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FACULTY OF COMMUNITY AND HEALTH SCIENCES

RESEARCH REPORT

Title: Factors that promote or inhibit students' success to qualify for entrance to the South African Nursing Council R2175 final examination

Student Name: Nosiphiwo Olga Marepula

Student Number: 2968170

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Supervisor: Professor FM Daniels

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ABSTRACT

Factors that promote or inhibit students' success to qualify for entrance to the South African Nursing Council R2175 final examination

Introduction: The enrolled nurse is an important category of nurse in the health team. Regulation 2175 is the course leading to enrolment as a nurse, according to the South African Nursing Council, in terms of the Nursing Act 33 of 2005 as amended. This category has completed the training programme R2176 which is a course leading to enrolment as an auxiliary nurse. This level of training occurs in accredited hospitals schools, however it appears, from observation and personal experience, that pupil nurses experience many problems and programme does not have high pass rates. There has been no formal investigation of this situation.

The aim of this study was to investigate factors that promote or inhibit nursing students' success in qualifying for entrance to the SANC R2175 final examination at one of the nursing schools in the Western Cape.

The objectives were (i) identify factors that promote or inhibit learning amongst the pupil nurses; and to (ii) determine the perceptions of educators with regard to factors related to the pupil nurses success or failure.

Methods: The study used a multi-method approach. A quantitative, explorative and descriptive design was applied. Target population (N=90), consisted of student nurses following the course leading to registration as an enrolled nurse (R2175) according to Nursing Act No 33 of 2005. Convenience sampling was used to select participants to respond to a questionnaire which was used to collect data. In qualitative approach the target population consisted of

nurse educators (N=6). Non-probability, purposive sampling was used to select participants for the focus group interview.

Ethics: Ethical approval to conduct the study was obtained from the University of Western Cape and the University of Cape Town. Informed consent was obtained from the students and from the educators prior the commencement of the study.

The questionnaire was pretested to ensure to ensure reliability and validity. Quantitative data was analysed with the help of the University statistician and was expressed in frequency tables and factor analysis. Qualitative data was analysed using coding to develop categories and themes with the help of the supervisor.

Results: The results showed that academic performance by place of residence had a significant difference between the urban and rural students ($x^2_{(1)} = 0.014$). The marital status of the student showed significant association with academic performance ($x^2_{(3)} = 0.021$). The association between support from family and academic performance was significant ($x^2_{(1)} = 0.008$). The focus group discussion with the nurse educators confirmed and supported some of the finding of the student survey.

Recommendations: Some of the researcher's recommendations included: a review of the re-cruitment and selection process; review of the curriculum; review of the value of bursary; re-instatement of the bridging programme and the implementation of preceptors in the clinical facilities.

DECLARATION

I, Nosiphiwo Olga Marepula, declare that the dissertation submitted by me for the Magister (Nursing) Degree at the University of Western Cape is my own independent work and has not previously been submitted by me at another University. I further cede copyright of the script in favour of the University of Western Cape.

Name: Nosiphiwo Olga Marepula

Date:

Signed:

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LIST OF ABBREVIATIONS	MEANING
DAC	Department of Arts and Culture
DoE	Department of Education
DPSA	Department of Public Service and Administration
ETQA	Education and Training Quality Assurance
HESA	Higher Education South Africa
LOLT	Language of Learning and Teaching
PAWC	Provincial Administration Western Cape
PGWC	Provincial Government of the Western Cape
R2176	Regulation leading to enrolment as an auxiliary nurse
R2175	Regulation leading to enrolment as an enrolled nurse
RSA	Republic of South Africa
SANC	South African Nursing Council
SAQA	South African Qualifications Authority
WHO	World Health Organisation
HWSETA	Health and Welfare Sector Education and Training Authority
UNESCO	United Nations Education Scientific and Cultural organization

CHAPTER 1

ORIENTATION TO THE STUDY

1.1. Background

The main function of education is to inculcate new knowledge, skills and the development of understanding, insight and independent thought in a variety of fields of study and at various levels (Wessels, 2005). Nursing education and training plays an important role in the production of well-trained and properly groomed nurses. Such education and training is a means to ensure that students become competent and efficient individuals who are able to provide quality nursing care to the patients. The skills mix of professional categories is important when patients have to be cared for holistically. However, there seems to be a shortage of enrolled nurses in South Africa, a phenomenon whose origins can be traced back to the socio-economic impact of apartheid on South Africa (SANC, 2005).

1.1.1. Education system during apartheid

Apartheid-era legislation saw the creation of a schooling system that discriminated between people on the basis of race and economy, and economy and politics. Apartheid South Africa thus had distinctly different schooling provisions for the various race categories identified by apartheid legislation. This difference could be seen in the inequitable provision of resources.

The education provision for Black people was characterized largely by a meagre allocation of resources, overcrowded classrooms and insufficient and poorly qualified teachers. The teacher-student ratio in schools meant for Black people was 1:39 and higher, whereas it was 1:18 in schools meant for White people (Garson, 2004). Apartheid-era legislation ensured

disproportionate funding of White and Black education provision. The large numbers of students in Black schools impacted negatively on the quality of teaching and learning at such schools. For example, slower learners could not get the teacher attention they needed and opted for memorization or rote learning (Pohlandt-McCormic, 2005). Unsurprisingly, this led to a high drop-out rate and a low pass rate in Black schools. Bantu education thus created a state of affairs in Black schools characterized by educational poverty, with school leavers fit to be employed only as low-waged unskilled labour, thus paving the way for the creation and maintenance in South African society of an economically impoverished class.

Due to their poor school-leaving results, Black students had fewer chances to access further and higher education. This resulted in them entering low paid unskilled jobs (Cloete & Bunting, 2000). The less education the students received, the fewer the choices they had in the working world and in accessing more education.

To compound their woes, Black students who did access higher education found it difficult to access financial loans because the banks would not give loans to Black and Coloured students (Garson, 2004). This decision of the banks was partially sighted in racial prejudice, but was, ironically, actually a sound financial decision: as the only kind of work available to a young Black person in apartheid South Africa was low paying, banks would regard it too high a risk lending to that demographic group.

1.1.2. Education post-apartheid

Prior to 1994 there were various factors that impeded personal development and upward movement in the nursing profession. One of these is the failure of the education system to

acknowledge the additive nature of cognitive development with the resultant non-recognition of prior learning. This led to unnecessary duplication of learning content as learners' progress to the next learning encounter and saw learning programmes as existing in isolation. This impedes personal development as the major purpose of recognition of prior learning is to enable learners to achieve upward and lateral career mobility (SAQA no 58 of 1995).

After more than a decade into South Africa's post-apartheid democracy, the secondary schooling system still produces only a small elite corps prepared for effective entry into higher education (DoE, 2001). Post-apartheid South Africa has eleven official languages (DAC, 2003). Constitutionally, all 11 languages are accorded equal status and recognition. However, most schools including tertiary education institutions still use English as the language of learning and teaching (LOLT), (Painter & Baldwin, 2004). Language of learning and teaching refers to the language medium which learning and teaching including assessment take place (Myburg, Poggenpoel and Van Rensburg, 2004).

This dominance of English as a medium of academic instruction occurs regardless of the Language Policy stipulated in the Constitution of South Africa. It also ignores the growing awareness that mother tongue education is more effective than bilingualism or the use of a second language as the LOLT. Given the difficult working conditions and added demands placed on teachers of English learners, it would be expected that both training and guidance on how to address this challenge would be provided, instead the teachers of English learners were largely left to take care of themselves with inadequate guidance, resources and training (Rumberger & Arellano, 2003). This has resulted in learners not succeeding at secondary level. As a consequence, the number of Black and other English second language-speaking individuals

gaining acceptance to university is decreasing (RSA, 1998).

Even though a radical shift in policy content and direction occurred, numerous problems continued within higher education sector and in policy processes. These policy weaknesses are evidenced in various areas such as funding for historically disadvantaged institutions and for students from disadvantaged backgrounds. This means that the socio-economic realities of apartheid continue in South Africa, as there is still a disparity between the advantaged and disadvantaged.

South Africa's Budget was designed to foster equity and redress the imbalances of the past, but in reality, the group which benefited most and had the best access to education resources are the previously advantaged white learners and new generation of middle- class black students (Chisholm, 2004). White parents then move their children out of those schools. As a result, the race, class and cultural backgrounds of teachers in these schools are increasingly different from that of the pupils that they teach, while the school's cultural ethos remains untransformed, as the teachers strive to preserve the status quo as it was during the apartheid years (Samuel & Sayed, 2003).

1.1.3. The effect of the challenges in the general education system on nursing education

This inequality in education continued amongst the health fraternity under the South African Nursing Council. The South African Nursing Council through the Nursing Act, Act no 50 of 1978, created discrimination in nursing. There was segregation in the practice of the profession as well as nurses' opportunity to progress within the profession. In nursing, discrimination and

oppression led to lower salaries, unequal access to professional development training programmes and career advancement opportunities, and consequent hostility from colleagues in the workplace (Dong & Temple, 2001).

The Bantu Education Act no 47 of 1953 widened the gaps in educational opportunities for different racial groups. The aim of the Act was to rationalise to keep the black education inferior. The government tightened its control over religious high schools by eliminating almost all financial aid and many churches were forced to sell their schools to the government. The curriculum in the Black schools was designed to prepare children for menial jobs (Department of Education, 1953).The training of Black nurses in the homelands took place in certain hospitals and only a few would be taken for training. Therefore few black nurses graduated and the communities were growing with rampant diseases. Apartheids segregation and racial policies continued to exclude black nurses from belonging to South African Nurses Association (Searle, 1965). The aim of the Association was to weld the nurses of South Africa into a united band of workers, encourage cooperation and maintain the highest ideal of nursing in South Africa. This is the nutshell has contributed to the shortage of nurses in South Africa and because the education of Black nurses was inferior it prevented them from accessing the Higher education. This resulted in academic and career stagnation as Black nurses remained within the same qualification indefinitely (SANC, 2005).

Nursing education prior 1994 had the following programmes that were recognised by SANC (SANC, 2005).

- R425, a comprehensive four year diploma course leading to registration as a professional

nurse, midwife, community health and psychiatric nurse;

- R683, a two-year diploma course leading to registration as a registered nurse;
- R2175, a two -year course leading to enrolment as a nurse; and
- R2176, a one-year course leading to enrolment as a nursing auxiliary.

After the first South African democratic elections in 1994, a number of Acts guide the current process of transformation aiming at redressing the imbalances of the past. The SANC, under the Nursing Act, Act no 33 of 2005, is charged with the responsibility to promote and maintain standards in nursing education in the Republic of South Africa. The SANC is thus faced with the responsibility of monitoring the nursing education processes of various programmes offered at a variety of institutions to ensure that the nursing care given to the public is of sufficient quality, is safe and culturally sound and is within the ambit of the Constitution, Act no 101 of 1996. To this end, the SANC had to consider the South African Qualifications Authority Act, Act no 58 of 1995, regarding accreditation, certification and maintenance of national standards in education and training (SANC, 2005).

Despite the transformation that occurred in nursing, there were still nurses who did not qualify to enter higher education to be trained as professional nurses. Such nurses instead opted to register for the R2175 nursing programme which leads to enrolment with the SANC as an enrolled nurse. Currently, in the Western Cape, there is evidence that the enrolled nurses (R2175) are struggling to qualify for entry into SANC examination (SANC, 2005). This group is at the centre of interest of this study. SANC Regulation 2175 provides guidelines for the programme leading to

enrolment as an enrolled nurse.

Nurses enrolled on the R2175 and R2176 programmes write SANC examinations. The R2175 programme is a continuation of the R2176 programme and hence runs over a period of two years, but with this nursing school under study it is a one year course as the nurses have already completed R2176. For the students to be able to gain entry to SANC examination, they must meet certain criteria. The criteria for admission to R2175 programme, the student must obtain 50% in theory and 60% in practica. For reasons not known the R2175 students fail to obtain 50% in theory and 60% in practical assessment and are therefore terminated before they gain entry to the SANC examination.

1.1.4. Programmes offered by the South African Nursing Council

The training of professional nurses occurs at universities (higher education) and accredited nursing colleges under Regulation R425 and R683 respectively and the training leading to enrolment as a staff nurse and as an auxiliary nurse takes place at both public and private colleges and nursing schools.

The majority of the nursing schools in the province are affiliated to hospitals, with such hospitals, being the main host, are having an increasing say in the governance of the nursing schools. They are the service providers to the nursing schools. The learners are sourced from the public health facilities within the provisional health department. The learners are adults from a diverse range of age, education, and cultural and work experiences. This diversity provides rich cognitive, psychomotor and affective skills that ensure a variety of skills mix.

The bulk of the students hail from tertiary hospitals e.g. Groote Schuur, Red Cross Children's and Tygerberg Hospitals. These hospitals are highly specialised and operate on a referral basis. The nurses that come from Red Cross Children's hospital experience problems as they have to deal with the nursing care of adults. They struggle with the paradigm shift from being paediatric to adult orientated when n he clinical practice. The remaining group of students come from secondary level hospitals and the community health services. The challenge with the community health institutions is that the care is on preventive and promotive levels whereas at tertiary institutions it is curative and highly specialised health. Students therefore need to adapt to changes as this could impact negatively on their success.

The learners are adults who have multiple roles in their lives. Lecturers have to take cognisance of these roles to ensure that learners can commit to the learning process and ultimately to lifelong learning. Language is often a barrier as English is a third or fourth language for the majority of nursing students. Numeracy is a challenge as most learners seem to lack basic numeracy skills. Studies show that students who have poor reading and writing skills seldom achieve academic success (Pretorius, 2005). South Africa, like other countries around the world, experiences a shortage of nurses as the nurses are migrating to other places looking for greener pastures (WHO, 2006). This brain drain has resulted to decline in efficient and experienced workforce. South Africa's solution is to address the challenges of shortage of nurses by training R2175 nurses that would act as a pool for training the bridging course (professional nurses). This will result to the maintenance of adequate nursing workforce thus a move towards meeting the Millennium Goals (Department of Health, 2012/2013).

There is an ongoing worldwide phenomenon of a shortage of nurses. The World Health Organization (WHO) estimated that there was a global shortage of about 4, 3 million nurses and midwives in 2010. South Africa had 32 000 vacant registered nurses posts in 2010, whilst it was estimated that the country will have a shortage of 20815 nurses in 2015. The WHO absolute minimum nurse staffing norm or standard is 200 nurses for 10000 individuals (1: 50). The number of professional nurses is dwindling on the one hand while, on the other hand, there is an escalation in the population size and burden of diseases. This situation requires a skill mix of nurses as well as an increase in the output of professional nurses in the Western Cape Province. The correct mix of nursing skills is required to improve the quality of patient care. This means that training bodies have to ensure that nurses are trained to be skilled, competent and knowledgeable practitioners (Department of Health Care Services, 2010). The shortage of qualified nurses in South Africa is highlighted as a barrier to achieving the goals of the Department of Health of making health care services accessible, affordable, equitable and acceptable (Aiken, 2007). To curtail this problem the government must ensure that the R2175 programme which provides a pool for the training of professional nurses through a bridging course is persuaded (SANC, 2005).

Another challenge in the system of nursing education has been the dual status of the student nurse as both learner and employee on which patient care is dependent. This compromises the learning needs of students. Their employee status therefore contributed negatively to the effectiveness of nursing education programmes (Little, 2000). In the student learning environment students are prepared theoretically and have to correlate the theory with practice but this hardly happens as professional nurses whose function is to mentor student nurses – are

overworked and undervalued. As a result, student nurses are often not able to link or apply theory to practice. The study conducted by Carlson, Kotze, Van Rooyen (2003) in the Republic of South Africa (RSA) confirmed that there was unavailability of support from the experienced nurses because of time constraints.

The arrival of a democratic political dispensation saw the birth of the recognition of prior learning, with curricula allowing multiple exit levels for various programmes. According to the White Paper on Education & Training there was a shift from content-based to learner-centred education, with the educator acting as facilitator within the learning environment (Department of Education and Training, 1995). Despite the above changes the students still depend on memorisation of work or content in order to pass the examination with or without understanding the material. Such memorising does not store knowledge in the long term memory, with the result that the information is easily forgotten (Lujan & Dicarlo, 2005).

1.1.4.1. Selection criteria of R2175 programme

The selection criterion of SANC for R2175 programme is clear. The candidate must have passed at least an academic standard eight (Grade 10 or NQF 2) or possess an equivalent qualification. In the case of a candidate who has passed R2176, proof of current enrolment as an auxiliary nurse is required.

Each nursing school has its own selection criteria which takes into cognizance those candidates who were previously disadvantaged so as to redress the imbalances of the past. Such practice is in line with the Employment Equity Act, Act no 55 of 1998 (RSA, 1998). In South Africa the

Employment Equity Act is very clear about what counts as affirmative action. Besides affirmative action there are other factors that are to be considered: entrance tests known as Test of Essential Academic Skills and the Nursing Entrance Test. Both these tests measure skills in mathematics, reading and critical thinking. Previous work experience in the related field is also considered as well as the letter of recommendation from the supervisors. Letters from the supervisors are not comprehensive in nature as they only concentrate at where the person is working.

The current R2175 one-year programme was recommenced in the nursing school under study in 2005. Nursing schools follow a "Block system" that enables students to rotate through various practical placement areas while attending class for at least four blocks in one academic year. The block system allows students to integrate theory (acquired in class) with practice (undertaken in the clinical areas of rotation). Various teaching strategies appropriate to adult learning are used by the educators. There are two annual group intakes of approximately one hundred students each in July and October. The large student enrolment results in large, cramped and overcrowded classrooms (Jacobs, Vakalisa and Gawe, 2012). This creates problems as the students are to be taught and accompanied by the same educators in the clinical areas. Students' accompaniment was compromised as it was difficult for the educators to pay extra attention to slow learners (Otive, 2006). Students terminated their studies because they failed the theory component and failed to meet the practical completion dead-line as the following studies have shown.

The assessment results from 2004 to 2011 showed some deterioration. Studies were done by different researchers on various factors that are thought to negatively affect students' performance. These researchers were Magerman, 2011; Roos, 2009; Kyoshaba, 2009; Cheraghi, Salaski and Ahmadi, 2008; Mabuda, Potgieter and Alberts, 2008 and Danesty, 2004. The crux of

the matter is that the students are still struggling to gain entry to SANC examinations. The researcher therefore seeks to provide baseline information on the factors affecting students' performance and this information would help to remedy the situation. The following scores report on the number of students who were competent and not yet competent to enter SANC examinations. Competency was set at 50% and was calculated by using all continuous assessment marks of students (PAWC Nursing School Statistics, 2005-2012).

