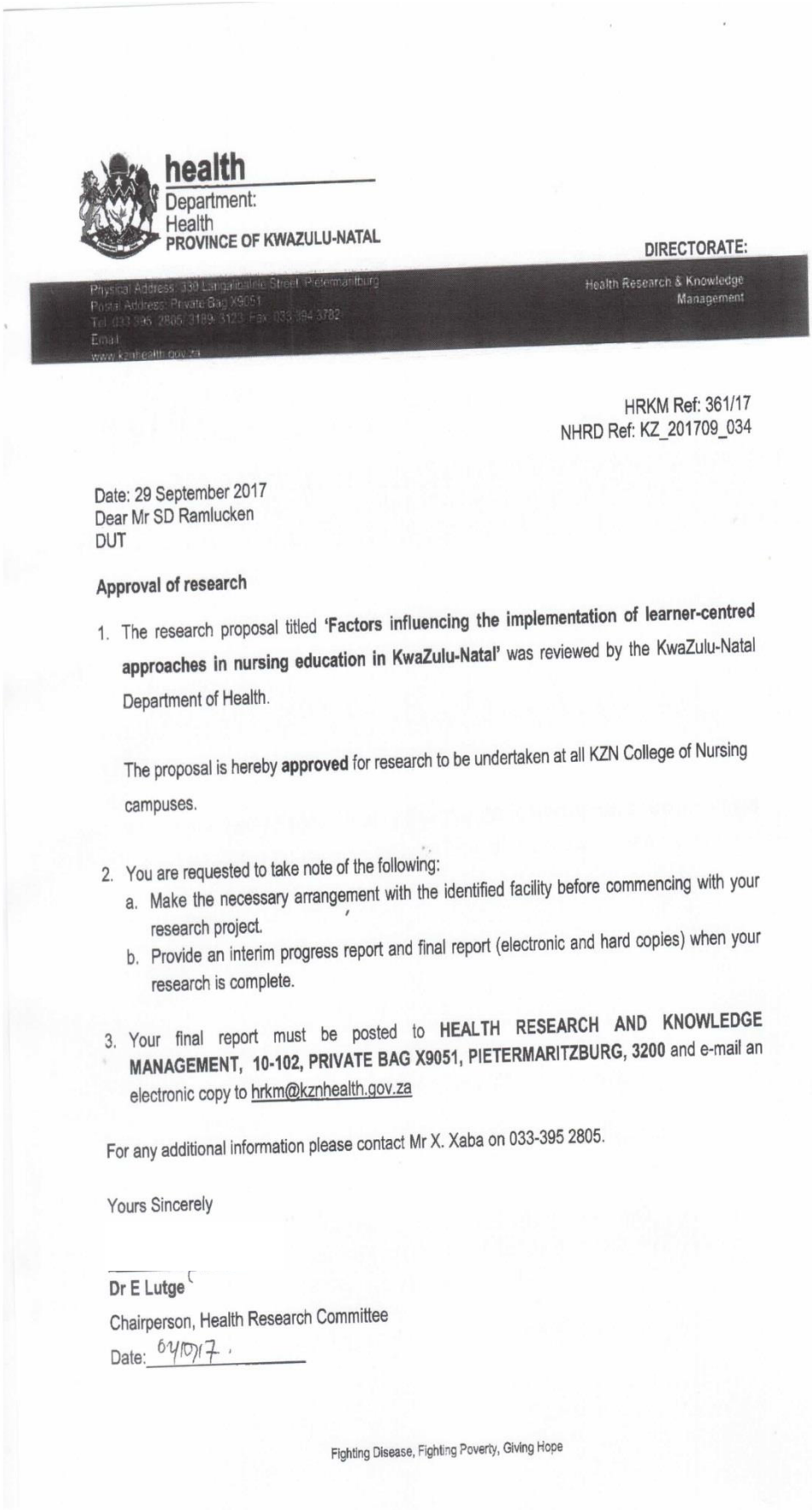
Please note that any deviations from the approved proposal require the approval of the IREC as outlined in the IREC SOP's.

Yours Sincerely,

Professor J K Adam
Chairperson: IREC

DUT DURBAN UNIVERSITY OF TECHNOLOGY
2019 -03- 19
INSITUTUTIONAL RESEARCH ETHICS COMMITTEE
P O BOX 1334 DURBAN 4000 SOUTH AFRICA

Annexure 3: Permission letter from DoH KZN Health and Knowledge Management



health
Department:
Health
PROVINCE OF KWAZULU-NATAL

DIRECTORATE:
Health Research & Knowledge Management

Physical Address: 330 Langalibalele Street, Pietermaritzburg
Postal Address: Private Bag X9051
Tel: 033 395 2805/ 3189/ 3123 Fax: 033 394 3782
Email:
www.kznhealth.gov.za

HRKM Ref: 361/17
NHRD Ref: KZ_201709_034

Date: 29 September 2017
Dear Mr SD Ramlucken
DUT

Approval of research

1. The research proposal titled **'Factors influencing the implementation of learner-centred approaches in nursing education in KwaZulu-Natal'** was reviewed by the KwaZulu-Natal Department of Health.

   The proposal is hereby **approved** for research to be undertaken at all KZN College of Nursing campuses.

2. You are requested to take note of the following:
   a. Make the necessary arrangement with the identified facility before commencing with your research project.
   b. Provide an interim progress report and final report (electronic and hard copies) when your research is complete.