Table 1.1: Percentage of students competent or not yet competent to enter SANC examinations for the period 2005-2012

Intake	**Year**	**Not competent**		**Competent**		**Total**	
		No	**%**	**No**	**%**		**%**
July	2005-2006	20	52.6%	18	47.4%	38	100
October	2005-2006	22	55%	18	45%	40	100
July	2006-2007	18	47.4%	20	52.6%	38	100
Oct	2006-2007	20	50%	20	50%	40	100
July	2007-2008	19	55.9%	15	44.1%	34	100
October	2007-2008	20	57.1%	15	42.9%	35	100
July	2008-2009	20	50%	20	50%	40	100
October	2008-2009	20	55.6%	16	44.4%	36	100
July	2009-2010	33	64.7%	18	35.3%	51	100
October	2009-2010	22	55%	18	45%	40	100
July (study sample)	2010-2011	32	56.1%	25	43.9%	57	100
October (study sample)	2010-2011	18	54.5%	15	45.5%	33	100
July	2011-2012	24	54.5%	20	45.5%	44	100
October	2011-2012	20	55.6%	16	44.4%	36	100
TOTAL						**562**	**100**

The above percentages were calculated using the continuous assessment records of students in the nursing school under study. The table shows that there was an increase in non-competency rate between July 2010 to 2011 (56.1%) and a decline in the competency rate (43.91%). The results between October 2010 to 2011 showed an increase of 54.5% in non-competency rate and a decline of 45.5% in competency rate. This means that there were few students who were legible for entry to SANC examination. Between July 2010 and October 2011 out of 90 students only 35 students were eligible to be to the SANC final examination. A total of 55 students had to terminate their studies. The college policy states it clearly that a student should obtain at least 50% first time to qualify for SANC entry examination. If the student fails to obtain 50%, compulsory remedial action should be given and the student will be given a second chance to take the test. Failure to obtain 50% after the second attempt will result in the learner's studies being terminated. The implication for this was that R2175 was not producing sufficient trained enrolled nurses. The researcher therefore identified the need to investigate the possible factors promoting or inhibiting students qualifying for entry to SANC examination.

1.2. Problem Statement

Available statistics show that approximately 51% of student nurses registered for R2175 programme at a hospital college in the Western Cape fail to qualify for entry to SANC final examination and as a result terminate their studies. It is not yet known what factors prohibit the student nurses from qualifying for entry to SANC final examination. Therefore, it became essential to investigate possible factors promoting or inhibiting students' success at this specific nursing school.

1.3. Aim of the Study

The purpose of the research is to investigate factors that promote or inhibit nursing students' success in qualifying for entrance to the SANC R2175 final examination at one of the nursing schools in the Western Cape.

1.4. Objectives of the Study

The objectives of the study were to:

- Identify the factors that promote or inhibit learning amongst student nurses.
- Determine the perceptions of educators with regard to factors related to student nurses' success.

1.5. Research Questions

- What are the factors that promote or inhibit students' success in qualifying for entry to the R2175 SANC examinations?
- What are educators' perceptions regarding factors that promote or inhibit nursing students' success?

1.6. Significance of the Study

The results of the study could be used to structure academic support programmes for nursing students, including tutoring and mentoring programmes. The admission criteria could be reviewed so that the right calibre of student is selected. The problem of scarce skills can be addressed as this will ensure that the patients are nursed holistically.

The strategic plan is the brain child of the 2011 Nursing Summit, whose recommendation was to

improve nursing education, training and practice in order to strengthen the role played by the nurses in achieving the government's vision of "Healthy life for all South Africans" (Department of Health, 2013).

New knowledge as to the factors that promote or inhibit nurses' success can be discovered to improve the current actions used in nursing and this includes research-related clinical nursing and nursing education. The findings will help nursing school administrators to review their recruitment and selection strategies to ensure improved academic performance. The report will also be a source of reference for other researchers intending to study academic performance of nursing students.

1.7. Research Methodology

A brief description of the research methodology that is applied in this study is described and a more in-depth discussion is presented in chapter 3. A mixed method approach was adopted for the study where both quantitative and qualitative data was collected. Using both approaches allowed the researcher to incorporate the strengths of each method so as to provide a more comprehensive picture of what is being studied (MacMillan & Schumacher, 2006). A descriptive, cross-sectional, non-experimental design was used in the quantitative part of the study. A survey questionnaire was developed to collect data from student nurses. Descriptive research provides valuable data on the current status of things and does not involve any manipulation of independent variables (McMillan & Schumacher, 2006). Survey designs according to Creswell (2003) permits the researcher to gather information from a large sample of people in a relatively quick and inexpensive way. The qualitative part of the study adopted a

semi-structured interview in the form of a focus group. Focus groups elicit a multiplicity of views and emotional processes within a group context (Burns & Grove, 2001).

1.8. Data Analysis

Data analysis means that the researcher had to make sense of the data collected to be able to communicate findings. Quantitative data is analysed numerically. The researcher will use tables, figures and graphs to present the findings. The researcher will make use of the university statistician. Content analysis was done on the transcribed focus group discussion (Eysenbach, 2000).

1.9. Ethical Considerations

Ethics is defined as the study of moral standards and values (Terre Blanche & Durrheim and Painter, 2004). Social researchers have to take into consideration the effects of the research on participants and act in a way that will ensure that their dignity as human beings is preserved at all times (Cohen, Manion, & Morrison 2007).

1.9.1. Permission

The research proposal was approved and received ethical clearance by the University of the Western Cape, Higher Degrees and Research Grant Committees respectively (See Appendix 1). Ethical clearance and project registration was also granted by the Research Ethics Committee of the University of Cape Town. The registration number is 443/2011 and is valid for a year (See Appendix 2). Permission to conduct the study was obtained from the Medical Superintendent of the hospital, the Deputy Director of Nursing and the Head of the Nursing School.

1.9.2. Informed Consent

The respondents must be fully informed about the purpose of the research; the method and procedure to be followed; the duration of the study; the nature of the participation expected of them; the way in which the results will be used and disseminated; and the manner in which confidentiality and privacy will be maintained (Brink, 2001). The student nurses and the educators that were going to participate in the study were also requested in writing to give written consent as a proof of voluntary participation in the study after they were informed about the purpose of the study (See Appendices 3 and 4). They were not coerced into giving consent and the fact there were no monetary benefits for participation in the study was clarified. The reason behind the granting of permission is to protect the participants or respondents from any harm that might occur during the study be it physical or emotionally.

The following principles were adhered to:

- Confidentiality: confidentiality may be defined as being "entrusted with another's secret affairs." It refers to the obligation of the researcher to safeguard all information gathered for the purpose of the research. The principal investigator should be considered accountable for the maintenance of confidentiality (Creswell, 2009). Confidentiality means that the information provided by respondents will not be published in a way so as to link the information to the subjects (Polit & Hungler, 2009). Students were assured that confidentiality would be maintained at all times as no names were required. In this study confidentiality was maintained by keeping collected information in a safe place, with only the researcher having access to it. Participants and subjects were assured in writing that all information would be

used for the purpose of research only. Only the researcher had access to the participants' contributions to the study.

- Voluntary participation: each student nurse was told that participation is voluntary, that they could refuse participation if they wished to do so and that refusal to participate would not involve penalty or loss of benefits whatsoever (Burns & Grove, 2001). During the execution of this investigation, extra caution was taken against any coercion, especially in respect of R2175 pupil nurses by virtue of them being students.
- Anonymity: it is vital for a researcher to respect the privacy of the people who assist in the research. Anonymity means that the researcher has no way of tracing individual responses to individual participants. The researcher does not know the identity of the participants, numbers or pseudonyms may be used to refer to different participants. The identities of the subjects were not revealed when reporting on the study. Pseudo names were used so that the information cannot be linked to specific participants. The results of the study will be published and no names will be revealed. Anonymity was maintained as there were no names written anywhere in the questionnaire. There is therefore no way to link the responses to particular respondents. The name of the institution where the research was conducted remains anonymous (Bandman & Bandman, 2002).
- Respect and privacy: The researcher demonstrated respect for participants at all times. According to Cohen, Manion and Morrison (2007) researchers should treat the information provided as well as how the manner in which the information is disseminated, with sensitivity. The researcher did not probe into the personal life of any of the participants; the only questions asked were related to the research question. Extreme care was taken in reporting on research findings so that it would not in any way be intrusive to the participants. Partici-

pants were given the opportunity to read the transcriptions of interviews afterwards to ensure that the meanings assigned to their views were correct.

1.10. Clarification of Concepts

A concept can be interpreted differently by different individuals or discipline. To avoid this, concepts have to be operationalized to enable the researcher and the reader to share the same understanding of the concept used. The common concepts used in this study are listed below:

1.10.1. Educator

Or tutor is used interchangeably and is defined as a nurse who teaches nursing in a formalised education setting. Nurse educators are critical players in assuring quality educational experiences that prepare the nursing workforce for a diverse, ever-changing health care environment (SANC, 2005).

Generally it means a registered nurse who has an additional qualification as a nurse tutor that is recognised by the South African Nursing Council (SANC). Contextually it will refer to a registered nurse tutor who is directly engaged in the education and training of student nurses and is currently employed at the nursing college.

1.10.2. Facilitator

Someone who skilfully helps a group of people understands their common objectives and assists them in planning to achieve these objectives without taking a particular position in the discussion. Facilitator in this study will mean an educator or a clinical mentor that allows the student to take a more active role in his/her learning.

1.10.3. Learning

Seen by Fraser and Bosanquet (2006) as a process of knowledge construction.

1.10.4. Learning styles or cognitive styles

Learning styles are seen as strategies which are capable of being learned and are ways of adapting the material or its method presentation to enable the individual to deal with it effectively (Diseth, 2002). In this study learning styles refer to the preferred way in which an individual learns.

1.10.5. Nursing education

Viewed as a method by which nursing students are guided, assisted, and promoted which enables them to learn the art and science of nursing so that they can apply it to the nursing of people in need of such care.

For the purpose of this study nursing education will mean leading the students and pupil nurses from a state of not knowing to that of knowing, from being fully dependent to partially dependent or independent in the nursing profession.

1.10.6. Nursing school

A nursing training institution where a programme leading to enrolment as a nurse or a nurse auxiliary is offered in the Republic of South Africa.

1.10.7. Programme

Means a purposeful and structured set of learning experiences that leads to registration as a nurse (SANC, 2005).

1.10.8. Pupil nurse

Refers to a person who is registered for a programme leading to enrolment as a nurse in any nursing institution in the Republic of South Africa according to the SANC regulation R2175.

1.10.9. Remedial classes

Classes intended to correct or improve deficient theoretical or practical skills in a specific subject (Mellish, Brink and Paton, 2000).

1.10.10. Success

Means that the learner obtains 50% pass with the first attempt on formative assessment and completed the practical assessment by the stipulated date and obtained a 60% pass.

1.10.11. Teaching

A behavior that makes learning possible in another person (Gravett, 2005). In this study teaching means imparting knowledge and skills to students who are neophytes, moving them from a state of not knowing to that of knowing and from dependence to independence.

1.11. Organization of the Study

The report of this study is organized as follows:

Chapter 1 presents an overview of the study and introduces it by providing a background to it. It then proceeds to outline the aims, objectives and significance of the research project, and concluded with an explanation of methodology, data analysis and terminology.

Chapter 2 encompasses the review of literature.

Chapter 3 contains a detailed discussion of the research methodology as applied in this research study.

Chapter 4 contains the data analysis, interpretation and discussion of the findings are presented.

Chapter 5 contains the conclusions and recommendations based on scientific evidence.

1.12. Conclusion

In this chapter, the researcher described the rationale for this study, as well as the research goals and objectives. A brief introduction of the research methodology being applied during this research study was presented. The following chapter gives a detailed discussion of the literature review, which assisted in placing this study into perspective.

CHAPTER 2

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Introduction

In this chapter, the literature study being performed to obtain scientific information about factors that promote or inhibit students to gain entry to SANC examination in different educational spheres, nationally and internationally is discussed. The literature review is a synthesis of the secondary literature that pertains to the research problem of a dissertation. It is done by collecting all the available information on the research topic. The previous research done on the topic and the gaps in the knowledge on the topic are also indicated. The literature review therefore is a discussion of available information on the research topic and it summarizes arguments and ideas, describes the intellectual progression of a field, and evaluates sources (Hofstee, 2006).

In an academic context, all research is based on previous research (Badenhorst, 2008). As such, a literature review will always start when a dissertation topic and research question is selected and refined (Mouton, 2001). Selecting a topic and defining a research question is the first steps undertaken in any research study. Definition of the research question involves finding out what has been done before – and this is where the literature review will start. The literature review ends with the analysis and interpretation of the results. A literature review is therefore entrenched in every step of the research process (Mouton, 2004).

Doing the literature review allows the researcher to determine whether there are gaps in knowledge. The following purposes of a literature review, as indicated by (Badenhorst, 2008; Mouton, 2001), apply to this study. Literature relevant to the study will be discussed. Data col-

lected assist the researcher to answer the research questions and address the research problem (Boaduo, 2005).

There are purposes or reasons behind reviewing literature, and these will be elaborated upon below:

Reviewing literature related to the area of enquiry familiarizes the researcher with the available information and previous research conducted. This enables the researcher to avoid reinventing the wheel, saves time and actually prevents the researcher from making the same mistakes as previous researchers. Knowing what research has been done before enables the researcher to situate her study in an existing body of knowledge through the identification of a gap in that body of knowledge. It also ensures that the researcher's study is not merely a duplication of another study. It enhances or updates the researcher's knowledge regarding the selected topic. It also presents a theoretical framework for the study that helps the researcher build an argument for her own study.

The literature study also assists in identifying information and ideas that may be relevant to the project. It provides intellectual balance by presenting opposing views to those put forward by the researcher. To ensure that the study will lead to the production of new knowledge (originality), the researcher will avoid duplicating something that has already been done. The literature review must therefore be current and comprehensive.

The literature review for this study focused on the following themes: literacy, lack of educators, clinical placement, physical environment (classroom), socio-demographics of the students and finance. Socio-demographics refer to the age, experience, race, level of education of the students as these can have an impact on their academic success.

The internet was used. It is a major source for scholarly journals, current news, books, credible magazines, general information and other relevant content. It is an easy way to conduct an extensive search in a short time. Other databases such as those that cover Cambridge journals and PubMed were also searched. Relevant material such as government reports and discussion papers were also used. Manual searches for academic journals that were not indexed in electronic databases and electronic journals were also deemed essential. Theses and Dissertations of South African universities were viewed (Meyer, Naudé, Shangase & van Niekerk, 2009). Standard scientific books of reputable authors were consulted.

The researcher used the following keywords and phrases for conducting the search as these were deemed central to the study:

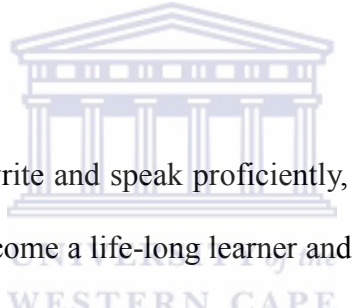
Barriers to nursing education; factors promoting success rate among students; factors inhibiting success among students; literacy/language and pass or failure rate; lack of finance and success rate; clinical placement as a barrier to learning; level of education and student success; shortage of fully trained staff impacting on success; learning styles and success; physical learning climate and success or failure rate; the impact of students socio- demographics on academic success or failure.

In the following section the literature relevant to the study will be discussed in terms of framing possible answers to the research problem.

2.2 Factors impacting on success in qualifying for entry to the SANC examination

Studies were done by different researchers on other factors that are thought to negatively affect students' performance. Therefore the researcher seeks to look at other factors that have not been researched. This study seeks to investigate some of these factors. They are as follows:

Language or literacy problems; lack of resources in the form of educators, mentors and facilitators; and overcrowded clinical placement areas. Secondly: financial resources which include equipment, library facilities, lack of classrooms and lastly the socio demographics of nurses e.g. home circumstances, age, resources at the community, family income, and educational background.



2.2.1 Language or literacy

Literacy is the ability to read, write and speak proficiently, to compute and solve problems, and to use technology in order to become a life-long learner and be effective in the family, workplace and community (Landsberg, Kruger & Nel, 2005). In the September 2009 edition of University World News, a pilot national benchmark tests revealed that only 7% of students were proficient in mathematics, only a quarter fully quantitatively literate and fewer than the half possessed academic literacy skills. The multilingual policy was introduced in South Africa because of literacy problems among students where English was used as a medium of instruction. Multilingualism encouraged the use of mother tongue in the classroom, taking into account the fact that the majority of South Africans speak indigenous African languages (MacGregor, 2004). Mother tongue also termed as first language or L1 is a language a person has learned from birth or within the critical period or that a person speaks the best and so is often the basis for sociolinguistic identity (Sinha, Banerjee, Sinha & Shastri, 2009).

The South African Department of Education (2002) advocated that in a multilingual country like South Africa, learners need to achieve high levels of proficiency in at least two languages. Policymakers in the South African Department of Education (1997a) promoted the advancement of bi- or multilingualism so that learners were afforded the opportunity to develop and value their home language, literacy and their culture. They should respect other languages, literacy and cultures in a multicultural society both locally and internationally and should have a shared understanding of South African culture that is common to each of its citizens.

Richards and Schmidt (2002) define a second language as any language learned after one has learnt one's mother tongue. The second language that should be taught to all learners in South Africa is English. English fulfils many important functions in business, education and government. Learning in English is thus necessary to be successful within such contexts.

English has become the most used language in almost all major social institutions, be it political, governmental, educational, judicial or media institutions. Ngubane (2002) believes that English enjoys maximum usage in South African government institutions and all public spheres and has become the lingua franca of public life.

Many institutions may have limited but effective foundation, literacy and numeracy programmes to better equip struggling students to fulfil the demands of higher education study. With the majority of students now African, this means that the majority of South African students in higher education may be studying through a language medium that is their second or, in some cases, third language. The effect of this can be devastating, and can be seen in some phenomena as high number of dropouts, high failure rates and low graduation rates.

“Difficulties with the medium of instruction are undoubtedly a contributing factor to poor performance, and impact on success and throughput rates,” according to a draft report produced for the vice-chancellors' association Higher Education South Africa (HESA) by the National Benchmark Tests Project. In terms of academic literacy, the tests showed that 47% of the students were proficient in English, the dominant language of higher education. But almost the same proportion - 46% - fell into the 'intermediate' category while 7% had only 'basic' academic literacy. Student performance strongly suggests that universities need to provide “extensive support in language development - not only for a small minority of registered students, but for almost half of them.” The challenges facing students were even greater in quantitative literacy and mathematics (MacGregor, 2004).

The acquisition of more than one language needs to be encouraged in South Africa for reasons such as access to tertiary education, employment, communication, personal fulfilment and finance. Language barriers prevent some people from achieving progress, specifically academic progress. However, one must be cautious not to place a higher status on one official language at the expense of the others. Languages do not enjoy the same status in practice. Status is determined pragmatically and not sentimentally (Baloyi, 2002).

Pretorius (2002), commenting on the phenomenon of South African students who have literacy and numeracy problems, claims that these impede the success of especially Black students. Because of their poor reading and English proficiency levels, they are poorly equipped to cope with the demands of study at tertiary level. The poor literacy levels in South Africa constitute a national educational crisis.

This perception of inadequate language proficiency was echoed by Professor Tom Lodge of the University of Witwatersrand, who claimed that "Getting a university exemption is a modest achievement. Passing English as a second language in school does not guarantee literacy or competence in written English…." (MacGregor, 2004).

"The language of academic tuition is English, the text books are in English yet the students are English second language students." Academia in South Africa is characterised by a First World culture, yet the students enrolled at such academic institutions live a Third World culture. First World refers to predominantly westernized, industrialized societies with strong traditional cultural and other bases, in which the majority of inhabitants have a superior standard of living (Pretorius, 2002).

Language is one of the most powerful transmitters of culture both in conveying and reinforcing the rules. In other words language provides humans with foundational knowledge that guides them in making sense of their world and their education. Learning periods are strenuous for both the learners and educators and knowledge and skills acquisition is problematic (Crawford, 2004).

Many of these students have to decode English into their mother tongue and thereafter re-interpret their thoughts into English. Not only does this mean that many students are thus frightened to ask questions because of poor levels of English competency, but having to translate information often means that part of original meaning is lost or misinterpreted. All this reflect on their second language proficiency (Mavundla & Matomele, 2002).

In some rural areas English is looked upon as a foreign language. Educators themselves have low levels of English proficiency. They teach students in the vernacular and hand out notes to learners to memorise (Jackson, 2000). This has resulted in a superficial approach to learning and the ability to regurgitate information that has been memorized is promoted over the acquisition of insight (Pickworth, 2001).

Hardman and Ng'ambi (2003) cited the lack of reading and writing skills as a factor contributing to poor academic success. Lack of competency in the foundation skills of reading and writing translates into inadequacies at post-graduate level.

Higher education institutions in South Africa regard the lack of language proficiency as a major contributor to academic failure. Student nurses lack study skills and when they enter the programme, the educators lack the time to address the issue as the curriculum is overcrowded. The knowledge and use of study skills are seen as a contributing factor to academic proficiency (Raab & Adam, 2005).

Research study by Marcelo and Carola Suarez Orozco (2001) was conducted in Boston among Latino students on students' academic outcomes. The findings pointed out that Latino students' self-esteem is diminished and that contributes to their depressed academic outcomes. The poor educational outcomes are related to school organisation, culture and school climate, unchallenging curriculum and inappropriate and poor instruction and the lack of resources. The number of Latino administrators, teachers and staff who share cultural identity is very small and results in instructional and social disconnection and ultimately a journey that often ends in failure.

Preece and Godfrey (2004) argue that expertise in academic literacy practices is crucial for all students to succeed. They advocate a more explicit and dynamic approach to the teaching of academic literacy practices.

2.2.2 Lack of educators

Brain drain is a serious challenge facing many African countries. The loss of highly qualified nurses has caused harm to institutional capacity, to the quality of teaching and learning and to research. The consequence of such migration is that it reduces the capacity of institutions to admit more students as the staff-student ratio keeps increasing (Teffera & Albach, 2004).

South African Department of Education highlights the need for educators to have sound subject content knowledge, and be empowered with teaching strategies and resources that enable them to teach in an effective way. The National Teacher Education Audit 1995 revealed that the majority of the South African educators are either under-qualified or unqualified to teach. Many educators are frequently absent, thus reducing the essential teaching and learning time (Miller, 2008).

Educators complain that the classes are too big which makes it difficult to attend to learners' individual needs (Chang & Ni, 2003). Large classes hinder educators' implementation of the teaching-learning process. Harmer (2000) also finds out in his study that large classes bring difficulties to both teachers and students and process of teaching and learning.

Whole class teaching hampers the identification of individual learner's problems and learner progression at the individual pacing. The educator is unable to assess the individual learner's

progress and hence individual remediation becomes impossible. Learners differ in grasping subject matter, some learn at a slower pace whilst others learn fast. Individual academic support is rather far-fetched. The educators find it difficult to spend quality time with the learners as they are wearing many caps e.g. setting examination papers, doing administration work, marking tests, attending to meetings, changing curricular and too much paper work (Clarkson & Hodgkinson, 2007).

South Africa is experiencing shortage of librarians in the schools and nursing colleges. This has resulted to educators taking over the duties of the librarians despite the fact that they do not possess library skills. This has also posed a challenge as educators' engagement time to students has become limited (Book, 2002). Computers alone are not enough to provide students with the comprehensive skills needed to use computers. The educators should be trained so as to be computer literate. They have to incorporate computer skills into teaching methods. The computer-student ratio is 1:137. According to the Minister of Education computer literacy to all government teachers has to be at a ratio of 1:40 in six years.

Figlio and Kenny (2006) reported positive relationships between individual teacher performance incentives and student achievement. The teachers' salaries have declined. Low wages have made it difficult to attract and retain highly qualified academic personnel. The low level of teachers' salaries has largely contributed to poor education outcomes at tertiary level (Podgursky, 2003).

There is also the time spent at home by educators on preparation, assessment and administration related to teaching. The administrative responsibilities of the educators have increased over recent years and have come to be regarded as burdensome (Chisholm et al, 2005). Increases in

workloads and demands on academics have had a palpable effect on morale and satisfaction of staff, and ultimately on student success (Aston & Molassiotis, 2002).

The Employment Equity Act, Act No. 55 of 1998, has also aggravated the problem. Its duty is to admit those students who had been excluded from further education by decades of racial discrimination. The widened access resulted in an increased enrolment of black students at institutions of higher education with a view to redress the imbalances of the past (RSA MoE 2005b of 1). This has resulted in under-prepared students entering the programme and failing to succeed at the end of the course.

The higher number of learners compromises the teacher-learner ratio as required by the South African Nursing Council regulations. The teaching and accompaniment of learners will not be fulfilled as the ratio is currently 1:24 thus exceeding the stipulated ratios. This seriously compromises the quality of the training programme as the competence and safety of practitioners training at the facility may not be guaranteed (SANC, 2005).

In a study that was conducted in Texas, in 2002, it revealed that there was a shortage of more than 400 000 registered nurses. Nursing shortage refers to a situation where the demand for nursing professionals such as professional nurses exceeds the supply either locally, nationally and internationally. Nursing shortage is not necessarily due to a lack of supply of trained nurses in a jurisdiction. In some cases perceived shortages occur simultaneously with increased admission rates of students into nursing schools. The shortage would mean that there will be fewer professional nurses in the clinical areas to educate students as education is one of the functions of a professional nurse. On the other hand the available nurse educators could not meet

the demands of the increasing student enrolment required to meet the nursing shortages needs. The at-risk learners were predicted, and were those who had poor verbal and written communication, poor reading comprehension, poor mathematical skills and poor study skills. Educators are considered the primary facilitators for student success (Higgins, 2004). The decline in the number of nurses graduating has resulted in the shortage of educators as the pool for professional nurses diminishes.

The nurse educators are aging, and there is global migration as the educators look for greener pastures. The aging of educators poses a threat as there is a reduced pool of younger nurses to replace them when they retire. This means that fewer nursing students will be enrolled in the program. There are less clinical mentors in the clinical areas. Mentoring is one of the key mechanisms for facilitating learning on students while on practice placements (NMC, 2008a). The mentors act as teachers, counsellors, and creators of learning opportunities. They reinforce the teaching function thus ensuring that theory- practice integration is taking place. The students are left without proper supervision and nurturing because there are few mentors. The students success is compromised (Billay & Yonge, 2003). Lakasing & Francis (2005) argue that nurse lecturers are not active clinicians and this tends to create theory-practice gap that mentors have to redress during student practice placement.

From the Maldives, Aminath Saeed reported that the opportunities for career progression in nursing were limited. Training facilities were poor and the profession not attractive to the young people with potential (WHO, 2010). The International Council of Nurses has established the International Nursing Education Network in conjunction with the National League for Nursing in USA to address the shortage of educators. This inaugural meeting was held in Durban, South Africa July 2009 (WHO, 2010).

Brendtro and Hegge (2000), assert that there was shortage of nursing educators as the teachers were hitting retirement age. This was also echoed by Hinshaw (2001). Shortage of educators would mean that the students were not supported effectively in the physical environment and that they were suffering academically. Mullen (2003) pointed out that the "trend of older nurses pursuing graduate degrees may be indicative of an increasing average age of those who pursue nursing over the age of 24 years and working full time (Compton, Cox & Laanan, 2006). One of the challenges facing training institutions is also the difficulty of attracting qualified nurses to teaching positions in the midst of a nursing shortage. This therefore shows itself as a vicious cycle which continuously aggravates the problem of the shortage of nurses. In this situation, even if there are people willing to take up the nursing profession, lack of educators can work as a hindrance. The non-competitive salaries and lack of support also hinder recruitment and retention of academics in the field of nursing (Brendtro & Hegge, 2000).

The Report of the Portfolio Committee on Higher Education and Training that took place in Giyani (2009) revealed that unqualified lecturers were appointed because administrators could not find other qualified lecturers to fill the vacancies created by the resignation of qualified lecturers. Unqualified lecturers are likely to provide lower quality education. Qualified lecturers were attracted to lucrative packages offered by private sector and the department could not meet the salary demands of these lecturers. In a study that was conducted in Togo in 2005 it was found that students taught by unqualified teachers perform worse than those taught by qualified teacher (Vegas & De Laat, 2003).

The South African Nursing Council recommends a ratio of 1:15 that is 1 tutor for 15 students. This will ensure that the learning-teaching process is effective, interaction between tutor- students is good and the slow learners are identified quickly and remedial support given. This could also mean that the learning style of each student is considered. The large student numbers can impact on the academic achievement of students if logistical problems are not taken care of. These problems can be infrastructure, physical and human resources (Leufer, 2007).

The issue of poor academic performance of students in Nigeria has been of much concern to all. Large class sizes do not allow individual students to get attention from the teachers which invariably lead to low reading scores and poor academic performance (Driscoll, Hacoussis & Svonny, 2003).

In a study that was done in Maryland by Crowley, Dunnington and Raymond (2004) on the retention of faculty staff there was a grave concern of shortage of staff on the programme for nursing administrators. The ageing of nursing faculty and their subsequent retirement poses a serious dilemma. Qualified students are turned away from programmes due to shortages in the clinical areas. Attracting nurse educators is difficult. Barriers include high clinician salaries of and the demand for doctoral preparation. Once educators are recruited, retention is another challenge. The nursing educators are viewed as clients and nursing colleges as providers. The new educators must cope with various stressors such as faculty ambiguity, lack of experience in classroom teaching, lack of knowledge in how to devise teaching methodology appropriate for under 24 and middle-aged learners, and, low remuneration (Allan and McClellan, 2004).

Educators in South Africa therefore seem to perceive themselves as powerless and believe that the education department does not provide them with the necessary support hence they are

leaving the country (Mohamed & Khuthula, 2005). Maybud (2006) cited in the Nursing Update commented that emigration is embedded in the personal right to freedom of movement. According to Geyer (2004), negative effects of the brain drain are further seen in the clinical areas where the students may not get sufficient training, support and exposure due to lack of appropriate skills and expertise. Clinical teaching staff numbers are inadequate for supervising students and are therefore left on their own. In the classroom the students are experiencing problems of being taught, supervised and mentored by less experienced lecturers. Competency is compromised including theory-practice integration.

2.2.3 Clinical placement

The clinical learning environment is a complex interactive of forces within the clinical setting that influences clinical learning by students. The purpose of planned clinical experiences is to enable students to develop clinical skills, integrate theory with practice, apply problem-solving skills, develop interpersonal skills and become socialized into the formal and informal norms of the nursing profession. Clinical learning activities provide real-life experiences and opportunities for transfer of knowledge to practical situations (Oermann & Gaberson, 2009).

Clinical placement can result in a more enriched form of learning that can contribute more effectively to the development of necessary skills and knowledge that students require to become competent practitioners. Although practice-based placement learning can offer student nurses opportunities to enrich their learning and develop clinical skills there are problems associated with this type of educational approach. Due to the need to deliver care to the expanding numbers of patients with multiple health and social problems, clinical practice is often a frenetic activity. This problem is often exacerbated by poor staffing levels. To add to that, it has been argued that

many practitioners currently do not have the necessary knowledge and skills to provide effective facilitation to student nurses (Spouse, 2001).

According to Page, Loots and Du Toit (2005) the following factors are said to hinder learning: poor communication between learners and their educators; inadequate staffing levels evidenced in a shortage of senior staff to nurture the learners; students who show disinterest; an ever-busy ward area resulting in a lack of supervision of learners; and lastly, poor standards of equipment which hamper opportunities for the learners to practice the skills they have acquired.

Working in the clinical area simultaneously allows knowledge to be gained and applied. This can result in a more enriched form of learning that can contribute more effectively to the development of the necessary skills and knowledge students require becoming competent practitioners (Page, Loots and Du Toit, 2005).

The primary function of professional nurses is to render quality patient care. At the same time, they are required to participate in the practice training of student nurses in academic hospitals where student nurses do the clinical part of their training programme. The scope of practice of the registered nurse is explained explicitly in regulation R2598 of the South African Nursing Council (SANC, 2005) and the educational function of the professional nurse can be deduced. It seems logical that, if nursing colleges rely on professional nurses to accompany student nurses in the clinical setting, nursing colleges should provide the educational part of professional nurse's involvement in the education and training of student nurses' skill development.

Professional nurses working in the clinical setting with students have a major influence on such

students' performance. They have the ability to promote and facilitate student learning or cripple students' ability to apply skills, knowledge, and accommodate new learning in the clinical practice. Support from the workplace is critical. Students should be given more time to study. There should be adequate resources to enable the students to practice the skills, thus bridging the theory-practice gap (Rangeley & Arthurs, 2004).

Given the dominant role clinical teachers play in the education of a student nurses, establishing and maintaining a healthy relationship between the two parties is crucial. The primary relationship of the clinical teachers and students nurses can be eroded if clinical teachers are autocratic. It is therefore important that they provide instruction or feedback appropriately, not in the presence of clients or other student nurses. They are expected to keep a professional distance that enables the students to develop independence, which facilitates the learning process. Because of the shortages previously mentioned, clinical teachers consistently and inappropriately take over the responsibility for client care from student nurses and, by so doing, deprive the student nurses of the opportunity to practise and exercise clinical decision-making. This, in return, creates the theory-practice gap that could lead to student nurses not succeeding in their course (Mabuda et al, 2008).

Facilitators accompany the students in the clinical areas by supporting and nurturing them. Facilitators see themselves as resources for learning, rather than as didactic instructors who have all answers. They stress that they are engaged in a democratic, student-centred enhancement of individual learning and that the responsibility for setting the direction and methods of learning rests as much with the learners as with the educators. Facilitators are described as being in a "helping relationship" which offers exciting possibilities for the development of creative,

adaptive autonomous persons. The students develop competency and efficiency and are able to integrate theory to practice (Cheraghi et al., 2008).

Students in the clinical areas are often thrown into unplanned activities with patients and other health care providers. The clinical learning environment is an interactive network of focus within the clinical setting that influences clinical learning by students. The planned clinical experience is to enable students to develop clinical skills, integrate theory with practice, apply problem-solving skills, develop interpersonal skills and become socialized into the formal and informal norms, protocols and expectations of the nursing profession and health care system (Cheraghi et al., 2008).

Cele, Gumede and Khubeka (2004) contend that professional nurses in clinical areas are not always actively involved in clinical teaching, the reason being that there is a shortage of staff. This could impact on the pass rate of student nurses as they become stagnant in the clinical areas. Increased work load and limited time to complete work is another factor that causes ward staff to be reluctant to supervise students. The professional nurses see the students as an added burden and believe the increased workload restricts them in creating learning opportunities for the students (Cele et al., 2004).

In a study conducted by Mabuda et al (2008) the findings indicated that there were aspects which impacted negatively on student nurses' clinical experience such as lack of teaching and support, lack of opportunities for learning, poor practice- theory integration, poor interpersonal relationships between students, college tutors and ward staff.

Moeti, van Niekerk and Van Velden (2004) cited also shortage of staff and high bed occupancy

as the reason professional nurses are unable to guide and supervise students. The situation becomes more frustrating when the equipment, which is supposed to be used for patients care, is not available. Clinical areas are overcrowded and this makes learning and teaching ineffective. If too many student nurses are allocated to one clinical area at the same time, effective learning and integration of theory and practice will be hampered, because teaching, coaching and supervision will be compromised. Quinn (2000) states clearly that the clinical learning environment should provide teaching and learning opportunities, space, equipment and health and safety requirements for appropriate placement of student nurses. It therefore stands to reason that when student nurses are allocated to the same clinical area in large numbers, it affects teaching and learning negatively as the staff won't be able to give the students nurses the necessary support.

According to Quinn (2000), the management style of managers should be efficient and flexible. There should be time set aside for teaching student nurses and proper organization of staff should be taken care of so that student nurses can be guided and supervised during clinical practice.

Lambert and Glacken (2004), postulate that the clinical environment was found not conducive and fruitful to the clinical learning of student nurses. Student nurses did not enjoy the guidance of qualified educators and experienced an unsupportive and non-scientific relationship with staff. Many registered nurses are newly qualified, hence lack the clinical teaching skills. Such nurses are unable to role model excellence because they themselves are consolidating their own clinical practice.

A study by Cheraghi et al (2008) indicated that, during clinical rotations, nursing students frequently feel vulnerable in the clinical environment. It follows that the nursing education

system does not always function well and nursing students are not satisfied with the clinical component of their education. The environment is non-conducive for learning. The academic educators are regarded as outsiders and this widens the gap between staff and academic educators.

Placement can be inspiring or demoralizing. This is where students learn the hands-on skills of the profession. Mentors are key to the success of these placements, but unfortunately for many students, the quality of mentorship is highly varied. Students have inadequate access to mentors because of staff shortages. When present, they feel too busy to support students. As these students are left to learn by themselves, their focus will be on the tasks they know well. They are used as work force and therefore fail to collate the theory they learn in the classroom with practice. Poor mentorship demotivates students and this can indirectly lead to a poor pass rate. If there was good mentorship, weak students would be identified early and remediation could be embarked upon (Taylor, 2008).