3. Your final report must be posted to **HEALTH RESEARCH AND KNOWLEDGE MANAGEMENT, 10-102, PRIVATE BAG X9051, PIETERMARITZBURG, 3200** and e-mail an electronic copy to hrkm@kznhealth.gov.za

For any additional information please contact Mr X. Xaba on 033-395 2805.

Yours Sincerely

Dr E Lutge
Chairperson, Health Research Committee
Date: 6/10/17

Fighting Disease, Fighting Poverty, Giving Hope

Annexure 4: Permission letter from Kwazulu-Natal College of Nursing

health
Department:
Health
PROVINCE OF KWAZULU-NATAL

DIRECTORATE:
KwaZulu-Natal College of Nursing

Physical Address: 211 Pietermaritz Street, Pietermaritzburg 3200
Postal Address: Private Bag X 9089 Pietermaritzburg 3200
Tel: 033 264 7800 Fax: 033 394 7238 Email: sindizama.mthembu@kznhealth.gov.za
www.kznhealth.gov.za

Reference: Dr. S.Z. Mthembu
Date: 18 September 2017

Principal Investigator: Mr S Ramlucken
Student No: 21644766
Durban University of Technology

RE: **Gate Keeper Permission to conduct research at the KZN College of Nursing.**

TITLE: **Factors influencing the implementation of learner centred approaches in nursing education in KwaZulu-Natal**

Dear Mr Ramlucken

I have the pleasure in informing you that Gate Keeper permission has been granted to you as per the above request by the Principal of the KZN College of Nursing.

Data Collection site(s): Campuses- Addington, Benedictine, Charles Johnson Memorial, Edendale, Greys, King Edward, Madadeni, Ngwelezane, Prince Mshiyeni Memorial, Port Shepstone and RKKhan.

Please note the following:

1. Please ensure that you adhere to all policies, procedures, protocols and guidelines of the Department of Health with regards to this research.
2. This research can only commence once you have received approval from the Provincial Health Research Committee in the KZN Department of Health.
3. Gate keeper permission is therefore granted for you to conduct this research at the above identified campuses after consultation with the Campus Principals.
4. The KwaZulu-Natal College and its NEI's will not be providing you with any resources for this research.
5. You will be expected to provide feedback on your findings to the Principal of the KwaZulu-Natal College of Nursing.

Thank You

Dr. S.Z Mthembu
Principal: KZN College of Nursing

Annexure 5: Letter of Information

LETTER OF INFORMATION

Dear Participant

Thank for agreeing to be a part of this study by sharing your valuable contributions.

Title of the Research Study: Factors influencing the implementation of learner-centred approaches in nursing education in KwaZulu-Natal

Principal Investigator/s/researcher: Mr. Sanjay Dawraj Ramlucken (BACur)

Co-Investigator/s/supervisor/s: Dr. A Razak (PhD – Honorary Research Fellow)
Dr. T. S P Ngxongo (D Nursing - Lecturer)

Brief Introduction and Purpose of the Study: This study intends to determine the factors that influence the implementation of learner centred nursing education in KwaZulu-Natal. The role of the nurse is becoming increasingly complex, which demands higher levels of critical thinking and clinical judgement skills than previously expected. Instructional methods should promote active learning and teach students how to analyse and evaluate the pertinence of information and how to apply the information in various settings and situations. Traditional instructional strategies continue to occupy predominance in the nursing classroom, with lecture being the primary format for instruction. Therefore, the researcher wants to determine the factors influencing the implementation of a learner centred nursing education and the reason for nurse lecturers not transforming to a learner centred nursing education.

Outline of the Procedures: Data will be collected using a structured questionnaire that will be handed to nurse lecturers at the 10 campuses of the KwaZulu-Natal College of Nursing.

Risks or Discomforts to the Participant: This study will not impose any risk or discomfort to you.

Benefits: the study will assist in determining the factors influencing the implementation of a learner-centred nursing education in KwaZulu-Natal College of Nursing

Reason/s why the Participant May Be Withdrawn from the Study: You may withdraw from the study at any time with no penalties.

Remuneration: There will be no remuneration.

Costs of the Study: The researcher will bear any costs in this study.

Confidentiality: Will be maintained by the use of codes to protect the identity of participants. The master list of participants, codes and records will be kept under lock and key for a period of 5 years then destroyed by shredding. Research data on electronic devices will be deleted.

Research-related Injury: none

Persons to Contact in the Event of Any Problems or Queries:

Please contact me the researcher Mr. S.D. Ramlucken (Tel no. 084490015), my supervisor Dr. A. Razak (Tel no. 0837867282) or the Institutional Research Ethics administrator on 031 373 2375. Complaints can be reported to the Director: Research and Postgraduate Support, Prof S. Moyo on 031 373 2577 moyos@dut.ac.za

Annexure 6: Consent

CONSENT

Statement of Agreement to Participate in the Research Study:

I hereby confirm that I have been informed by the researcher, SANJAY DAWRAJ RAMLUCKEN (name of researcher), about the nature, conduct, benefits and risks of this study - Research Ethics Clearance Number: REC 70/17.

I have also received, read and understood the above written information (Participant Letter of Information) regarding the study.

- I am aware that the results of the study, including personal details regarding my sex, age, date of birth, initials and diagnosis will be anonymously processed into a study report.
- In view of the requirements of research, I agree that the data collected during this study can be processed in a computerised system by the researcher.
- I may, at any stage, without prejudice, withdraw my consent and participation in the study.
- I have had sufficient opportunity to ask questions and (of my own free will) declare myself prepared to participate in the study.
- I understand that significant new findings developed during the course of this research which may relate to my participation will be made available to me.

_____ _____ _____ _____

Full Name of Participant **Date** **Time** **Signature/Right humbprint**

I, SANJAY DAWRAJ RAMLUCKEN (name of researcher) herewith confirm that the above participant has been fully informed about the nature, conduct and risks of the above study.

Sanjay Dawraj Ramlucken	_____	_____
Full Name of Researcher	**Date**	**Signature**

_____	_____	_____
Full Name of Witness (If applicable)	**Date**	**Signature**

_____	_____	_____
Full Name of Legal Guardian (If applicable)	**Date**	**Signature**

Annexure 7: Letter to conduct pilot at R. K. Khan Nursing Campus

Annexure

26 Argyll Road

42 highland mews

Pinetown

3610

20 October 2017

The Principal

R. K. Khan Campus

Private Bag X004

Chatsworth

4030

Dear Mrs J Reddy

PERMISSION TO CONDUCT A PILOT OF THE DATA COLLECTION TOOL FOR MASTERS RESEARCH

I am currently registered for a Master's Degree in Nursing at the Durban University of Technology in the Department of Nursing. The proposed title of my study is **"Factors influencing the implementation of learner centred nursing education in KwaZulu-Natal"**. I hereby request permission to conduct a pilot of the data collection tool at your campus.

Approximately ten (10) nurse lecturers who are involved in the teaching of theoretical and clinical nursing within the campus would be required to take part in the piloting of the data collection tool. Participation is voluntary, and informed consent will be obtained from the participants. Confidentiality will be maintained at all times.

Please find a summary of the Research Proposal, Ethical clearance, Data collection tools, KwaZulu-Natal Department of Health approval letter and Gate keeper permission letter from the KZN College of Nursing

I hereby request your written permission to undertake this pilot of the data collection tool at your campus. Your support and permission will be greatly appreciated

Yours Sincerely

Mr S. D. Ramlucken

Annexure 8: Permission to conduct pilot at R. K. Khan Campus

health
Department:
Health
PROVINCE OF KWAZULU-NATAL

Physical Address : R. K. Khan Circle, Chatsworth, 4092
Postal Address : R. K. Khan Campus, Private Bag x 004, Chatsworth, 4030
Telephone : (031) 459 6187 Fax:(031) 401 5229 Email: jaya.reddy@kznhealth.gov.za
www.kznhealth.gov.za

KwaZulu Natal College of Nursing
R. K. Khan Campus

24 October 2017

Mr S.D. Ramlucken
Student No: 21644766
Durban University of Technology

Title: Factors influencing the implementation of learner-centred approaches in nursing education in Kwazulu-Natal

Re: Permission to conduct a Pilot of the data collection tool for Masters Research

Dear Mr Ramlucken

I have the pleasure in informing you that permission has been granted to you to conduct a Pilot of your data collection tool at the R. K. Khan Nursing Campus.

Kindly adhere to all policies, procedures, protocols and guidelines of the Department of Health with regards to the conduct of the Pilot.

Thank you

Mrs J Reddy
Campus Principal
R. K Khan Campus

Fighting Disease, Fighting Poverty, Giving Hope

Annexure 9: Letter to Addington Nursing Campus

26 Argyll Road

42 highland mews

Pinetown

3610

22 November 2017

The Principal

Addington Nursing Campus

P. O. Box 977

Durban

4000

Dear Mrs T.P Skakane- Masango

PERMISSION TO COLLECT DATA FOR MASTERS RESEARCH

I am currently registered for a Master's Degree in Nursing at the Durban University of Technology in the Department of Nursing. The proposed title of my study is **"Factors influencing the implementation of learner centred nursing education in KwaZulu-Natal"**. I hereby request permission to conduct the study at your campus.

A questionnaire will be used to collect data from Head of department, nurse lecturers and clinical lecturers who are involved in the teaching of theoretical and clinical nursing within the campus. Participation is voluntary, and informed consent will be obtained from the participants. Confidentiality will be maintained at all times. Please find a summary of the proposal, Ethical clearance and data collection tools.

I hereby request your written permission to undertake this study at your campus. Permission has been obtained from the Director of the KwaZulu-Natal College of Nursing and the KwaZulu-Natal Department of Health. Your support and permission will be greatly appreciated

Yours Sincerely

Mr S.D. Ramlucken

0844900015

Email: sanjaylucken@gmail.com

Annexure 10: Letter to Benedictine Nursing Campus

26 Argyll Road

42 highland mews

Pinetown

3610

22 November 2017

The Principal

Benedictine Nursing Campus

Private Bag X5002

Nongoma

3950

Dear Mrs M. Zibani

PERMISSION TO COLLECT DATA FOR MASTERS RESEARCH

I am currently registered for a Master's Degree in Nursing at the Durban University of Technology in the Department of Nursing. The proposed title of my study is **"Factors influencing the implementation of learner centred nursing education in KwaZulu-Natal"**. I hereby request permission to conduct the study at your campus.

A questionnaire will be used to collect data from Head of department, nurse lecturers and clinical lecturers who are involved in the teaching of theoretical and clinical nursing within the campus. Participation is voluntary, and informed consent will be obtained from the participants. Confidentiality will be maintained at all times. Please find a summary of the proposal, Ethical clearance and data collection tools.