The number of student nurses allocated to a clinical area should be controlled, thus avoiding overcrowding, as this makes learning and teaching ineffective. If many student nurses are at the clinical area at the same time, it hampers effective integration of theory and practice as teaching, coaching and supervision will be compromised. It can therefore be deduced that when student nurses are allocated to the same clinical area in large numbers, it affects teaching and learning negatively as they won't get the necessary support they need from the professional nurses. It is therefore imperative that the number of student nurses at any given time should be controlled. This is only possible if placement control is done centrally (Cheraghi et al., 2008).

In acute clinical areas, students are seen as extra pairs of hands and the supernumerary status is violated. The nurses act as gatekeepers and deny the students access to learning opportunities. They may be sent to complete simple tasks whereas the nurse attends to complex activities, again denying the student nurse. This strategy is used to manage busy workload and is often not intentional (McGowan, 2006).

The employee-student status of the majority of nursing students in South Africa often creates a dual loyalty situation. The student has learning objectives to meet and at the same time they are also workers or employees with their employers' expectations to fulfil service delivery usually takes precedence and the student's work suffers. The students do not enjoy supernumerary status; the placement is haphazard as the ward sisters re-assign them to where the need is. This results in students not meeting the SANC practical hour's requirement (Armstrong, Geyer, Mngomezulu, Potgieter & Subedar, 2008). There is poor continuity and learning opportunities are not created for learners. They are left on their own with little or no supervision (Gerrard & Roberts, 2006).

Shortage of staff and equipment exacerbates difficulty in learning as the staff become depressed and frustrated, leaving them with little energy and time to attend effectively to the needs of the learners. It appears that there are a variety of factors including shortage of staff which has a negative influence on student nurses in the clinical area (Clarkson & Hodgkinson, 2007).

2.2.4 Physical learning climate (classroom)

The learning climate is the social, emotional and intellectual atmosphere existing within the school. It influences the quality of life of students, faculty and staff. In the learning climate the staff should ensure that the following exist:

- learning opportunities
- settings in which learning occurs
- flexibility within the curriculum
- relationship between the students and the educators perceived freedom to take calculated intellectual risks and the availability of support when undertaking new challenges (Iwasiw, Goldenburg & Andrusyszn, 2006).

A positive climate in the classroom is important as it promotes learning. This can be ensured through proper ventilation to prevent learners from falling asleep. There must be adequate lighting and that classrooms should be free from noise. Other aspects that must be taken into account are: physical distance between the learners and educators so as to encourage free movement. Comfortable seating arrangement should be emphasized. Classrooms lack some of the above features. They are overcrowded due to large numbers of students as the legacy qualification will be phased out in 2013 (current nursing programmes that are offered by SANC at present that are due to change in the near future), (SANC, 2005). Due to stringent financial measures, the schools have limited budgets and this makes it difficult to ensure that there are adequate resources. According to Maslow's hierarchy of needs, the basic needs are to be fulfilled first before proceeding to the higher-order needs e.g. learning (Klopper, 2001). Neuman also viewed an individual as a total being and failure to meet one of the needs will result in a learner becoming dysfunctional (Neuman & Fawcett, 2002).

The mental environment cannot be isolated from the physical. Mental environment is what the mind thinks and has a negative impact on the learners' concentration. The academic performance of students is substantially lower in the presence of an emotional difficulty. The psychological learning climate can make a difference to how learners perform academically and how they

adjust socially within a nursing school environment. A positive emotional climate hastens the process of moving from dependence to independence (Lekhuleni, 2002).

A learning environment that is free from barriers, or obstacles or distractions such as noise, increases or affects the student's concentration or perceptual focus to learning. Conducive learning environment stimulates learning, understanding and high perception. Danesty (2004) claims that socio-economic factors impact on academic achievements e.g. good seating arrangement and good building contribute to high academic achievement. Lack of mental stimulation and facilities with low or no seating arrangement will, on the other hand, be counter-productive to academic excellence. Thus, teaching and learning should take place in an organized, planned and fortified learning environment with learning instructional aides to stimulate the student's sense of perception and concentration. An environment conducive to learning will prompt academic performance and lack of it will retard academic performance.

Rigid and overcrowded curriculum put more demands on the students. Libraries should be opened for longer periods, unlike the nursing schools where they are open until 16h00 due to a shortage or the absence of librarians (Rangeley & Arthurs, 2004).

When students don't understand, they are expected to ask questions. When a student asks a question the educator will take advantage of the "teachable moment" and address the question until satisfied that the student understands. This process generates a culture of inquiry in the classroom: students are asked to think independently, define their own questions, and answer in complete sentences and complete thoughts. Engaged students are successful students. They earn better grades, have lower rates of attrition and help their peers to learn. According to

Handelsman, Briggs, Sullivan and Tower (2005) students have been found to earn higher grades as their participation increases.

Study skills in the first year would support the learners to become academically prepared. These skills need to be integrated into the main stream courses, as students are sometimes not willing to undergo study skills training courses because of the stigma attached to counselling. The educators are not always knowledgeable enough to address the issue during academic instruction (Sayer, Saintoge, Evans & Wood, 2002). Lack of reading and writing pose a potential negative effect on academic performance or success (Hardman & Ng'ambi, 2003). The trouble is that, while academic staff may consider English to be a major cause of academic difficulties, students often feel that they experience few problems with the English language (Dunstan & Frescura, 2001). This indicates that many student nurses have a low awareness of their specific barriers to learning.

The literature reviewed for this study suggested that the availability of technology in the form of computers at nursing schools is vital to such students' academic success. If students are to reach their potential, they should have daily exposure to technology. As technology develops, the corresponding opportunity for students to use new technologies must also be developed. Technology should be used to facilitate teaching (Domenech, 2006).

2.2.5 Socio demographics of student nurses

The universities, colleges and schools of nursing have strict criteria for admission. Nursing staff shortages have forced the government and the public sector to put pressure on universities, colleges and schools of nursing to increase enrolment of student nurses to address the problem.

This has resulted in the large classes mentioned before and the subsequent difficulty faced by educators having to deal with them. A trainability test (which is a means of estimating the suitability of a candidate for a course of training) has been side-stepped, as the Employment Equity Act, Act No. 55 of 1998, declares that learners from disadvantaged communities should receive first preference when applications for admission to institutions of higher learning are being considered. These South African socio-political realities and South Africa's legislative responses to them result in a situation that is neither beneficial to the student, the learning institution nor the public.

Applying the principle of equity implies a critical identification of existing inequalities and the programme of transformation with a view to redressing the inequalities of the past (Sayer, Saintoge, Evans & Wood, 2002). Because of their complicated life stage, older students are more likely to have social commitments and children dependent on them. Such students have multiple roles, operating as employees, parents and carers (Kevern & Webb, 2004). Simultaneously raising children and trying to establish a career is difficult (Kevern & Webb, 2004).

Social integration is the extent to which students feel that they "fit in", particularly in a social sense. Harvey and Drew (2006) define social integration as "those experiences that help to connect students to the college environment". Research in the US has discussed the importance of peer relations, providing both academic and social support (Tinto, 2000). Yorke and Longden (2008) identify how the academic experience can be socially isolating as occurring in long lectures. Severiens and Wolff (2008) found that students who feel at home, well connected to fellow-students and teachers are more likely to graduate. Also Wilcox, Winn and Fyvie-Gauld (2005) found that social support by family and friends has a positive influence on the study success of students.

In a study completed by Salamonson and Andrew (2006), it was found that mature-aged students achieved better grades than younger students.

Mature age students are thought to have a greater desire to achieve, possibly feeling that they have more to lose if they are not successful. Ansari (2002) echoed the fact that students between 26 to 50 years obtained high grades in their examinations. This can be due to the fact that they have more life experience and a sense of maturity.

The study suggests that mature nursing students do well regardless of qualifications, while non-mature students with better qualifications perform poorly with resultant high attrition rates. Good entry qualifications are not necessarily good indicators of performance (Goddard, Mannion & Smith, 2004).

In a study by Last & Fullbrook (2003), it was found that lack of confidence can contribute to poor pass rate. The external pressures of juggling life circumstances, study placements, financial issues and tiredness were found to be contributing factors. Mature students are juggling with multiple roles i.e. they are employees and students at the same time.

Increased levels of personal engagement with college activity, including developing social support networks improve student success. More than a third of nursing students suffer from social isolation because they are far from other students while on placement in the hospital and the relationship runs on thin end. Many student nurses are mature and have family commitments which may conflict with the demands of the nursing programmes (Kuh, Cruce, Shoup, Kinzie and Gonyea, 2008).

Poor tutor-student relationships and poor ward teaching and supervision were shown as major causes or reasons for drop out. Remedial programmes which were implemented to counter this phenomenon had limited success due to financial, attitudinal, human resource provision and development constraints (Harvey & Drew, 2006). The impact of developing strong supportive relationships with peers and facilitators enable difficulties to be addressed in a timely manner so that a state of balance is maintained at all times (Smith & Beggs, 2003).

Academic stress among student nurses is common due to the transitional nature of college life. Student nurses may move away from their homes for the first time, this necessitates leaving all previously learned support systems such as parents, siblings and partners. Student nurse may need to develop entirely new social contacts and they can meet rejection. They may have difficulty adjusting to more rigorous academic expectations and this becomes too overwhelming resulting to poor academic success. Student nurses experience high stress at predictable times each semester due to academic commitments, financial pressures and lack of time management skills. The time to adjust may be long and the workload may accumulate resulting to the students not coping (Nicholl & Trimonius, 2005).

Social adjustment, particularly adjusting to college life and being separated from family and friends, increases stress levels. Additionally, nursing students experience a clinical component, which is highly stressful. In the clinical area they perform procedures that are potentially harmful for their patients, and their fear of making mistakes increases their anxiety levels. They are therefore reluctant to do their practical work, which results in a disjuncture between practice and theory. For some student nurses, some stress is motivating, whereas too high a level interferes

with learning and can cause poor academic performance. Students suffering from excessive stress could drop out of the college (Evans & Kelly, 2004).

Socio-demographics of students include age, level of education, previous life experience, socio-economic status and area of residence, amongst others. Some of the students coming to do the course are unprepared for time and financial commitments that undertaking further study will require of them (Gerrard & Roberts, 2006). The mature age students, due to their life stage are more likely to have dependent children and other social commitment. They have multiple roles of being employees, parents and carers and these rob them of their quality time to study with the result that they are not succeeding in their studies. Family responsibilities can and do impact on the academic success (Bolam & Dodgson, 2003).

2.2.6 Finance

Funding for enrolled nurses (R2175) is through Health and Welfare Sector Education and Training Authority (HWSETA). The South African Skills Development Act No 97 of 1998 was devised to develop and improve the skill level of the South African workforce by providing financial assistance (South Africa 1998), but for some reason the learners are not getting financial support from the skills fund. The R2175 students are not eligible for grants and scholarships being government workers (Rosenberg, Peraud & Williams 2007).

Most considered loans to be the only available avenue for financing their education (Rivera-Goba and Nieto, 2007). Few students could get learnerships and the money they got could only afford them to buy books. The idea of getting a loan is far-fetched as the National Credit Act No 34 of 2005 addresses and prevents indebtedness of consumers in consideration of their credit

status. The students resort to moonlighting to acquire extra cash hence they are tired and unproductive during teaching-learning encounter (Goetz, 2007). The more time students worked the more likely they reported that employment limited class schedules and reduced choices of classes (Heller, 2002). This has added to their financial stress levels and distracting them from their studies (Mc Gann & Thompson, 2008). The success of nursing students is related to their personal and financial circumstances. Working either fulltime or part time is quite challenging and can contribute to attrition. Whilst in class working overtime becomes impossible due to time constraints (Salamonson & Andrew, 2006).

Many may have dependent children and might be experiencing major financial crises (Cornell, 2003; Bryne, 2005). When they enter training they have to balance between academic, economic and domestic responsibilities (Reay, Ball & David, 2002). They are confronted by a myriad of extremely stressful, complex changes in the area of finances, family relationships and family function (Gerrard & Roberts, 2006). These students struggle to service their financial obligations with the resultant stress interfering with their concentration in class and causing them not to succeed academically (Cuthbertson, Lauder, Steele, Cleary & Bradshaw, 2004).

The socio-economic background of learners and the culture of extended family of Black people fail to afford them to buy basic amenities e.g. food hence they come to school with empty stomachs and fall asleep within an hour or two. Hildenbrandt (2010) in his study discovered that hunger and nutritional deficiency have a negative effect on students' academic performance. Home studying during night is not done for the lack of proper lighting. Baloyi (2002) believes that learners' socio-economic status is in many respects, a major impediment to success.

There are concerns that students' financial position has an effect on academic performance of students. These concerns are substantiated by research conducted by Cude, Lawrence, Lyons, Metzger LeJeune and Marks (2006) stating that financial literacy on the part of the student is crucial as it affects financial decisions that the student embarks on at the college.

In a study by Goldrick-Rab, Harris and Trotse (2009), lack of financial aid was regarded as the factor that affects momentum towards passing. Students also face significant challenges in figuring out how to pay the college fees. Receiving financial aid appears to decrease the probability of withdrawal from the college (Bettinger, 2004).

Mafalo (2003) indicated that shortage of staff and equipment could have a serious impact on the health care system and that professional integrity could be jeopardized. There is a shortage of mentors. This could have a serious impact on the quality of experiences and learning of student nurses in the clinical learning environment. Hanson (2006) identified a lack of financial support as a factor that impedes student nurses' academic success.

A study conducted in Nigeria (2004 -2007) revealed that high levels of illiteracy and low socio-economic status deprived student nurses of academic abilities resulting in poor academic performance (Shittu, 2004). These ugly situations force young school students to drop out of school and engage in subsistence farming and many students take schooling as a secondary assignment. Home background, according to the Programme International Student Assessment of 2000, influences the academic and educational success of the student, while socio-economic status reinforces the activities and functioning of teachers and students.

2.3 Summary

The literature pertinent to the topic was identified. Language is amongst them as it is seen as playing a pivotal role in communication. Without literacy skills it would be difficult to understand and be understood. Student nurses need to be proficient in at least two languages in South Africa, of which English has to be one. English is foreign to most of the majority of South Africans.

Lack of educators, mentors and facilitators have a profound bearing on the success of student nurses. Education institutions are short-staffed, while educators are under-qualified and under-skilled. Due to the shortage of educators, the student-educator ratio is increasing resulting in students being neglected. Mentors and facilitators in the clinical areas are few hence supervision and mentoring is suffering; students are often left on their own.

Socio-economic status and funding are regarded as barriers to success. When student nurses are in financial distress their minds become crowded and concentration wanes. Financial support would help student nurses to refrain from moonlighting. They do not have time to study as they are exhausted.

2.4 Theoretical Framework

2.4.1 Introduction

A combination of systems theory by Neuman and Fawcett (2002) and Kolb's (1984) experiential learning theory was used. The reason for using these theories is that both conceive of the learner in a holistic manner. Neuman believes that wellness is to be obtained in order for a person to work harmoniously. On the other hand, Kolb maintains that the learner has to move on all stages during the learning process and that no one stage is better than the other. Each student has a pre-

ferred learning style, the educator has to try and reinforce or adapt whatever learning style is used (Kolb, 1984). These theories are interlocking, and fitting as the researcher is studying the learning styles and their impact on learning while the systems theory allows for the investigation of factors within and outside the students that can interfere with the learning process.

2.4.2 Systems theory

Neuman's systems theory looks at the learner as a physiological, sociocultural, emotional and developmental being. This means that for a learner to function optimally, a balance/ homeostasis must be maintained amongst all the stated variables. An imbalance in one of these variables results in the system/ learner being dysfunctional and ultimately not succeeding in the examinations (Neuman & Fawcett, 2002).

The students in this theory – termed as inputs – are admitted to this nursing school from different socio economic backgrounds, different language backgrounds and different socio-economic demographics. The outputs within the individual and external environment can impact on students' academic performance. These inputs are: literacy, lack of educators, clinical placement, physical environment (classroom), socio demographics of the students and finance. A change in any of the above outputs within the students or outside the school environment might have an impact on the academic performance of students, thus the balance between outputs and inputs should be maintained at all cost. The selection of the theory is based on the belief that the quality of input invariably affects the quality of output, in this case academic performance (Acato, 2006).

2.4.2.1 Premise for systems theory

The premise is to achieve optimal system stability by maintaining a balance between the variables or outputs. The balance between all variables will ensure that the students are in a state of homeostasis and thus learning might occur and performance improves. These variables are physiological, socio-cultural, emotional and developmental. All learning takes place in a physical environment with quantifiable and perceptible physical characteristics.

2.4.2.2 Suitability of Neuman's system theory

The physical characteristics of learning environments can affect learners emotionally, with important cognitive and behavioural consequences. Although emotional reactions to environmental stimuli have been shown to vary widely across individuals and activities, most students would probably find learning difficult in a classroom that is stiflingly warm (Fasokum, Katahoire & Obnaran, 2005).

Conversely, environments that elicit positive emotional responses may lead not only to enhanced learning but also to a powerful, emotional attachment to that space. In any learning environment, physical characteristics that cause discomfort can be expected to interfere with learning, while environments that produce positive emotional states can be expected to facilitate learning.

Students are social beings who need to feel a sense of belonging and acceptance. Poor relationship between the students and between students and educators can have a damaging effect on student academic performance (Murray & Malmgren, 2005).

The learner has to interact with the environment, either accommodating it or adjusting it to him or herself. Accommodation is the process by which the person makes adjustments in his or her behaviour to adapt to the environmental changes. For example, if the classroom is cold, windows are closed and heaters are switched on.

2.4.3 Kolb's experiential learning theory

Kolb's experiential learning theory provides a holistic model of the learning process. It emphasizes the central role that experience plays in the learning process (Kolb, 1984). In this theory, knowledge is created through the transformation of experience. Kolb's theory is concerned about the learning styles and states that no learning style is better than the other and that the learner moves from one learning style to the next. The theory is therefore termed as cyclic (Kolb, 1984).

Kolb (1984) defined learning as a process whereby knowledge is created through the transformation of experience. This definition emphasizes several critical aspects of the learning process as viewed from the experiential perspective. The emphasis is on the process of learning as opposed to content or outcomes. Knowledge is a transformation process that is being continuously created and recreated and that experience is the core of learning.