I hereby request your written permission to undertake this study at your campus. Permission has been obtained from the Director of the KwaZulu-Natal College of Nursing and the KwaZulu-Natal Department of Health. Your support and permission will be greatly appreciated

Yours Sincerely

Mr S.D. Ramlucken

Telephone: 0844900015

Email: sanjaylucken@gmail.com

Annexure 11: Letter to Edendale Nursing Campus

26 Argyll Road

42 highland mews

Pinetown

3610

22 November 2017

The Principal

Edendale Nursing Campus

Private Bag X509

Plessislaer

4060

Dear Mrs N.C. Majola

PERMISSION TO COLLECT DATA FOR MASTERS RESEARCH

I am currently registered for a Master's Degree in Nursing at the Durban University of Technology in the Department of Nursing. The proposed title of my study is **"Factors influencing the implementation of learner centred nursing education in KwaZulu-Natal"**. I hereby request permission to conduct the study at your campus.

A questionnaire will be used to collect data from Head of department, nurse lecturers and clinical lecturers who are involved in the teaching of theoretical and clinical nursing within the campus. Participation is voluntary, and informed consent will be obtained from the participants. Confidentiality will be maintained at all times. Please find a summary of the proposal, Ethical clearance and data collection tools.

I hereby request your written permission to undertake this study at your campus. Permission has been obtained from the Director of the KwaZulu-Natal College of Nursing and the KwaZulu-Natal Department of Health. Your support and permission will be greatly appreciated

Yours Sincerely

Mr S.D. Ramlucken

Telephone: 0844900015

Email: sanjaylucken@gmail.com

Annexure 12: Letter to Greys Nursing Campus

26 Argyll Road

42 highland mews

Pinetown

3610

22 November 2017

The Principal

Greys Nursing Campus

Private Bag X9001

Pietermaritzburg

3200

Dear Mrs B. Shezi

PERMISSION TO COLLECT DATA FOR MASTERS RESEARCH

I am currently registered for a Master's Degree in Nursing at the Durban University of Technology in the Department of Nursing. The proposed title of my study is **"Factors influencing the implementation of learner centred nursing education in KwaZulu-Natal"**. I hereby request permission to conduct the study at your campus.

A questionnaire will be used to collect data from Head of department, nurse lecturers and clinical lecturers who are involved in the teaching of theoretical and clinical nursing within the campus. Participation is voluntary, and informed consent will be obtained from the participants. Confidentiality will be maintained at all times. Please find a summary of the proposal, Ethical clearance and data collection tools.

I hereby request your written permission to undertake this study at your campus. Permission has been obtained from the Director of the KwaZulu-Natal College of Nursing and the KwaZulu-Natal Department of Health. Your support and permission will be greatly appreciated

Yours Sincerely

_____

Mr S.D. Ramlucken

Telephone: 0844900015

Email: sanjaylucken@gmail.com

Annexure 13: Letter to King Edward VIII Nursing Campus

26 Argyll Road

42 highland mews

Pinetown

3610

22 November 2017

The Principal

King Edward Viii Campus

CNR Umbilo Road and Rick Turner

Dalbridge

Durban

4001

Dear Mrs S. Mkhize

PERMISSION TO COLLECT DATA FOR MASTERS RESEARCH

I am currently registered for a Master's Degree in Nursing at the Durban University of Technology in the Department of Nursing. The proposed title of my study is **"Factors influencing the implementation of learner centred nursing education in KwaZulu-Natal"**. I hereby request permission to conduct the study at your campus.

A questionnaire will be used to collect data from Head of department, nurse lecturers and clinical lecturers who are involved in the teaching of theoretical and clinical nursing within the campus. Participation is voluntary, and informed consent will be obtained from the participants. Confidentiality will be maintained at all times. Please find a summary of the proposal, Ethical clearance and data collection tools.

I hereby request your written permission to undertake this study at your campus. Permission has been obtained from the Director of the KwaZulu-Natal College of Nursing and the KwaZulu-Natal Department of Health. Your support and permission will be greatly appreciated

Yours Sincerely

Mr S.D. Ramlucken

Telephone: 0844900015

Email: sanjaylucken@gmail.com

Annexure 14: Letter to Ngwelezane Nursing Campus

26 Argyll Road

42 highland mews

Pinetown

3610

22 November 2017

The Principal

Ngwelezane Nursing Campus

Private Bag X20021

Emphangeni

3800

Dear Dr T Matsane

PERMISSION TO COLLECT DATA FOR MASTERS RESEARCH

I am currently registered for a Master's Degree in Nursing at the Durban University of Technology in the Department of Nursing. The proposed title of my study is **"Factors influencing the implementation of learner centred nursing education in KwaZulu-Natal"**. I hereby request permission to conduct the study at your campus.

A questionnaire will be used to collect data from Head of department, nurse lecturers and clinical lecturers who are involved in the teaching of theoretical and clinical nursing within the campus. Participation is voluntary, and informed consent will be obtained from the participants. Confidentiality will be maintained at all times. Please find a summary of the proposal, Ethical clearance and data collection tools.

I hereby request your written permission to undertake this study at your campus. Permission has been obtained from the Director of the KwaZulu-Natal College of Nursing and the KwaZulu-Natal Department of Health. Your support and permission will be greatly appreciated

Yours Sincerely

Mr S.D. Ramlucken

Telephone: 0844900015

Email: sanjaylucken@gmail.com

Annexure 15: Letter to Prince Mshiyeni Memorial Nursing Campus

26 Argyll Road

42 highland mews

Pinetown

3610

22 November 2017

The Principal

Prince Mshiyeni Memorial Nursing Campus

Private Bag X07

Mobeni

4062

Dear Mrs R. Bridgemohan

PERMISSION TO COLLECT DATA FOR MASTERS RESEARCH

I am currently registered for a Master's Degree in Nursing at the Durban University of Technology in the Department of Nursing. The proposed title of my study is **"Factors influencing the implementation of learner centred nursing education in KwaZulu-Natal"**. I hereby request permission to conduct the study at your campus.

A questionnaire will be used to collect data from Head of department, nurse lecturers and clinical lecturers who are involved in the teaching of theoretical and clinical nursing within the campus. Participation is voluntary, and informed consent will be obtained from the participants. Confidentiality will be maintained at all times. Please find a summary of the proposal, Ethical clearance and data collection tools.

I hereby request your written permission to undertake this study at your campus. Permission has been obtained from the Director of the KwaZulu-Natal College of Nursing and the KwaZulu-Natal Department of Health. Your support and permission will be greatly appreciated

Yours Sincerely

Mr S.D. Ramlucken

Telephone: 0844900015

Email: sanjaylucken@gmail.com

Annexure 16: Letter to Port Shepstone Nursing Campus

26 Argyll Road

42 highland mews

Pinetown

3610

22 November 2017

The Principal

Port Shepstone Nursing Campus

Private Bag X719

Port Shepstone

4240

Dear Mrs N.G. Cele

PERMISSION TO COLLECT DATA FOR MASTERS RESEARCH

I am currently registered for a Master's Degree in Nursing at the Durban University of Technology in the Department of Nursing. The proposed title of my study is **"Factors influencing the implementation of learner centred nursing education in KwaZulu-Natal"**. I hereby request permission to conduct the study at your campus.

A questionnaire will be used to collect data from Head of department, nurse lecturers and clinical lecturers who are involved in the teaching of theoretical and clinical nursing within the campus. Participation is voluntary, and informed consent will be obtained from the participants. Confidentiality will be maintained at all times. Please find a summary of the proposal, Ethical clearance and data collection tools.

I hereby request your written permission to undertake this study at your campus. Permission has been obtained from the Director of the KwaZulu-Natal College of Nursing and the KwaZulu-Natal Department of Health. Your support and permission will be greatly appreciated

Yours Sincerely

Mr S.D. Ramlucken

Telephone: 0844900015

Email: sanjaylucken@gmail.com

Annexure 17: Letter to Madadeni Nursing Campus

26 Argyll Road

42 highland mews

Pinetown

3610

22 November 2017

The Principal

Madadeni Nursing Campus

Private Bag X6642

Newcastle

2940

Dear Mrs J Hadebe

PERMISSION TO COLLECT DATA FOR MASTERS RESEARCH

I am currently registered for a Master's Degree in Nursing at the Durban University of Technology in the Department of Nursing. The proposed title of my study is **"Factors influencing the implementation of learner centred nursing education in KwaZulu-Natal"**. I hereby request permission to conduct the study at your campus.

A questionnaire will be used to collect data from Head of department, nurse lecturers and clinical lecturers who are involved in the teaching of theoretical and clinical nursing within the campus. Participation is voluntary, and informed consent will be obtained from the participants. Confidentiality will be maintained at all times. Please find a summary of the proposal, Ethical clearance and data collection tools.

I hereby request your written permission to undertake this study at your campus. Permission letters have been obtained from the Director of the KwaZulu-Natal College of Nursing and the KwaZulu-Natal Department of Health. Your support and permission will be greatly appreciated

Yours Sincerely

Mr S.D. Ramlucken

Telephone: 0844900015

Email: sanjaylucken@gmail.com

Annexure 18: Letter to Charles Johnson Memorial Nursing Campus

26 Argyll Road

42 highland mews

Pinetown

3610

22 November 2017

The Principal

Charles Johnson Memorial Nursing Campus

Private Bag X5503

Nqutu

3135

Dear Mrs B. Simelane

PERMISSION TO COLLECT DATA FOR MASTERS RESEARCH

I am currently registered for a Master's Degree in Nursing at the Durban University of Technology in the Department of Nursing. The proposed title of my study is **"Factors influencing the implementation of learner centred nursing education in KwaZulu-Natal"**. I hereby request permission to conduct the study at your campus.

A questionnaire will be used to collect data from Head of department, nurse lecturers and clinical lecturers who are involved in the teaching of theoretical and clinical nursing within the campus. Participation is voluntary, and informed consent will be obtained from the participants. Confidentiality will be maintained at all times. Please find a summary of the proposal, Ethical clearance and data collection tools.

I hereby request your written permission to undertake this study at your campus. Permission has been obtained from the Director of the KwaZulu-Natal College of Nursing and the KwaZulu-Natal Department of Health. Your support and permission will be greatly appreciated