The concept of experiential learning explores the cyclical pattern of all learning from experience through reflection and conceptualization to active and on to further experience. Experiential learning occurs as a direct result of the learners' participation in events. It is a learner-centred approach which starts with the premise that people learn best from experience (learning-by-doing). It is effective due to its holistic approach of addressing cognitive, emotional and physical

aspects of the learner. It recognizes that people learn best from their own experiences and their own views, and subscribes to the notion that what people do is more important than what they know (Kolb & Kolb, 1984).

The experiential learning theory model outlines two related approaches toward grasping experience: concrete experience and abstract conceptualization. It also outlines two related approaches toward transforming experience: reflective observation and active participation. There are four learning styles in this model which are:

The **Converger** (Reflective Observation) students are characterized by abstract conceptualization and active participation. This group is good at making practical applications of ideas and using hypothetical-deductive reasoning to solve problems (Kolb, Boyatzis & Mainemelis, 2001).

The D**ivergent** (Concrete Experience) students learns best at viewing concrete situations from many different points of view, prefer to work in groups and relies heavily upon brainstorming and generation of ideas (Kolb et al., 1979). This type prefers to work in a group where there is shared discovery. The instructor becomes a facilitator of knowledge. This style allows the students to be recognized as individuals with different strengths (Hativa & Birrenbaum, 2000).

The **Assimilating** (Abstract Conceptualisation) student is more interested in ideas and abstract concepts and prefers reading, lectures and exploring analytic models (Kolb & Fry, 1975).

The **Accommodating** (Active Experimentation) learners have the ability to learn primarily from hands- on experience and act on gut feelings rather than on logical analysis (Kolb & Fry, 1975).

2.4.3.1 Premise for Kolb's experiential learning theory

There are propositions to Kolb's experiential learning theory, namely:

Learning is best conceived as a process, not in terms of outcome. The primary focus of learning

should be to engage students in a process to enhance their learning. They should receive feedback on their progress from time to time on the effectiveness of the learning process or efforts (Kolb, 1984).

Learning requires the resolution of conflicts between dialectically opposed modes of adaptation to the environment. This means that the experiential learning theory has two opposing ways of dealing with the world, e.g. concrete experience and abstract conceptualization on one side and reflective observation and active experimentation on the other side. The learning process is driven by conflicts, differences and disagreements as has the learners moving back and forth between opposing modes of reflection and action and feeling and thinking to come to a joint decision (Kolb, 1984).

Learning is a holistic process of adaptation to the world. Learning involves the integrated functioning of the total person i.e. thinking, feeling, perceiving and behaving. The educator has to adapt her/his teaching strategies as learners are different. She must also do need analysis of the students so as to try and meet the needs as failure to do so can retard the progress of the students (Kolb, 1984).

Learning involves transactions between the person and the environment. The person in this case is the student and the educator. This means that there should be a good learner-educator relationship for the teaching and learning process to be effective. The environment is where the transaction is taking place and in this instance is the classroom. The educator has an important responsibility to see that there are no impediments such as noise, poor lighting, and overcrowding in the classroom that can jeopardize learning (Kolb, 1984).

Learning is the process of creating knowledge. Social knowledge is created through the transformation of experience. Knowledge results from the combination of grasping and transforming experience (Kolb, 1984). Experiential learning theory proposes a constructivist theory of learning whereby social knowledge is created and recreated in the personal knowledge of the learner (Kolb, 1984).

All learning is relearning. As an individual passes from one situation to another, his/her world, or environment expands or contracts. What he/she has in the way of knowledge and skills in one situation can be used effectively with the next situation. Learning is a continuous process grounded in experience. The learner's mind is not a blank slate; there are more or less articulate ideas about the topic. The duty of the educator is not only to implant new ideas but also to dispose of or modify old ones (Kolb, 1984).

2.4.3.2 Suitability of Kolb's experiential learning theory

People learn in different ways. No one learning style is the best. The theory asserts that without reflection we would simply continue to repeat the same mistakes. Individuals begin with their preferred style in the experiential learning cycle (Honey & Mumford, 1986). Teachers should take full account of the range of learning styles that any class or group of students will exhibit. They should recognise that their learning styles are likely to shape their teaching and the approach they adopt to course design. The teachers should avoid the dangers of allowing one particular approach to teaching to exclude others (Healey & Jenkings, 2000). It is interesting to think about one's own particular style of learning and to recognise that everyone does not learn the way one does. Honey and Mumford, 1986 cited in (McGill & Beaty, 1995), argue that learn-

ing is enhanced when we think about our learning style so that we can build on strengths and work towards minimizing weaknesses to improve quality of learning.

The researcher acknowledges that students' learning styles might be a contributing factor to success or failure to qualify for entry in SANC examinations. Different students have different learning styles. The researcher is of the opinion that learning is a process and the students should receive feedback on their progress. The researcher further postulates that there are different learning styles and knowing these styles can help the educator to be able to use these styles interchangeably as no one style is perfect. It is therefore imperative that the educators understand the abilities and limitations of their students and try to adapt teaching and learning strategies. According to Kolb's model, the ideal learning process engages all four of these modes namely: concrete experience, active participation, reflective observation and abstract conceptualisation (Kolb & Kolb, 2005) in response to situational demands. In order for the learning to be effective, diverging, converging assimilating, and accommodating approaches must be incorporated (Kolb, 1984).

According to Kolb (1984) human beings are unique creatures in the sense that they identify with the process of adaptation in the process of their learning. The human beings are thus the learning species and their survival depends on their ability to adapt and shape their worlds. People learn from their experiences and the learning can be reliably assessed. Experiential learning has become the method of choice for learning and personal development. Experience- based education has been accepted widely as a method of instruction at colleges and universities. Teaching strategies should respect student diversity and the teaching strategies should assist students in their progress toward course and curriculum goals (Iwasiw, Goldenberg & Andrusyszn, 2005).

Kolb's (1984) experiential learning theory emphasizes holistic analysis. Holists prefer to keep a global view of the topic. Holism is an exploratory approach where information is first understood as a "big picture" or overview and then broken down into smaller chunks. The learners are participants in knowledge creation, and not mere receptors of inert knowledge. Kolb's theory is found to be successfully implemented in adult learning contexts where experiential learning is an appropriate pedagogy (Mulligan & Griffin, 1992).

Kolb's model is known as the cycle of learning which consists of four models of learning reflecting two major dimensions of perception and processing. The perception dimension involves two opposite perceptual viewpoints. Some learners perceive through concrete experience and others through abstract conceptualization. Concrete experience mode relies more on logic. The process dimension consists of two opposite namely: active experimentation and reflective observation. In active experimentation, learning is active whereas in reflective observation learners rely on objectivity, judgment and feelings (Kolb, 1984). The use of different learning styles enables the nurse educator to assist the learners in developing their ways of thinking. The nurse educator has to accept the diversity of style among learners thus creating a versatile atmosphere that encourages all learners.

Kolb postulated that learning involves a cycle of four processes namely:

- The learner's personal involvement in a specific experience.
- The learner reflects on this experience from many viewpoints seeking to find meaning.
- Out of reflection she/he draws logical conclusions (abstract conceptualization).
- These conclusions guide decisions and actions (active experimentation) that lead to the new concrete experience.

- In concrete experience students must be able to involve themselves fully, openly and without bias in new experience. In reflective observation students must be able to reflect on and observe their experiences from many perspectives. In abstract conceptualization learners must be able to create concepts that integrate their observations into logically sound theories. Lastly, in active experimentation learners must be able to make decisions and solve problems. The student moves in varying degrees from actor to observer and from specific involvement to general analytic detachment. Learning involves transactions between the person and the environment (Kolb, 1984).

Teaching solely in a manner not well suited to a student's learning style may cause discomfort and interferes with learning. However, teaching only students' preferred learning style may result in students lacking the mental power to adapt well to different learning environments. In the end this could interfere with their ability to reach their academic or professional potential. So, one goal might be to have students exercise various learning styles so that they have the mental agility to learn in different environments, while not emphasizing one style so much as to interfere with the learning process (Kolb, 1984).

2.5 Conclusion

The Neuman's system theory and Kolb's experiential learning theory were used in this study.

The reason behind using these two models is because the student is a total holistic being namely physical, psychological, socio-cultural and developmental being hence the systems theory was used. It is therefore clear that if one part of the system is affected the impact will be felt on the other systems. Kolb's experiential learning theory concentrated on the learning styles and it also applied the principle of totality by recognising that the students are different and are therefore

different in the way they learn. Being able to identify the factors that promote or inhibit the students' success to gain entry into SANC examination will help to improve the R2175 programme, the throughput or pass rate of the students and lastly the students' general experience of the R2175 programme.

In the next chapter the research methodology on factors promoting or inhibiting R2175 student nurse succeeding to qualify for entrance to SANC examination will be discussed.

CHAPTER 3

RESEARCH METHODOLOGY

3.1. Introduction

This chapter describes the research approach, design, setting, population, sampling, data collection instrument and process, pre-testing and data analysis. The aim of the research was to investigate the factors that promote or inhibit student nurses' success at qualifying for entrance to the SANC R2175 examination.

3.2. Research Approach

Like all systems, research also follows certain rules and organized procedures in order to obtain the intended result. In this case, a multi-method research approach was used. The multi -method research approach entails the application of two or more research methods to the investigation of a research question. Multi-method approaches refer to the use of multiple methods – typically quantitative and qualitative – in conducting research (Creswell, 2003). In the multi-method approach each study is planned and conducted to answer a particular sub-question and the results of the research are triangulated to form a comprehensive whole (Morse, 2003).

The researcher used the multi-method approach in order to maximize the strengths of each method and likewise to minimise the impact of the weaknesses of each method (Creswell, 2003). Secondly, according to Morse (2003) social phenomena are complex. Different kinds of methods are therefore needed to understand those complexities. The use of a multi-method approach provides a better understanding of the research problems than would either approach alone. Qualita-

tive research, unlike quantitative research, does not use quantity measurement, but instead attempts to measure the quality of something. Multi- method approach is more than simply collecting and analysing both kinds of data; it also involves the use of both approaches in tandem so that the overall strength of a study is greater than either qualitative or quantitative research (Mingers, 2003).

There are advantages to using multi-method approaches in research. Multi-method approaches help to obtain full answers and increase the robustness of our understanding (Mingers, 2003). Using multiple methods has the potential to gain knowledge about different aspects of the phenomenon under study.

Validating interpretations of what is happening in a particular environment is considered as the key advantage of multi-method studies (Hammond, 2005; Sammons, Siraj-Blatchford, Sylvia, Melhuis, Taggart & Elliot, 2005). Triangulation of results can be useful not only at the single study level but also at the meta-analysis or review level (Harden & Thomas, 2005). Researchers can also enrich their understanding of specific situations by employing the analytical power of quantitative and qualitative research methods (Plewis & Mason, 2005; Sammons et al., 2005).

There are challenges to the implementation of multi-method approaches in conducting research. Conducting research is an endeavour that demands great amounts of time and resources. Using multiple methods requires more resources and prioritization of methods and research questions (Blatchford, 2005). Resources are needed in the arena of training and in designing a particular research protocol.

The availability of multi -method research approach knowledge is needed to enable the

researchers to engage with the particular integration of methods used (Mingers, 1997). In some situations combining both methods present challenges derived from the perceived differences between these two types of methods. Other researchers consider that qualitative and quantitative approaches are compatible and complement each other (Brannen, 2005).

For this study the quantitative and qualitative data will be collected and analysed separately and triangulation will be applied. Triangulation is the application and combination of several research methodologies in the study of the same phenomenon. By combining multiple methods researchers hope to overcome the weakness or intrinsic biases and the problems which may arise from the use of a single method (Spicer, 2004).

3.2.1. Quantitative Approach

Burns and Grove (2005) view quantitative research as a formal, objective and systematic process during which the researcher uses numerical data to answer the research question. This approach reduces the data to numbers. It produces quantifiable, reliable data that are usually generalizable to some larger population after extensive statistical analysis (Spicer, 2004). The quantitative approach was adopted to answer objective one of the study which was to *identify the factors that promote or inhibit learning amongst student nurses*.

There are limitations to quantitative research. The greatest weakness of the quantitative approach is that it decontextualizes human behaviour in a way that removes the event from its real-world setting. It lacks the depth and richness of data that is present with qualitative research (Anderson & Taylor, 2009).

3.2.2. Qualitative Approach

Qualitative research is a systematic and subjective approach to describing, understanding and providing meaning to life experiences. Qualitative research is a broad term used to describe research that is focused primarily on human experience through exploring attitudes, beliefs, values and experiences (Whitehead, 2007). Burns and Grove (2005) are of a similar opinion and suggest that the main aim of qualitative research is to explore people's experiences and reflect these through words and concepts and give meaning to the phenomenon being studied. It is more in-depth and holistic than quantitative, generating rich material on which to base the findings of a piece of research (Polit & Beck, 2010). The qualitative approach is used when very little is known about the research topic. Qualitative research methods are not as dependent upon sample sizes as quantitative methods but can generate meaningful results with a small sample group by presenting the richness obtained in the data. The qualitative approach was used to answer objective 2 of the research study which was to: *determine the perceptions of educators with regard to factors related to student nurses' success.*

Whilst not as time or resource consuming as the quantitative approach, qualitative methods require careful thought and planning to ensure that the results are as accurate as possible. Qualitative research is seen as deficient because it allows for the researcher's personal interpretations and possible biases. It is also difficult to replicate qualitative research and generalize the findings to a large group (Creswell, 2009) and (Anderson & Taylor, 2009).

3.3. Research Design

A research design is an exposition or plan of how the researcher decides to execute the formulated research (Burns & Grove, 2009). It is a set of guidelines for a systematized inquiry that uses orderly and scientific methods to provide the most valid, accurate answer to questions or to solve problems (Burns & Grove, 2007). An exploratory, descriptive design was used for the study.

3.3.1. Explorative Design

According to Welman, Kruger, & Mitchell (2005), exploratory research is most useful in obtaining a broad but accurate understanding of a particular situation or phenomenon. Welman et al., (2005) assert that an explorative qualitative research design usually makes use of unstructured interviews to formulate questions that will shed light on the most important variables that have been predetermined by the researcher.

The need for this study arose out of a lack of accurate information about a particular area of interest where the pupil nurses were failing to gain entry to the SANC Regulation 2175 examination. It was therefore imperative for the researcher to use the focus group of educators to determine their perceptions with regard to factors related to students' success.

3.3.2. Descriptive Design

Burns and Grove (2003) point out that a descriptive design enables a researcher to obtain knowledge and clarity about the phenomenon of interest within a particular field of study. A descriptive design is therefore used to develop theories, identify problems with the current modalities and justify current practices. Brink et al., (2006) assert that a descriptive design provides descriptions of variables in terms of which the research questions can best be answered. When in

combination with an explorative approach, a descriptive research method is an extremely valuable tool for increasing one's understanding of the questions raised by the people, situation or events that the researcher is striving to comprehend (Welman et al., 2005). Descriptive studies can involve a one-time interaction with groups of people (cross sectional study) or a study might follow individuals over time (longitudinal study). In this research a cross-sectional study was used.

3.4. Quantitative Phase

3.4.1. Study Setting

The study was conducted at a hospital-based nursing school in the Western Cape, where pupil nurses are educated and trained.

3.4.2. Study Population

Burns and Grove (2009) describe the population as all the elements that meet the sample criteria for inclusion into the study. A population represents a group that the researcher wishes to generalize the research findings to and is often defined in terms of demography, geography and occupation (Simon, 2003).

The population for the quantitative phase included all students who were registered in the R2175 programme at the school of nursing identified for the study.

3.4.3. Sampling and Sample Size

Sampling involves a process of selecting a sub-section of a population that represents the entire population in order to obtain information regarding the phenomenon of interest (Polit & Beck, 2008). This is done through either non-probability or probability sampling.

In this study, the accessible subjects who met the eligibility criteria listed below became the study population. The sampling method used in this study was non-probability convenient sampling, as it permitted the researcher to use the most readily available or most convenient group of subjects (Brink, 2006). De Vos, Strydom, Fouché and Delport (2005) suggest that a non-probability sampling strategy means that the researcher deliberately and purposefully selected a particular section of a wider population for the sample. The sample is composed of elements which contain the most characteristics representative of a population. The sample for this study therefore comprised all ninety (90) R2175 students registered in the two cohorts of July and October 2010 at the nursing school in the Western Cape. Since the programme is one year long, these students were available during November 2011 to February 2012 when the study was conducted. Representiveness was ensured because the sample accurately reflects the population under study. Randomization was not applied, which means that each member of the population had an equal chance of being included in the study (Creswell, 2003).

3.4.3.1. Inclusion Criteria

The respondents:

- should have passed R2176
- should be enrolled with the South African Nursing Council as pupil nurses.
- should be employees of the Department of Health at the public hospital where the research took place.
- should have work experience although some would have more experience than the others.

3.4.3.2. Exclusion Criteria

- All students at the study site who do not meet the above criteria.

3.4.4. Data Collection Methods

The study used a non-experimental, quantitative descriptive cross-sectional survey on R2175 pupil nurses. A questionnaire was used. A questionnaire is a list of survey questions asked to respondents, and is designed to extract specific information. It serves four basic purposes, namely: collecting appropriate data; making data comparable and amenable to analysis; minimising bias in formulating and asking questions; and making questions engaging and varied (Gay & Airasian, 2003).

According to Babbie (2007) surveys are excellent vehicles for measuring attitudes and orientations in a large population. According to Polit and Hungler (2007) surveys can be applied to many populations and can focus on a wide range of topics. Pickard (2007) describes the purpose of a descriptive survey as describing a situation and or looking for trends and patterns within the selected sample which can be generalized to the study population.

A descriptive survey is a preferred method of data collection due to its cost-effectiveness and the complete anonymity it offers. Anonymity encourages the respondents to answer frankly. The advantage of a cross-sectional survey is that it can be conducted in a short period and is less expensive than other designs. In addition, external influences are limited and loss of subjects is less likely to occur (Bless et al., 2006). A large group of people can be interviewed simultaneously with the use of a survey. Written or electronic questionnaires reduce bias that may occur in a face-to-face interview. Surveys are less intrusive as people can complete the questionnaire whenever they want as it is not administered by the researcher. Results of the questionnaire can be

easily analysed by a computer (Babbie, 2007; Bless, Higson-Smith & Kagee, 2006). A further advantage of the questionnaire being administered by the researcher herself is that it ensured fewer incomplete responses, greater control over the environment and the opportunity to clarify misunderstood questions and rectify inappropriate responses (Shaughnessey & Zechmeister, 2006). Survey is very popular in education, primarily for these reasons: versatility, efficiency and generalisability (McMillan & Schumacher, 2006). The versatility of the survey comes from the fact that they can be used to investigate almost any problem or question and to collect credible information at a relatively low cost (McMillan & Schumacher, 2006).