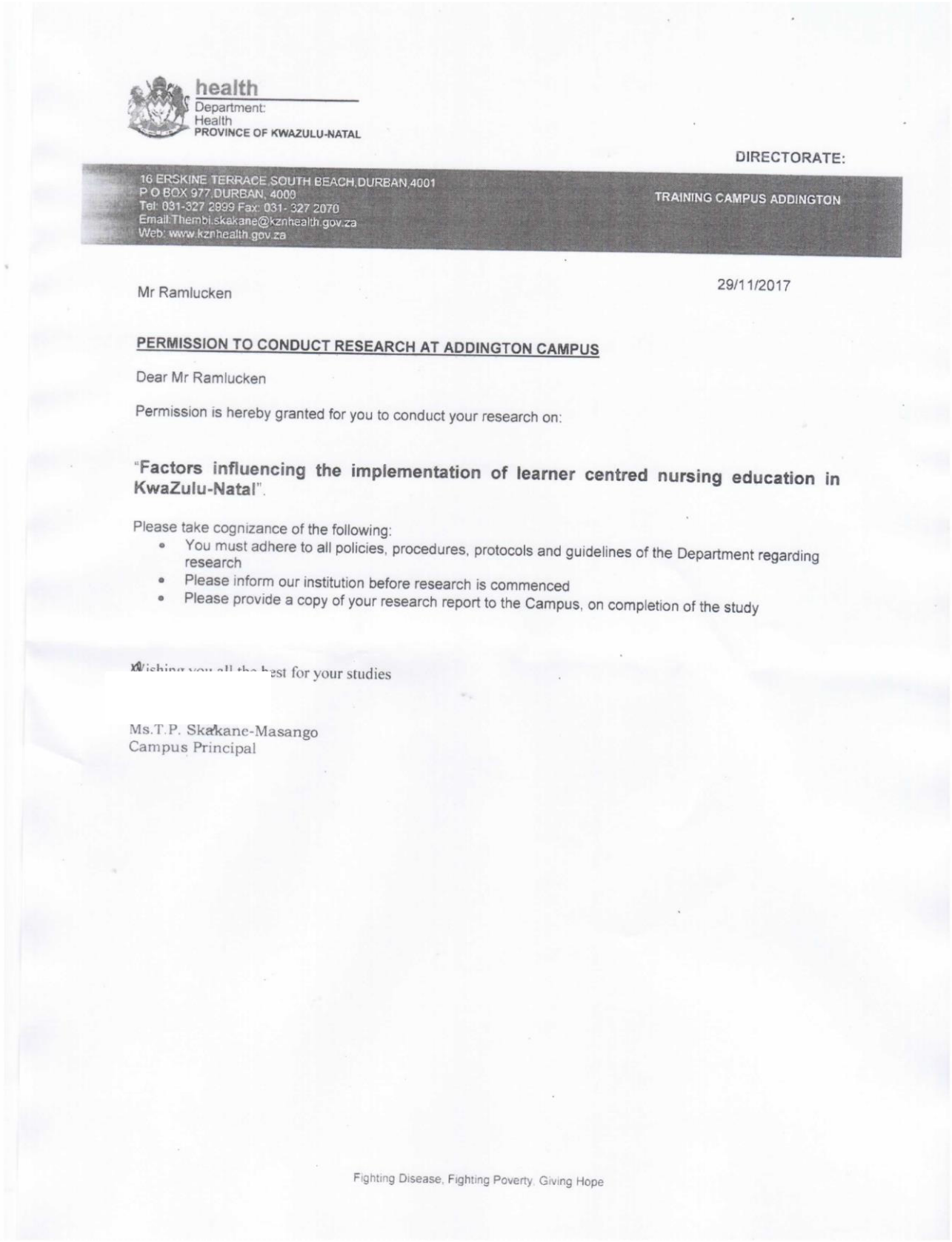
Yours Sincerely

Mr S.D. Ramlucken

Telephone: 0844900015

Email: sanjaylucken@gmail.com

Annexure 19: Permission letter from Addington Nursing Campus



health
Department:
Health
PROVINCE OF KWAZULU-NATAL

DIRECTORATE:

16 ERSKINE TERRACE,SOUTH BEACH,DURBAN,4001
P O BOX 977,DURBAN, 4000
Tel: 031-327 2999 Fax: 031- 327 2070
Email:Thembi.skakane@kznhealth.gov.za
Web: www.kznhealth.gov.za

TRAINING CAMPUS ADDINGTON

Mr Ramlucken

29/11/2017

PERMISSION TO CONDUCT RESEARCH AT ADDINGTON CAMPUS

Dear Mr Ramlucken

Permission is hereby granted for you to conduct your research on:

"Factors influencing the implementation of learner centred nursing education in KwaZulu-Natal".

Please take cognizance of the following:

- You must adhere to all policies, procedures, protocols and guidelines of the Department regarding research
- Please inform our institution before research is commenced
- Please provide a copy of your research report to the Campus, on completion of the study

Wishing you all the best for your studies

Ms.T.P. Skakane-Masango
Campus Principal

Fighting Disease, Fighting Poverty, Giving Hope

Annexure 20: Permission letter from Benedictine Nursing Campus

health
Department:
Health
PROVINCE OF KWAZULU-NATAL

DIRECTORATE: NURSING EDUCATION
KWAZULU NATAL COLLEGE OF NURSING
BENEDICTINE CAMPUS

Benedictine Campus Vryheid Nain Road 3950
Postal Address: P/Bag X5002 Nongoma 3950
Tel: 035 83170107 Fax: 035 8310760 Email: monica.zibani@kznhealth.gov.za
www.kznhealth.gov.za

Enquires Permission to conduct research
Date: 2017.11.23

Mr. S.D Ramlucken
26 Argyll Road
42 Highland mews
Pinetown
3610

PERMISSION TO CONDUCT RESEARCH AT BENEDICTINE CAMPUS

I have pleasure in informing you that you have been granted permission to conduct research at Benedictine Campus. Wishing you the best out this hard work

Warm Regards

M.N Zibani
Principal
Benedictine Campus

Annexure 21: Permission letter from Charles Johnson Memorial Nursing Campus

health
Department:
Health
PROVINCE OF KWAZULU-NATAL

Private Bag x 5555, Nquthu, 3135
Lot 92, Hlubi Street, Nquthu, 3135
Tel : (034) 271 6528 Fax (034) 2710094
E-mail :Busisiwe.simelane@kznhealth.gov.za

KwaZulu Natal College of Nursing
Charles Johnson Memorial Nursing Campus

Enquiries: Ms. BS Simelane

11.01.2018

Mr SD Ramlucken
26 Argyll Road
42 highland mews
Pinetown
3610

Dear Sir

PERMISSION TO CONDUCT THE STUDY

You are hereby granted permission to conduct the study on **"Factors influencing the implementation of learner centered nursing education in KwaZulu Natal".**

You are expected to comply with the ethical principles whilst collecting data.