Besides the advantages of the use of survey there are also challenges. The major challenge is the possibility of low response rates if questionnaires are posted to respondents. To counteract this, the researcher administered the questionnaire herself.

Another challenge when posting the questionnaire to respondents is the researcher's inability to probe participants' responses. The survey's format allows little flexibility in respondents' responses. By allowing space for comments as this researcher did, this challenge can be partially overcome (Fontana & Frey, 2005).

3.4.4.1. Development of the Tool

A research questionnaire is a research instrument consisting of a series of questions and other prompts for the purpose of gathering information from respondents (Burns & Grove, 2009). According to de Vos et al., (2007), the basic objective of a questionnaire is to obtain facts and opinions about a phenomenon from people who are informed with regards to the particular issue. The questionnaire was compiled as an instrument to collect data on R2175 pupil nurses on factors

inhibiting or promoting students' success at qualifying for entrance to the R2175 SANC examination (See Appendix 5). The compiling of the questionnaire was supported by an in-depth literature review. A statistician and the supervisor guided the researcher in compiling the questionnaire. Closed and open-ended items as well as the Likert scale were used in the designing of the questionnaire. The questionnaire was divided into five sections and contained twenty two items. Section A was centred on the biographical data of the participants; Section B was about their educational background; Section C referred to the participants' financial status; Section D was centred on the participants' access to media resources and Section E investigated the student's learning styles. Section E was adapted from Kolb's Learning Inventory and Vark questionnaire by Mumford. Dichotomous questions, i.e. yes or no answers where allowed were used. The respondent had to choose either yes or no and an additional space was provided for additional information. Section E was centred on support in the clinical areas, resources and motivation. The responses to this section were structured by means of a Likert scale.

Closed-ended questions are very popular in survey research as they provide for greater uniformity in responses which are then more easily processed. Open-ended questions are open to misunderstanding and researcher bias (Babbie, 2007). On the other hand, an advantage of using open-ended questions is that they present respondents with the opportunity to answer as comprehensively as they want to in their own words. Cohen et al., (2007) mentioned that open-ended questions permit participants to write an open version of their feelings and perceptions in their own terms, to elucidate and qualify these responses. To this end, research questions were worded clearly and unambiguously to minimize any bias.

3.4.4.2. Data Collection Process

Quantitative data collection involves the gathering of numeric information (Creswell, 2003). The student survey was conducted during November 2011 and February 2012. After ensuring that all ethical principles were adhered to, the R2175 pupil nurses were called to the venue for the completion of the questionnaire. The aim of the research study was explained to all students at the nursing school and the importance of completing the questionnaires was emphasised. Students were supplied with blank questionnaires to fill in as they were seated in their tables. The researcher administered the questionnaire herself. Anonymity of respondents was ensured as they were not requested to supply their names on the questionnaire, nor were numbers assigned to individual respondents by the researcher. After thirty-five minutes, the respondents were requested to bring their completed questionnaires to the researcher. After the data was collected and collated the completed questionnaires were packed, sealed and stored in a safe place.

3.4.5. Pretesting the questionnaire

The questionnaire was pretested amongst pupil nurses who were not included in the study. This allowed the researcher the opportunity to identify specific sections in the data-gathering instruments that needed to be adapted or clarified by checking its accuracy, reliability and the appropriateness for use in the study (Newman, 2003; Polit & Beck, 2012). The researcher also established that it took the participants in the pre-test approximately thirty-five minutes to respond to the questionnaire.

3.4.6. Quantitative Data Analysis

Quantitative data from the student survey was analysed numerically with the help of a statistician. A total of 90 students participated in the study (n=90). All questionnaire data were entered in the Statistical Package for the Social Sciences (SPSS Version 21) and analysed to produce descriptive statistics.

The data generated through the survey questionnaire were analysed by means of frequency tables and exploratory factor analysis. In factor analysis a large number of variables are analysed to determine or identify the common factors that can be extracted from the data collected. It is an interdependent technique in which all variables are simultaneously considered. This method is often used to analyse Likert-type scales. The two primary uses of factor analysis are summarisation and data reduction. This method was used by the researcher to analyse three variables that were in the Likert scale; - motivation, resources and support. Factor analysis therefore involves an analysis of the inter-correlations between the indicators and construct. The primary uses are therefore to summarise, condense and reduce data from a number of original variables into a smaller set of new variables (Creswell, 2007).

The use of frequency distribution tables assisted that data can be interpreted more easily in an organised and summarised form. A frequency distribution is a table of values and accompanying frequencies (Polit and Beck, 2008). Chi-square was also used to test association between variables. According to Polit and Beck (2008) a Chi- square test is a statistical test that is used to assess differences in proportions and is symbolised as X^2. The chi-square can be used in two ways, as a descriptive statistic, or as an inferential statistic. A descriptive statistic communicates the strength of the association between two variables (Neuman, 2006). A chi-square of 0.05 indicates that there is an association between variables.

3.4.7. Rigor

The principle of validity and reliability were applied. Reliability and validity is a major issue when it comes to quantitative research.

3.4.7.1. Validity

Validity refers to the degree to which the measurement procedure actually measures the concept that is intended to measure (Trochim, 2006). According to Babbie (2004), validity refers to the extent to which an empirical measure accurately reflects the concept it is intended to measure. The researcher has to be objective and this can be done by not allowing any personal bias on the research that is conducted. Content validity was ensured as the research tool was checked by the supervisor if it covers all areas. The questionnaire was analysed for reliability. All the respondents used the same instrument for data collection. The sample consisted of R2175 pupil nurses.

McMillan and Schumacher (2006) stated that validity refers to the degree of congruence between the explanations of the phenomena and the realities of the world. To ensure construct validity the researcher has to operationalize all the constructs under study for similar understanding. Internal validity relates to whether the findings are caused by the phenomena under investigation and not influenced by confounding variables. Factors causing threat to internal validity are maturation of the individual, previous experience, statistical regression, instrumentation, selection bias and experimentation mortality and loss of data (Creswell, 2003). To prevent maturation it is therefore imperative that the researcher did a cross-sectional study as prolonging the project might have

result in the improvement of performance (Mann, 2003). Statistical regression occurs as a result of unreliable measuring instruments and/or the intrusion of extraneous factors unique to each experimental group. Unreliable instruments or tests can introduce serious errors into experiments. The researcher however loses subjects along the way but this can be prevented by using a cross sectional method when collecting data. In order to counteract selection bias, the researcher had strict admission selection criteria of the subjects under study.

External validity is the extent to which the results can be generalized and thus applied to other populations and settings (Winter, 2005; Burns & Grove, 2005). During the selection process the researcher had to make sure that the group represents the population under study and this means that the results or the findings can be generalized. Validity was improved by obtaining the opinion of the supervisor and experts, by performing a pilot study and adjusting the survey tool when necessary, by distributing the same tool to all participants, by keeping questions as simple as possible and to the point to prevent misunderstanding and by allowing sufficient time for completion (Brink et al., 2006).

3.4.7.2. Reliability

Reliability refers to consistency and or repeatability of the measurement, in other words, it refers to a measuring instrument's ability to yield consistent numerical results each time it is applied; the result does not fluctuate unless there are variations in the variable being measured (De Vos et al., 2005). Newman and Krueger (2003) suggest that all constructs should be clearly conceptualised to develop an unambiguous, clear theoretical definition of each construct used. Use of pre-test is done where a questionnaire is developed before applying the final version. A pre-test of about 10% from the pre-study group was therefore conducted to check for flaws in the

questionnaire. The researcher was able to identify any difficulty with the method or materials. The respondents who participated in the pre-test were not used in the final study. The researcher also investigated the accuracy and appropriateness of instruments (Bless et al. 2006). Specialists in the content measured by the instrument were asked to judge the appropriateness of the items on the instrument (does it cover the breath of the content area, does the instrument contain a representative sample of the content being assessed (Denzin & Lincoln, 2005). The statistician and the supervisor were consulted to check the appropriateness and the accuracy of the instrument.

Consistency relates to the questionnaires being clear and well-defined so as not to confuse the respondents and repeatability means that if the researcher has findings from a group he/she should be able to repeat the survey and get exactly the same results under similar conditions (Brink, 2003 and McNeill & Chapman, 2005). In this study reliability was ensured through the following measures:

- Questions were clearly worded in order to be interpreted correctly.
- The interview was conducted by the researcher to clear any confusion.
- The interview was conducted in English to limit any misinterpretation.
- Questions which were not interpreted correctly during the pre-test were reconstructed.

The researcher has to ensure that reliability is maintained throughout when drawing up a questionnaire. To prevent them from influencing one another, pupil nurses were not allowed to carry out discussions amongst themselves.

3.5. Qualitative Phase

3.5.1. Study Setting

The study was conducted at a hospital-based nursing school in the Western Cape, where nurse educators are employed.

3.5.2. Study Population

The population comprises all nurse educators employed at the nursing school where the research took place.

3.5.3. Sampling and Sample Size

The sample comprised of six nurse educators from the nursing school who were sampled through non-probability, purposive sampling. Purposive sampling according to de Vos, Strydom, Fouché and Delport (2005), is based on the judgement of the researcher who purposefully selects participants who are able to serve the purpose of the study. These participants are regarded as the most knowledgeable persons regarding the subject under study.

3.5.3.1. Inclusion Criteria

All participants:

- were professional nurses and had a nursing education qualification as a specialty whether at diploma or degree level.
- should be enrolled with the South African Nursing Council as nurse educators.
- should be employed as permanent educators by the Department of Health at the public hospital where the research took place.

- should have worked at least five years as educators in the physical environment.
- should have English at least as second or third language.
- are South African citizens.

The reason for choosing these participants is that they shared similar characteristics which rendered them to be representative of the population.

3.5.4. Method of Data Collection

Data collection during the qualitative research provides rich descriptions of the respondents' perspective. Its purpose is to understand social phenomena of multiple realities from the respondents' perspective. The facilitator was the primary agent for data collection. The interview took place in a natural setting. Focus group interviewing was used as the method tends to generate qualitative data in the emic sense (i.e. in the participants' own). The optimal size for a focus group should be between four to eight participants (Watson, McKenna, Cowman & Keady, 2008).

A focus group discussion was used in the qualitative phase of data collection. The researcher used the focus group to generate different perspectives from the educators regarding the phenomenon being studied. According to Creswell (2007), focus group is the explicit use of the group interaction to produce data and insights that would be less accessible without discussion within focus groups. A focus group is a carefully planned series of discussion designed to obtain perceptions of a defined area of interest in a permissive and non-threatening environment (Krueger & Casey, 2009). The focus group interview is ideal to obtain in-depth, rich feedback regarding participants' attitudes, opinions and perceptions (Liamputtong, 2011). The collective experience of the group promotes self-disclosure among participants and yields personalised,

rich detailed descriptions (Krueger & Casey, 2009). This idea is supported by Raby (2010) who argues that multiple perspectives evolve during a discussion, uncovering feelings that would otherwise be too uncomfortable for participants to express individually. Focus groups lead to feelings of acceptance and affirmation which are also essential conditions for participants to speak freely.

Krueger and Casey (2009) see a focus group as four to twelve participants gathering together to discuss a specific issue under the guidance of a trained researcher. The size of the group is important as large groups are difficult to control and limit each participant's opportunity to share in the discussion. Too small a group, however, limits the total range of the discussion which larger groups would illicit (Breen, 2006). According to Breen (2006), focus groups should be homogeneous in terms of age, status and occupation for better interaction. Focus group discussions can be used either as a method in their own right or as a complement to other methods, especially for triangulation and validity checking.

There are advantages to using a focus group discussion. It is inexpensive, provides rich data in participants own words where deeper insights are developed, and it allows participants to build on one another's opinions, bringing up ideas that might not have come out in a one-to one interview. Group members discover a common language to describe similar experiences (Bless, Higson-Smith and Kagee 2006).

A focus group interview provides speedy results. It is relatively easy to undertake. Social interaction in the group produces freer and more complex responses. The researcher can probe for clarification and solicit greater detail. Responses have high face validity due to the clarity of

the context and detail of the discussion. The flexibility inherent in the format allows the facilitator to explore unanticipated issues and encourages interaction among participants. In a group setting, participants provide checks and balances, thus minimizing false or extreme views (Mansell et al. 2004).

There are also inherent challenges to using focus group discussions. Such discussions require the facilitation of a highly skilled moderator. The flexible format makes it susceptible to facilitator bias, which can undermine the validity and reliability of findings. A poorly skilled moderator may knowingly or unknowingly bias results by providing cues about what types of responses are desirable. Groups are often difficult to assemble due to participants' individual schedules. Individual responses are not independent of one another. Because the group is hand-selected, the results may not be representative of the general population. Discussions can be side-tracked or dominated by a few vocal individuals, the researcher therefore has to exercise control against domineering focus group members that can skew the session. All participants must have the opportunity to be part of the discussion and to prevent side-tracking of the discussion (Creswell, 2007). Moreover, the information can be difficult to analyse as the comments should be interpreted in the context of the group setting (Mansell et al. 2004). As such, focus groups are limited in terms of the researcher's ability to generalise their findings to a whole population (Krueger, & Casey, 2009).

3.5.4.1. Development of the Tool

The researcher used a focus group interview guide with one broad statement followed by a specific questions or probes (See Appendix 6). The broad statements and specific question read

as follows:

"There is a concern that students are terminated before they are registered to sit for R2175 SANC examinations. What do you think the factors are that inhibit or promote students success at qualifying for entrance to the SANC examination?"

Educators had to respond by answering to the question posed by the facilitator. The broad statement helped initiate the participants in unpacking what was in their minds. Probing questions followed. Probing is the technique used by the interviewer to elicit more useful or detailed information from a respondent than was volunteered in the initial reply (Polit & Hungler, 2007).

3.5.4.2. Data Collection Process

Six nurse educators took part in the focus group discussion which was conducted in February 2012. The focus group was conducted in the committee room of the nursing school under study. The area was quiet with no interruptions.

The participants were seated comfortably around a table in a circle, in such a way that each of them had a full and equal view of all the others, this being an attempt to encourage participation (Burns & Grove, 2005). Refreshments were made available, since eating together tends to promote dialogue and communication within a group as described by de Vos et al, (2008).

Each educator was then given a number to use throughout the interview. This guaranteed that anonymity would be maintained when the proceedings were recorded (Burns & Grove, 2005).The focus group interview was conducted by a facilitator who was not affiliated to the school in February 2012, to prevent bias and to encourage spontaneity of the participants. The researcher explained to the participants that she was conducting interviews for the purpose of

gathering data on the topic about which they had already been informed, and assured the participants that the information that was gathered would be treated confidentially by all the participants – including the facilitator herself (de Vos et al., 2006). Ground rules were set, for example the non-usage of cell phones, allowing one speaker at a time to speak without interruption and the encouragement of the full participation of all members of the group (Welman et. al, 2005).

The facilitator was responsible for making sure that less vocal and less assertive group members had a chance to participate. A tape recorder was used. Consent to use the tape recorder as well as the information gathered through the use of the tape recorder was requested from all the participants. The tape recorder enabled the researcher to concentrate on how the interview was proceeding and where to go next. A tape recorder allows a much fuller record than notes taken during the interview (de Vos et al., 2008). A battery-operated tape recorder was on standby in case of power failures. The interview lasted for an hour, at which point data saturation was reached. Data saturation is used to describe the point when the issues contained in data are repetitive of data collected previously (Somekh & Lewin, 2005). The interviews were subsequently transcribed verbatim.

3.5.5. Qualitative Data Analysis

Qualitative data analysis is the process through which the researcher brings order and meaning to the mass of collected data. De Vos (2005) states that "… qualitative analysis transforms data into findings". Data analysis is conducted to reduce, record, organise and give meaning to data (Polit & Beck, 2010). Data analysis constitutes a primarily inductive process of organising data into categories and identifying patterns or relationships between the categories and themes. The purpose of analysis is to reduce data to an intelligible and interpretable form so as to study the

relations of the research problems, test them and draw conclusions.

Qualitative data analysis requires the researcher to dwell with or become immersed in the data. It is done to preserve the uniqueness of each participants lived experiences while allowing an understanding of the phenomenon under study. Listening to the participants' descriptions is the starting point of this form of analysis, followed by the reading and rereading of the verbatim transcriptions (Henning, 2004).

The transcripts from the focus group were presented unchanged in order to prevent bias. Transcripts were cross-checked by the supervisor for exactness and validity. The supervisor compared the transcripts to voice recorded tapes. A search for categories and themes or recurring regularities was undertaken through a coding process. Themes are a way of describing large quantities of data in a condensed manner (Streubert Speziale, 2006). Coding helps with the reduction of a large volume of data gathered during the research into more manageable portions (de Vos, 2005).

The researcher identified and extracted significant statements. Central themes emerged and connected to one another. This was achieved through the use of thematic analysis. In thematic analysis the researcher translated and transcribed the tape-recorded interviews, then read and reread the interviews in their entirety. The researcher then summarised the interviews into categories. Each category was discussed with relevant quotations from the participants and the relevant literature extracted as a control to the findings of the research (Morse, 2003).

3.5.6. Rigor

Rigor is one of the cornerstones of high-quality academic research. Validity check in qualitative

research is known as credibility. This was accomplished by asking the research participants to evaluate the interpretations and explanations pulled from the data. Qualitative data analysis often follows a general inductive approach in the sense that explicit theories are not imposed on the data rather the data are allowed to "speak for themselves" (Patton, 2005). Member checking was also done whereby the meaning was sent back to the participants to ensure that what was understood is credible (Botes, 2003).This was done with the focus group after the verbatim tape recording had been transcribed. Triangulation was also done where the researcher involved a variety of data as well as methodologies in investigating the same phenomenon. The rationale is that it attempts to overcome the inherent weakness or bias of a single research strategy (Babbie, 2005).

3.5.6.1. Trustworthiness

The researchers need alternative models appropriate to qualitative design to ensure rigor without sacrificing the relevance of qualitative research. According to de Vos (2005) there are various strategies that can be used to establish trustworthiness. These are:

3.5.6.1.1. ***Credibility***

It is a criteria referring to confidence in the truth of the findings of a particular inquiry for the participants (Gasson, 2004). It can be accomplished through prolonged engagement, triangulation, peer support and member checking. Peer support assists student nurses to realize learning opportunities and consequently gain learning experiences (Pollard & Hibbert, 2004). The credibility of this study was enhanced by what Cohen et al., (2007) refer to as member checking. Member checking allows the researcher to go back to participants in order to correct factual errors and offer respondents the opportunity to add further information. The responses to questionnaires and transcripts were given to the subjects and participants to check whether the

answers were correct.