I thank you

B.S Simelane (Principal)

CHARLES JOHNSON MEMORIAL
NURSING
2019 -01- 11
PRIVATE BAG X5555
NQUTU 3135

Annexure 22: Permission letter from Greys Nursing Campus

health
Department:
Health
PROVINCE OF KWAZULU-NATAL

Postal Address: Private Bag X 9001, Pietermaritzburg, 3200
Physical Address: 201 Townbush Road, Northern Park, Pietermaritzburg, 3200
Tel: 033 897 3503 Fax:033 897 3500 Email: busi.shezi@kznhealth.gov.za
www.kznhealth.gov.za

DIRECTORATE:
KwaZulu - Natal College of Nursing:
Grey's Campus

Reference: Mrs B.E. Shezi
Date: 29 November 2017

Principal Investigator: Mr S.D. Ramlucken
Student number: 21644766
Durban University of Technology

RE: Grey's Campus permission to conduct research study.

TITLE: Factors influencing the implementation if learner centred education in KwaZulu-Natal.

Dear Sir

I have a pleasure to inform you that permission has been granted to conduct your research study: Data collection.

We request to give us a feedback of your research study findings once you have completed.

Thank you

MRS BE SHEZI
CAMPUS PRINCIPAL

DATE

Fighting Disease, Fighting Poverty, Giving Hope

Annexure 23: Permission letter from Ngwelezane Nursing Campus

health
Department:
Health
PROVINCE OF KWAZULU-NATAL

DIRECTORATE:

NGWELEZANE NURSING CAMPUS
Private Bag X 20016, Empangeni 3880
Thanduyise Highway, Ngwelezane T/Ship
Tel.: 035 901 7094,
www.thabi.matsane@kznhealth..gov.za

KZNCN

Enquiry: Dr TE Matsane
Date: 08-01-2018

RE: Gate Keeper Permission to conduct research at Ngwelezane Campus

TITLE: PREFERRED LEARNING STYLES OF FIRST AND THIRD YEAR NURSING STUDENTS IN A DIPLOMA PROGRAMME AT A COLLEGE IN KWAZULU-NATAL: A COMPARATIVE STUDY

Dear Sir

The above research study refers. The permission to conduct this study at Ngwelezane Campus is hereby granted to you. You are therefore advised to adhere to the KZNCN RESEARCH POLICY with regards to this research.

Kindest Regards,

Dr TE Matsane
Campus Principal

Annexure 24: Permission letter from Prince Mshiyeni Memorial Nursing Campus

health
Department:
Health
PROVINCE OF KWAZULU-NATAL

KWAZULU-NATAL COLLEGE OF NURSING
PRINCE MSHIYENI MEMORIAL CAMPUS
Physical Address: Mangosuthu Highway, Durban, 4000
Physical Address: Private Bag X10, Mobeni, 4060
Tel: +27(031) 907 8313/ 8314 Fax: +27(031) 906 7772 Email: Rozana.Bridgemohan@kznhealth.gov.za
www.kznhealth.gov.za

Directorate: PRINCIPAL OFFICE

Date: 09 January 2018

Mr S Ramlucken
Durban University of Technology
Steve Biko Campus

Dear Mr S Ramlucken

Re: Permission to conduct a research study at Prince Mshiyeni Memorial Campus

Title of the study: Factors influencing the implementation of learner-centred approaches in nursing education in KwaZulu-Natal.

In response to your request dated 22 November 2017, I am pleased to inform you that your application to conduct your study at Prince Mshiyeni Nursing Campus has been granted.
I note with appreciation that you have provisional approval from IREC, Durban University of Technology.
Please abide by the stipulations of Kwa – Zulu Natal College of Nursing and KZN Department of Health. Kindly communicate the outcome of your study by submitting a written report to the Prince Mshiyeni Memorial Campus Principal

Thank you

Mrs. R. Bridgemohan
Campus Principal

Fighting Disease, Fighting Poverty, Giving Hope

Annexure 25: Permission letter from Port Shepstone Nursing Campus

health
Department:
Health
PROVINCE OF KWAZULU-NATAL

107 Marine Drive, Shelly Beach, 4265
Private Bag X719, Port Shepstone, 4240
Tel: 039-3155322 Fax: 039-3155325 Email.Nomantlane .cele @kznhealth .gov.za

KWAZULU-NATAL COLLEGE OF NURSING
PORT SHEPSTONE NURSING CAMPUS

Enquiries :NG Cele
Date: 27/11/2017

Attention: Mr S D Ramlucken

SUBJECT : REQUEST FOR PERMISSION TO CONDUCT RESEARCH AT PORT SHEPSTONE CAMPUS

Receipt of letters of approval from KZNCN and DUT for you to conduct a research on "**Factors influencing the implementation of learner centred nursing education in KwaZulu- Natal**" is hereby acknowledged.

Permission is hereby granted for you to conduct your study at Port Shepstone Nursing Campus. Please take note of the conditions as stated by the Kwa-Zulu Natal College of Nursing. It may not always be possible to see all the lecturers at the projected time due to other commitments such as clinical accompaniment conducted at distant clinical facilities and meetings.

Please specify your dates close to the time so that the campus can arrange a day on which most of the participants will be available.

Best wishes

Mrs N.G Cele
(ACTING CAMPUS PRINCIPAL)

KZN COLLEGE OF NURSING
PORT SHEPSTONE CAMPUS
2017 -11- 27
PRIVATE BAG X719
PORT SHEPSTONE 4240
TEL 039 3155325 FAX 039 3155325

Annexure 26: Permission letter from Madadeni Nursing Campus

Ramlucken Sanjay

From: Hadebe Jessie
Sent: 04 December 2017 11:39 AM
To: Ramlucken Sanjay
Subject: RE: Request for permission to collect data for Masters Research

Goodday Mr Ramlucken

Research Topic: "Factors influencing the implementation of learner centred nursing education in KwaZulu-Natal"

I hope you are well.

Kindly note that your request to collect data at the institution for your research is granted.

The conditions set for not disrupting lecturers and class teaching stand. Please ensure that

You inform the Campus timeously during January and March 2018 as to the specific dates you will be at the Campus.

Thank you

health
Department:
Health
PROVINCE OF KWAZULU-NATAL

FIGHTING DISEASE, FIGHTING POVERTY, GIVING HOPE

Jessie Hadebe
Vice Principal
KZNCN—Madadeni Nursing Campus
034– 3144431/ 034 3144617
086 513420178
jessie.hadebe@kznhealth.gov.za
www.kznhealth.gov.za

From: Ramlucken Sanjay
Sent: 30 November 2017 12:07 PM
To: Hadebe Jessie
Subject: Request for permission to collect data for Masters Research

Good day Mrs J. Hadebe

I trust that you are well

I am currently registered for a Master's Degree in Nursing at the Durban University of Technology in the Department of Nursing.

The proposed title of my study is **"Factors influencing the implementation of learner centred nursing education in KwaZulu-Natal"**. I hereby request permission to conduct the study at your campus between January 2018 and March 2018.

1

Annexure 27: Permission letter from Edendale Nursing Campus

Ramlucken Sanjay

From:	Majola Ntombizakhona
Sent:	06 February 2018 02:58 PM
To:	Ramlucken Sanjay
Subject:	FW: Request for permission to collect data for Masters Research
Attachments:	Permission letter Edendale Campus.pdf; AUTHORITY LETTER KZNCN 27 09 2017.pdf; DOH APPROVAL (RAMLUCKEN).pdf; Sanjay 14 August 2017 21 May 2017 QUESTIONNAIRE (2) (1).doc; Sanjay 14 August 2017 21 May 2017 PG 2a 2016 - Research Proposal and Ethics Checklist (1).docx

From: Majola Ntombizakhona
Sent: 06 February 2018 10:51
To: Ramlucken Sanjay
Subject: FW: Request for permission to collect data for Masters Research

Good Day Sir

Please provide specific time slots when you will be coming in to Edendale Campus , since the campus is off the clinical sites and lecturer availability is also influenced by clinical facilitation schedules which command lecturers to be in the clinical nursing science areas for clinical facilitation of all campus programs within Umgungundlovu District Institutions.

Thank you

Mrs NC Majola

Edendale Nursing Campus principal

health
Department:
Health
PROVINCE OF KWAZULU-NATAL

FIGHTING DISEASE, FIGHTING POVERTY, GIVING HOPE

Ntombizakhona Clementine Majola
CAMPUS PRINCIPAL
EDENDALE NURSING CAMPUS
033 3954691 / 033 3459477
033 3424863 / 033 3954692
Ntombizakhona.majola@kznhealth.gov.za
www.kznhealth.gov.za

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Annexure 28: Permission letter from King Edward VIII Nursing Campus

Ramlucken Sanjay

From: Mkhize Sithembiso
Sent: 09 January 2018 10:37 AM
To: Ramlucken Sanjay
Cc: Gasa Thabisile
Subject: RE: Request for permission to collect data for Masters Research

Importance: High

Good morning Mr Ramlucken

The staff has agreed to participate in your research study, most of the lecturers will be available in February.

In January we are having exams and marking

Thank you

health
Department:
Health
PROVINCE OF KWAZULU-NATAL

FIGHTING DISEASE, FIGHTING POVERTY, GIVING HOPE

Ms S.M Mkhize
Acting Campus Principal
King Edward VIII Campus
031 360 3106
031 206 1222
Sithembiso.Mkhize@kznhealth.gov.za
www.kznhealth.gov.za

From: Ramlucken Sanjay
Sent: 04 December 2017 02:50 PM
To: Mkhize Sithembiso
Subject: Request for permission to collect data for Masters Research

Good day Mrs S Mkhize

I trust that you are well

I am currently registered for a Master's Degree in Nursing at the Durban University of Technology in the Department of Nursing.

The proposed title of my study is **"Factors influencing the implementation of learner centred nursing education in KwaZulu-Natal"**. I hereby request permission to conduct the study at your campus between January 2018 and March 2018.

A questionnaire will be used to collect data from Head of department, nurse lecturers and clinical lecturers who are involved in the teaching of theoretical and clinical nursing within the campus. Participation is voluntary, and informed consent will be obtained from the participants.

Confidentiality will be maintained at all times.

Please find a summary of the proposal, Ethical clearance and data collection tools.

I hereby request your written permission to undertake this study at your campus.

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