3.5.6.1.2. Prolonged engagement

When the researcher is immersed in the research to see the live experiences as they are portrayed by the participants. The field worker was immersed in the research during the focus group interview. The researcher therefore had enough time with the participants to develop rapport and a trusting relationship (Holloway, 2005).

3.5.6.1.3. Triangulation

Refers to the use of multiple methods or perspectives by the researcher to collect and interpret data about some phenomenon. It involves combining two fundamentally different data gathering methods. The purpose is to gain insight from different points of view (Burns & Grove, 2005). Triangulation was applied in this study as the researcher used a combined research approach for rich data. In data triangulation the facilitator collected data from the focus group until it was saturated. It was also accomplished through peer examination as the researcher used a facilitator to interview focus groups and supervision by experts was done during data analysis. The researcher becomes the instrument of observation and sees for herself first-hand how people act in a specific setting (Johnson, & Onwuegbuzie, 2004).

3.5.6.1.4. Transferability

Refers to the extent to which findings can be transferred to other settings or group (Litchman, 2010). Transferability can be enhanced by providing what is often referred to as thick description i.e. giving enough details so that the readers can decide for themselves if the results are transferable to their own contexts. Transferability was applied in this study because according to de Vos et al., (2008), transferability can only apply if various sources were used during data analysis. In this study this was attained by the inclusion of multiple data collection strategies (de

Vos, 2005). Therefore the findings can be transferred to other settings.

3.5.6.1.5. Conformability

Refers to the neutrality or objectivity of the researcher and is therefore the degree to which an investigator's own biases or prejudices may impact on the findings of an investigation (Cohen et al., 2007). It is based on the knowledge that research is never objective (Gasson, 2004). The goal of dependability can be accomplished by conducting an audit trail and by managing subjectivity. To enhance conformability and prevent the intrusion of biases and prejudices, the researcher appointed somebody not part of the nursing school to come and interview the focus group.

3.5.6.1.6. Dependability

Involves accounting for all the changing conditions in whatever is being studied as well as any changes in the design of the study. It refers to the stability of data over time and conditions (Polit & Beck, 2004). In this study it was enhanced by using overlapping methods. Overlapping methods use carefully planned methodological triangulation.

3.5.6.1.7. Bracketing

Means that the researcher's preconceptions are held in abeyance to ensure that the researchers do not allow their assumptions to shape the data collection or impose their understanding and construction of the data (Polit & Beck, 2008).

By bracketing the researcher does not influence the participants understanding of the phenomenon and thus it is their reality (Parahoo, 2006). The researcher therefore made use of bracketing which Burns and Grove (2007) describe as a "qualitative research technique of suspending or lying aside what is known about an experience being studied", in an attempt to set aside and suspend her own preconceptions so that the data could be examined with a refreshed and unbiased attitude (Todres & Holloway, 2006).

During the present research bracketing was accomplished by bringing to mind, and keeping in mind, what the researcher already knew about the research topic. In addition, the interrogation of data, during and after interviewing, involved ascertaining that existing mental structures of the researcher did not skew the information the participants came up with. In a sense, the participants' researcher became a layperson and the participants the experts.

3.5.6.1.8. Reflexivity

Refers to the recognition that the involvement of the researcher as an active participant in the research process shapes the nature of the process and the knowledge produced through it. The researcher can achieve reflexivity by keeping a research diary in which one record one's own feelings about the research process, listening to some of the taped interviews, holding periodic meetings with the team so as to reflect on each other's experiences of involvement in the study (Cassell & Symon, 2004). These strategies were used by the researcher to ensure reflexivity:

- *Introspection*- the researcher is a central figure that influences and actively constructs the collection, selection and interpretation of data. The researcher is not separate from the research and his/her presence influences the research process. The researcher has to avoid being biased and has to bracket her feelings and attitudes. The researcher has to seek to embrace his/ her own humaneness as a basis for psychological understanding (Holbrook, 2005). The researcher's position can become unduly privileged to the extent of blocking the participants' voices. The researcher needs to strike a balance and strive for enhanced self- awareness. In this study the researcher asked the facilitator who was an outsider to interview the educators. This was done to avoid the researcher bias, and at the same time the presence of the researcher would block out the participants voices.
- *Inter-subjective reflection*- the aim and objective of focus is to seek the self in relation to

others. In this case self refers to the researcher and others, the participants. The researcher involved others in the research process to help mediate the limitations by providing communal, consensual viewpoints (Finlay, 2003a). The researcher clarified the purpose of her presence as that of maintaining empathic neutrality.

- *Discursive deconstruction*- attention is paid to the ambiguity of meanings in language used during the focus group discussions. The researcher has to paraphrase and make clarity of vague statements by the participants so as to be at the same par (Finlay, 2002).

3.6. Conclusion

In chapter 3 research methodology was discussed. Sampling and data gathering involved in the research were also discussed with special reference to trustworthiness, validity and reliability as occurring in qualitative and quantitative methods respectively. This discussion proceeds to chapter 4 where data analysis will be discussed.

CHAPTER 4

RESULTS AND DISCUSSION

4.1. Introduction

The quantitative and qualitative data which was collected through a student survey and a focus group interview with the nurse educators was analysed using quantitative and qualitative data analysis methods, respectively. This analysis was done to answer the objectives of the study, which are:

- To identify the factors that promote or inhibit students' success in qualifying for entry to the R2175 SANC examinations.
- To determine the perceptions of educators with regard to factors related to pupil nurses' success or failure.

The results and discussion which is presented with a literature control is the focus of this chapter.

4.2. Results of the Quantitative Phase

The results of the student survey are presented in frequency tables, graphs and with the use exploratory factor analysis.

4.2.1. Socio-demographics of students

Frequency distribution is used to display the socio-demographic data obtained relating to the student's age, marital status, race, home language, place and type of residence. Tables are used because they are generally more useful for summarizing data which can then be understood more easily by the reader (Lekhuleni, 2002).

Table 4.1 Student's socio-demographic characteristics

Age (n= 90)	**Frequency**	**Percentage (%)**
26-30	12	13.3
31-35	14	15.6
36-40	15	16.7
41-45	34	37.8
46-51	10	11.1
52+	5	5.5
Total	**90**	**100.0**
Marital Status (n=90)	**Frequency**	**Percentage (%)**
Single	34	37.8
Married	45	50.0
Divorced	7	7.8
Widowed	4	4.4
Customary marriage	0	0
Co-habitation	0	0
Total	**90**	**100.0**
Race	**Frequency**	**Percentage (%)**
Black	45	50.0
Coloured	44	48.9
Indian	0	0
White	0	0
Missing	1	1.1
Total	**90**	**100.0**
Home Language (n=90)	**Frequency**	**Percentage (%)**
IsiXhosa	31	34.4
Afrikaans	33	36.7
English	13	14.4
Tshivenda	4	4.4
Sepedi	0	0
Setswana	0	0
SiSwati	0	0
SeSotho	1	1.1
IsiNdebele	0	0
IsiZulu	7	7.8
Xitsonga	1	1.1
Total	**90**	**100.0**
English competence	**Frequency**	**Percentage (%)**
Not at all fluent	7	7.8
A little fluent	66	73.3
Fluent	12	13.3

Missing	1	1.1
Total	**90**	**100.0**
Preferred medium of instruction (n=90)	**Frequency**	**Percentage (%)**
English	29	32.2
IsiXhosa	16	17.8
Afrikaans	37	41.1
Tshivenda	1	1.1
SeSotho	1	1.1
IsiZulu	4	4.4
IsiNdebele	0	0
Xitsonga	0	0
SiSwati	0	0
Sepedi	0	0
Missing	**2**	**2.3**
Total	**90**	**100.0**
Residence (n=89)	**Frequency**	**Percentage (%)**
Suburbs	42	46.7
Townships	35	38.9
Informal settlement	1	1.1
Shelter	2	2.2
Shack	2	2.2
Caravan	1	1.1
Place of safety	2	2.2
Other	4	4.4
Missing	1	1.1
Total	**90**	**100.0**
Electricity in the home	**Frequency**	**Percentage (%)**
Yes	89	98.9
No	1	1.1
Total	**90**	**100.0**

The discussion will be based on Table 4.1 with reference to the following factors: age of students, marital status, race, home language, residence and the availability of electricity. These were viewed as possible factors which could have an impact on the student's success in their studies.

4.2.1.1. Age

There were no participants younger than 26 year in the pupil nurse programme (R2175). It is common that the students who start the R2175 programme are older and not necessarily school leavers. In many instances it is not uncommon that, prior to their registration in the R2175 programme, students were employed as auxiliary nurses after completing the R2176 programme. The possibility exists that commencing studies long after leaving school may negatively influence students' success. This is based on the fact that roles and responsibilities not only increase post-school, but also become more demanding the older a person becomes. A variety of roles such as being parents, employees and students could pose a challenge for many of these students. It becomes difficult for students to juggle family commitments and studies.

The majority of the students – approximately 86.7% (78.03) – were aged be between 31 and 52 years and above**.** However, many students were aged between 41 - 45 years old (37.8%) and more than half of the participants over 40 years of age. Only 13.3% (11.97) of the students were younger than 30 years of age. It is not surprising that a student in the R2175 programme who is approximately 30 years old is regarded as being young. Age is considered one of the independent variables that may likely affect the academic performance of the student. Cognitive development and maturity (which are positively associated with age) are necessary for a student's worthwhile performance. However, the more mature students are encumbered with other pressing non-academic needs that distract their attention from their studies. Having to satisfy the demands of multiple life roles will affect performance in all those roles (Ukueze, 2007).

In addition, mature students may experience difficulty in coping with the demands of learning compared to young undergraduate students. Mature students are thought to lack those basic skills required for effective study which are related to the varying quality of schooling over the last 20

years. They lack the challenge of finding time and balance. Time comes through as one of the most valuable and scarcest resources. The time they have to spend as a student is the time they are spending at work earning money, or tending to their familial or other personal responsibilities. In addition age-related deficits such as chronic diseases, as experienced by many older persons, often impair their performance (Newman-Ford, Lloyd & Thomas, 2009).

4.2.1.2. Marital Status

The study revealed that 62.2% of the students could be classified as having been married. This number includes those that were married, divorced and widowed. It is possible that divorced and widowed students have the same responsibilities as those who are married. It is often suspected that marriage brings with it additional time-consuming responsibilities which may hamper academic performance. In terms of marital status, several international studies however report better performance for married undergraduate students compared to their unmarried classmates. According to an analysis conducted by Smith and Naylor (2001) married students do better than unmarried students. The finding was attributed to married students' superior experience and good time management. This is supported by the reports of Al-Mutairi (2010) that married students outperform their unmarried counterparts, and that marital status plays a significantly positive role in students' performance. The reasons provided are that married people tend to be more focused and goal-directed than the unmarried. Having to shoulder the responsibilities of being a spouse and sometimes a parent in addition to being a student, all the married students reported becoming more aware and appreciative of and skilled in time management.

The ideas of Smith and Naylor (2001) and Al-Mutairi (2010) are a direct contradiction of the argument by Ukueze (2007) that non-academic demands distract and affect the performance of the mature student.

4.2.1.3. Race, home language, English competence and preferred language of instruction

The Western Cape Province is a multicultural and multilingual province based on inter-provincial migration – a result of people seeking employment in the Western Cape. Half of the students (45) classified themselves as Black. If home language could be loosely associated with race, a total of 44 students (48.8%) reported that they spoke a so-called Black language at home. The Western Cape Province is diversified in terms of race and culture with the majority of citizens (48.9%) regarded as "Coloured." There were no Indian and White students in the study. The language most commonly spoken in this province is Afrikaans.

Foley (2004) explains that the dilemma exists in South Africa, because English, and to a lesser extent, Afrikaans, are the only languages capable of functioning fully as languages of teaching and learning at higher education institutions. He further explains that perhaps most, potential, higher education students are not sufficiently fluent in English or in Afrikaans to study effectively through these languages (Foley 2004). This is also reflected in the finding that the largest number of participants (33) spoke Afrikaans (36.7%). This is closely associated with a majority of participants (41.1%) who reported that they would prefer being taught in Afrikaans.

The accepted language of instruction at the nursing school in this study is English. However, only 14.4% (13) students reported that English was their home language. As can be seen in Table 2, the majority of students (73.3%) reported that they are "a little fluent" in English and only 13.3% reported being fluent in the English language. The number of participants who reported that they are fluent in English (12) is closely associated with the number of participants (13) who reported that English was their home language. Thus it is not surprising that the majority of students sampled in this study struggle to comprehend during the teaching and learning

encounters, as 73, 3% declared to be a little fluent in English. The use of English language as a medium of instruction impacts on students' academic achievement, a finding that is echoed by studies conducted by Arkoudis (2003). These researchers reported that students' home language, preferred language of instruction and English competence has a bearing on academic achievement.

4.2.1.4. Residence and the availability of electricity

The majority of participants (98.9%) reported that they had electricity in their place of residence. At face value, this statistic could be interpreted to mean that the participants were not challenged by a lack of electricity which could negatively impact on their ability to study. However, the study failed to establish whether there was a constant supply of electricity to the home. An interrupted supply of electricity is possible, as many municipalities have moved to pre-paid electricity, creating a situation in which being electrified is dependent on whether the residence has the money to buy electricity on a regular basis. A total of 53, 3% (48) participants live in the peri-urban areas of the province and in informal dwellings. In most cases, it is known that such areas and informal dwellings lack basic resources. Most of the suburbs are adequately resourced.

The fact that most participants live in the townships and informal dwellings suggest that the distance they travel, the cost and the time taken to travel from home to the nursing school (which is located in an urban area) could negatively impact on their studies. Although the R2175 is a full time programme, it is found that students who live off campus often have family and work responsibilities while studying nursing and do not attend the class full time or regularly (Upcraft et. al, 2005).

Table 4.2 Academic performance by student's socio-demographic characteristics

Age group	**Failure %**	**Success %**	**Chi-square**
< 31	61.5	38.5	$\chi^2_{(3)}$= 0.794
31-40	46.4	53.6	
41-50	56.1	43.9	
50+	50	50	
Residence	**Failure %**	**Success %**	**Chi-square**
Urban	28.2	71.4	$\chi^2_{(1)}$= 0.014
Rural	54.2	45.8	
Marital status	**Failure %**	**Success %**	**Chi-square**
Single	76.5	23.5	$\chi^2_{(3)}$= 0.021
Married	42.2	57.8	
Divorced	9.24	57.1	
Widowed	50	50	

Table 4.2 depicts the associations between academic performance and specific socio-demographic characteristics of the participants.

The academic performance did not show a consistent trend across the age groups. At 53.6%, the pupils in the age group 31-40 showed the highest success rate while those below 31 years of age reflected the highest failure rate, at 61.5%. The association between academic performance and age of the participants was not significant, ($\chi^2_{(3)}$ = 0.794). This means that there was neither an association nor a relationship between these variables.

Academic performance by place of residence showed a significant difference between urban and rural students ($\chi^2_{(1)}$ = 0.014). The success rate was 71.4 % among the urban students while it was 45.8% for their rural counterparts. Several authors argue that it is not unexpected that urban students perform better than rural students, based on possible contributing factors such as funding, student population, economic health, inexperienced and less qualified teachers (Alexander & Fuller, 2005) and (Ingersoll, 2003).

Literature describing factors that affect student's readiness for higher and further education include the fact that some rural schools still find it difficult to provide the latest technological trends that students require in order to excel at school. This technology is vitally important as it provides vast opportunities for higher level processing of information. Technology should be used to advance learning and should be available to every student to access the most current information from a variety of sources (NMSA, 2003). A participant's schooling background, often associated with their place of residence, could thus be a contributing factor to their lack of readiness to learn.

Education reforms require schools to accommodate new teaching and learning styles which includes providing laboratory classrooms, flexible instruction areas that can facilitate small-group, large-group, and multi-age instruction, and multimedia canters that offer a variety of technological resources (Brown-Jeffy & Cooper, 2011). In rural communities the lack of finances result in these opportunities not always being readily available which impact negatively on student learning (Smith, 2005). Another challenge in rural areas is the struggle to obtain and retain qualified teachers which directly impacts on the quality and outcome of the teaching and learning process. This is partly due to salary and teaching conditions in rural areas (Hammer et al., 2005).

The marital status of the participants showed significant association with academic performance ($\chi^2_{(3)} = 0.021$). Married students showed the highest success rate of 57.8%, followed by divorced students at 57.1 %. However, single students recorded the highest failure rate of 76.5%. According to Mabuda et.al, (2008) single students are young, inexperienced and not focused on achieving their goal.

The simplest form of data analysis is univariate analysis (one variable is analysed). All the data gathered on that one variable is summarized for easy comprehension and utilisation. The researcher made use of frequency distribution (De Vos, 1998). These variables were related to the student's: age, marital status, race, home language, place residence, availability of electricity in the home, educational background medium of instruction, English competence, upgrade courses (where the students are tested on the work previously done), engaging in any studies, income in rand, family support, financial support by (HWSETA) The Health and Welfare Sector Education Authority, and access to library facilities.

Table 4.3 Student's educational background

Highest grade completed (n=90)	**Frequency**	**Percentage (%)**
Grade 8 = Standard 6	1	1.1
Grade 9 = Standard 7	2	2.2
Grade 10 = Standard 8	5	5.6
Grade 11 = Standard 9	11	12.2
Grade 12 = Standard 10	70	77.8
Missing	1	1.1
Total	**90**	**100.0**
Engaged in other studies (prior education)	**Frequency**	**Percentage (%)**
Yes	36	40.0
No	48	53.3
Missing	6	6.7
Total	**90**	**100.0**
Completed upgrade course	**Frequency**	**Percentage (%)**
Yes	20	22.2
No	63	70.0
Missing	7	7.8
Total	**90**	**100.0**

4.2.2. Students' educational background

The grade a student receives in high school is often an indication of how they will perform in tertiary education (Geiser & Studley, 2003). However, while high school leaving grades are not the only determinants of future success, they do serve as an indicator for admission to tertiary education. Other factors that predict success include motivation, discipline and time management. In a study conducted by John, Hoffman, Katie and Lowitzki (2005) findings indicated that high school grades are stronger predictors of success than standardized test score.

A total of 77.8% participants were in possession of a Grade 12 certificate; 12.2% had a Grade 11; 5.6% had a Grade 10; 2.2% had a Grade 9 and 1.1% had a Grade 8 certificate. Despite the fact that the majority of the students were in possession of a Grade 12 certificate, it seems as though the Grade 12 certificate is not a predictor of success, based on the number of students who do not qualify for entry to the SANC examination (See Table 1.1). A student's success in Grade 12 might be based on the subjects they studied at school. Some of these subjects might not have been relevant to the study of nursing. For example, students might not have studied biology at school, a subject not required for entry to the R2175 programme, resulting in many students struggling in this area because of a lack of biological knowledge. A total of 53.3% of participants did not participate in previous studies. Since the participants (students in the R2175 programme) are employees of the public health sector, they might not have been exposed to formal studies for a number of years. It should be mentioned that the R2175 programme does not register school leavers into the programme. During the focus group interview, nurse educators reported that students lacked motivation to learn coupled with lack of discipline and time management.

A total of 70% participants were never involved in the upgrading course. These include the students who passed the R2176 programme 20 to 30 years ago and have not studied since.

Upgrading refers to being coached or in-serviced on the work that one has already accomplished before being tested to assess competency on the work previously done. The upgrading programme is viewed as being similar to recognition of prior learning for access to a higher level of study. Students who underwent the upgrading programme must have scored at least 50% in the assessment to qualify for entry to the R2175 programme. Since the upgrading programme was discontinued, students who completed the R2176 programme are not well prepared for the R2175 programme. Their entrance to the R2175 programme is based on references and motivation by their supervisors. This poses problems as the supervisors are not testing them on the work previously done. The nursing school is thus challenged by students ultimately not gaining entry to SANC examination (SANC. 2007 Circular 7).

Table 4.4 Students' financial background

Income in Rand	**Frequency**	**Percentage (%)**
999-1999	1	1.1
2000-3999	4	4.4
4000-5999	20	22.2
6000-7999	37	41.1
8000-9999	25	27.8
10000+	3	3.3
Total	**90**	**100.0**
Family's Breadwinner	**Frequency**	**Percentage (%)**
Spouse	18	20.0
Self	58	64.4
Others	3	3.3
Both spouses	10	11.1
Missing	1	1.1
Total	**90**	**100.0**
HWSETA financial assistance	**Frequency**	**Percentage (%)**
Yes	1	1.1
No	89	98.9
Total	**90**	**100.0**

4.2.3. Students' financial background

4.2.3.1. Income in rand

The R2175 students are salaried employees throughout their registration for the programme. They are therefore regarded as employees and students at the same time. The majority (41.1%) of the students earn between R6000 to R7999 per month. A total of 27.8% of the participants earned between R8000 and R9999 per month. The salary for an auxiliary nurse working in public institutions is approximately R7327.08 per month. They struggle to stretch their salaries to cover their studies as well as other personal financial responsibilities. According to the Department of Public Service and Administration (2012) this is exacerbating an already difficult situation. This is confirmed by Dowdia, Alicia and Coury (2006) who suggest that, despite the many barriers to college success, a major impediment is cost. The students have to see to day-to-day living, and buy books and pay for tuition. They struggle to make ends meet and resort to "moonlighting", a term used to describe holding down a night job while being in daytime employ. The workload has increased with the nurse-patient ratio of 1:50 (Aiken, 2012). However nurses are signing up for far too much overtime or moonlighting. This leads to nurses having no time to rest, being constantly fatigued, and subsequently not performing at their full capacity. Their studies also are compromised as a result of their fatigue.

4.2.3.2. Family's breadwinner

The stress and demand of being the sole breadwinner, especially when holding multiple jobs to adequately provide for the family, has a seriously negative effect on studies. This effect is compounded when the student is the breadwinner and has to take full charge of the home and children. There are potential negative health impacts as a result of unusually long and extended working hours, which may result in a lack of concentration and focus, agitation, anxiety and

deteriorating performance levels in the workplace(s). Ill-health influences class attendance which, in turn, influences student performance.

A total of 64, 4% of the students were the family bread winner, while a spouse was the bread winner for only 20% of the participants. The majority who were the bread winners had to seek additional employment to augment their salaries. Dual employment means one can maintain a steady income during school to help offset ones expenses. This may have a detrimental effect on the student as his/her time is devoted to working rather than studying. The end result is that the student fails the assessments and ultimately does not qualify for entry to the SANC examination.

4.2.3.3. HWSETA financial assistance

The Health and Welfare Sector Education and Training Authority (HWSETA) is one of twenty-three statutory bodies established within the legislative framework of the Skills Development Act of 1998. It was established to facilitate skills development in the health and social development sector to ensure that skills needs are identified and addressed through a number of initiatives by the SETA and the sector. The purpose is to bridge the skills gap and to alleviate unemployment. The aim is to ensure the provision of skills to unemployed or employed but unskilled individuals (RSA, 1998). The R2175 students are not eligible for SETA learnerships as they are already government employees who earn a salary. A total of 98, 8% of the students did not receive financial assistance from the SETA. This can have ramifications for students' success. If their finances are inadequate, the situation may affect their academic performance adversely. If, on the other hand, their financial needs are adequately met, their academic performance may be enhanced (Egbule, 2004). Hence it is necessary to examine the relationship between students' financial status and academic performance. This was also affirmed in the focus group with nurse

educators who stated that the students were not buying books owing to lack of funds.

Table 4.5 Academic performance by student's financial status

Income	**Failure %**	**Success %**	**Chi-square**
< R4000	100	0	
R4000-R5999	35	65	$\chi^2_{(4)}= 0.009$
R6000-R7999	64.9	35.1	
R8000-R9999	40	60	
R10,000+	100	0	
Financial Hardship	**Failure %**	**Success %**	**Chi-square**
Yes	50.9	49.1	
No	77.8	22.2	$\chi^2_{(1)}= 0.044$
Family support	**Failure %**	**Success %**	**Chi-square**
Yes	43.3	56.7	
No	74.1	25.9	$\chi^2_{(1)}= 0.008$

Table 4.5 indicates that a student's academic performance did not show a consistent trend with the amount of money the student earns. The students who earn R4000 to R5999 showed the highest success rate of 65%. Failures rates were highest among the students who earns less than R4000 per month and who earn over R10 000 per month. However, there is significant difference between income and academic performance ($\chi^2_{(4)} = 0.009$). In addition, financial hardship revealed significant association with academic performance ($\chi^2_{(1)} = 0.044$). The failure and success rates were 77.8% and 22.2% respectively among students who do not have financial difficulty. Conversely, a failure rate of 50.9 % and a success rate of 49.1 % among those that had financial difficulty was quite unexpected.

For many people, the motivation for acquiring knowledge is for a better life. In this case, while the failure among those who earn the least may be attributed to difficulty or pressure in coping with family issues, that of those who earn more may be linked to complacency. Consistent with financial hardship, the highest failure rate was recorded among those who do not have difficulty

with finances. The students come from diverse socio-economic backgrounds and had to hold down extra jobs to augment their finances. This proved to be detrimental to academic performance (Salamonson & Andrew, 2006).

The success rates were 56.7 % and 25.9% for those who received family support and those who did not, respectively. The association between support from family and academic performance was significant ($\chi^2_{(1)} = 0.008$). This is in line with the expectation that family health fosters progress for everything the family members are involved with.

Table 4.6 Students' use of the library and newspapers

Visits community library	**Frequency**	**Percentage (%)**
Every day or more	1	1.1
2 to 6 times a week	4	4.4
Once a week	24	26.7
Once a month	28	31.1
Never	30	33.3
Missing	3	3.3
Total	**90**	**100.0**
Reads newspaper	**Frequency**	**Percentage (%)**
7 times a week	5	5.6
5 to 6 times a week	5	5.6
3 to 4 times a week	26	28.9
1 to 2 times a week	30	33.3
Less than once a week	18	20.0
Never	5	5.6
Missing	1	1.1
Total	**90**	**100.0**

4.2.4. Use of media resources

Despite the fact that the use of a library would help to build literacy, numeracy and computer skills, approximately one third of the students never visited a community library. A total of 28 (31.1%) of participants visited a library once per month. A study by Green and Riddell (2007) indicated that literacy does have an impact on earnings and on educational attainment. The

results of the focus group revealed that the nursing school does not have a librarian. The educators help the students although they themselves lack library skills. The presence of a librarian would be of great help because it is in the library that students would be taught how to do literature search. Due to their commitments and limited time, married people might choose not go to the library but instead to read the newspaper.

Table 4.7 Types of newspaper students read

Which newspaper do you read	Frequency
Sunday times	17
Cape Argus	22
Voice	30
Daily Sun	17
Burger	14
Community paper	33
Cape Times	12
Others	13

Type of newspaper and how informative it is has a bearing on the acquisition of knowledge. For this question, participants were given the option to choose more than one option where applicable. The study revealed that the majority of the students read *Voice* 33. 3%; 36.7% read the Community paper and 24.4% read the *Cape Argus*. Whether these newspapers are informative and make for good reading has not been investigated. However, if the newspaper is carefully chosen to suit the learners' level, it would offer the students repeated encounters with improving their language and literacy. The only reliable way to learn a language is through massive and repeated exposure to it in context. Vocabulary growth is extended, consolidated and sustained. There is a well-established link between reading and writing. Basically the more one reads, the more one writes (Kroll, 2003).

According to the results of the student survey, 82.2% of the participants had access to television

and 77.8% had access to radio. Television and radio broadcasting thus remains the most influential media for the participants. Such media offer a wide range of channels and stations but the questionnaire was limited in enquiring about participant's preferences. While the majority of students are exposed to radio and television it cannot be assumed that they select channels that would improve their skill level in, say, English. The study by Ortega (2011) stated that there seems to be more support for the idea of linking subtitled broadcasting and better English proficiency levels.

4.2.5. Learning and learning styles

Learning style refers to the ability of learners to perceive and process information in learning situations. One of the most important uses of learning styles is that it makes it easy for teachers to incorporate them into their teaching. Teachers are faced with the challenging question of which teaching strategy or instructional method would best accomplish a variety of goals and objectives. The use of different approaches is therefore important to effective learning (Allen & Tanner, 2003). Ornstein and Lasley (2004) also wrote that specific teaching methods were useful for accomplishing certain purposes in certain situations and that no one method was optimal for all purposes in all situations.

The survey presented students with 4 options to choose from on a Likert scale to indicate which best suited their learning style**.** Some people may find that they have a dominant style of learning, with far less use of the other styles. Others may find that they use different styles in different circumstances. The notion of matching teaching and learning style is consistent with the fundamentals of adaptive strategies, in that instruction should be adaptive to student cognitive traits (Chu & Chui, 2009). A successful learner learns in several different ways. The results

showed that the students are moving between different learning styles. As a result we can infer that most students possess multiple learning styles or a combination of different learning styles. As such they are able to learn effectively. This is an obvious indication that learning styles make an impact on student's overall achievement. Kolb and Kolb (2005) state that there is no such thing as a fixed learning style, rather learning occurs on a continuum ranging from concrete to abstract, or from reflective observation to active experimentation. Instructors and students should recognise that the way each person processes information varies, and that each student is an individual and one-size-fits-all is a misnomer. The study by Wing and Hoi (2009) confirmed that there are relationships between learning and student achievement.

4.2.5.1. Student's learning styles

Figure 1indicates that a total of 50% of the students learn by doing, 12.2% by watching, 33.3% by thinking, and 1.1% by feeling. All four types of learning styles were used by 2.2%. The majority of the students learn by doing. That does not come as a surprise as nursing is a hands-on profession. Students need to be exposed to the practical part of learning to acquire the skills needed to deliver quality nursing care to the patients. They are therefore being rotated in the clinical areas to integrate theory and practice. Lack of learning by doing could lead to a workforce lacking the appropriate skills to fulfil their role competently. This could in turn affect patient care and increase the risk of unsafe practice. A total of 33.3% learns by thinking. Nurses should think critically. Fisher (2003), defines critical thinking as "the process of searching, obtaining, evaluating, analysing, synthesizing and conceptualising information as a guide for developing one's thinking with self- awareness, and the ability to use this information by adding creativity and taking risks. According to Kolb (1984) assimilators, accommodators, or convergers, are identified as having higher critical thinking scores. A total of 12.2% learn by

watching. This type of learners is known as divergers. Divergers prefer to watch rather than do, gathering information and using imagination to solve problems. A total of 2.2% displays all different types of learning styles. This is a dynamic group as it covers all the learning styles, but it is represented by a relatively small percentage of students.

4.2.5.2. Student's active learning approaches.

The majority, a total of 52.2% of students use different perspectives when solving problems (see figure 2), followed by 26.7% who prefers to use a practical approach to problem solving. A total of 5.2% uses trial and error and a total of 7.8% would like to experiment with ideas. More than a 25% had a practical approach to learning and a 50% of the group of students learn by doing. Trial and error and those who prefer to experiment with new idea both constitute learning by doing. Therefore approximately 40% of students learn by doing.

Figure 4.1 Student learning styles

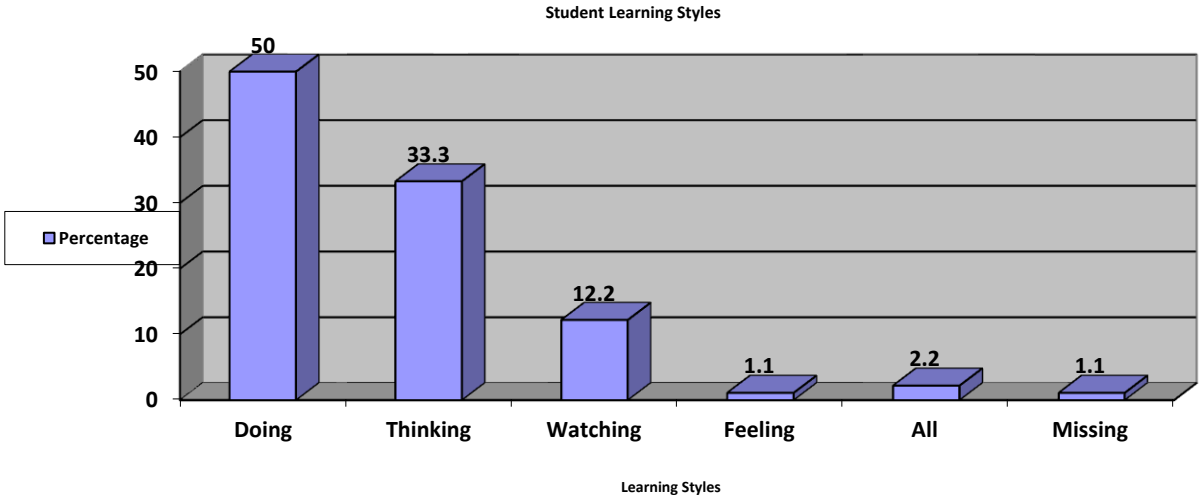


Figure 4.2 Student active learning approaches

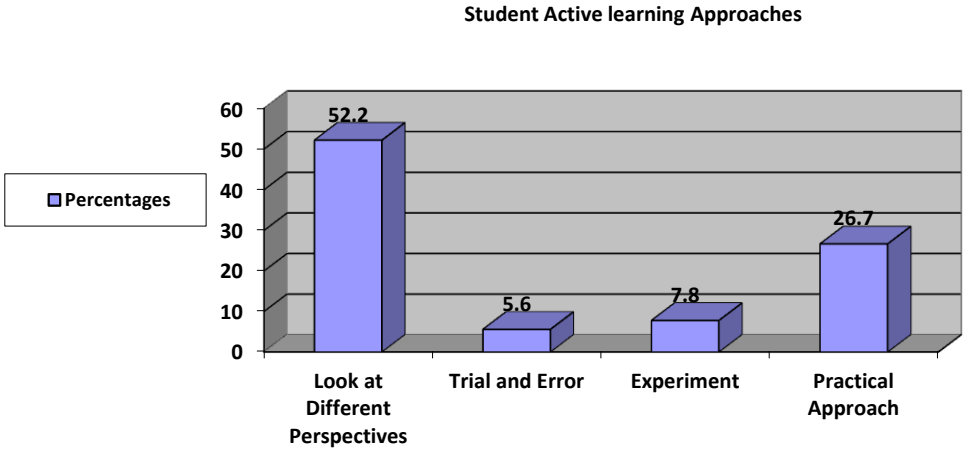


Table 4.8: Summary of exploratory factor analysis on factors that promoting and inhibiting success rate among student nurses c

Item	CP1	CP2	CP3	CP4	CP5	CP6	CP7	CP8	Communality
Textbooks are available in one language only	0.808								0.739
I get enough support from my family	0.768								0.689
Accepted by my peers	0.714								0.73
I have vested interest in the course	0.691								0.744
I feel that I can rely on my colleagues for assistance if I would need it	0.613								0.678
I feel that my inexperience with computer negatively impacted on my studying experience	0.591								0.787
In the wards I am given opportunities apply theory into practice		0.835							0.813
Learning opportunities are made available for students in the wards		0.827							0.76
Great deal of cooperation between ward staff and student nurses		0.822							0.83
I felt supported in attempts at learning new skills			0.813						0.768
I have access to resources such as libraries or internet			0.81						0.742
I came prepared for the course as I have been waiting to be admitted			0.526						0.643
I am lacking self-motivation to learn				0.829					0.819
Class room temperature is comfortable				0.761					0.748
My study has caused me financial hardship					0.838				0.867
I feel that my self-image has improved because of this experience					0.822				0.826
Bursaries are made available by the employer						0.821			0.792
Feel not included in ward activities or made part of the team						0.574			0.742
I get encouragement motivation and support from the educators							0.738		0.805
Teachers help, befriend trust and show interest in learners							0.645		0.737
I am allowed more independence with increased skills							0.508		0.671
Supplies and material are sufficient								0.82	0.786
There is lack of administration support, no librarian								0.749	0.762
Eigenvalues	4.71	3.55	2.18	1.82	1.63	1.47	1.1	1.01	
% of Variance	15.26	10.53	10.23	9.35	8.56	7.46	7.33	7.27	
A	0.78	0.76	0.65	0.52	0.52	0.5	0.5	0.25	

Factor loading below .5 was excluded for analysis. A principal component analysis (PCA) was conducted on the 23 items with orthogonal rotation. Bartlett's test of sphericity X2 (253) = 657.87, $p < .001$ indicates that correlations between items were sufficiently large for PCA. Communalities of 0.6 range for a relative small sample size (less than 100) is perfectly adequate according to MacCallum, Widaman, Zhang & Hong, (1999). Communality suggests the amount of variation in the question that is shared or common to all items. An initial analysis was run to obtain the eigenvalues for each component in the data. Eight components had eigenvalues over Kaiser's criterion of 1 and in combination explained 76.00 % of the variance on factors that promote and inhibited success rate among student nurses. The items that appear similar were clustered and the meaning was attached..

The CP1, CP2, and CP3, all had high reliabilities, Cronbach's alpha = (.6 to .78). However, other component subscale had relatively low reliability, Cronbach's alpha = (.25 to .52). However, Cortina (1993) noted that low alpha does not entirely suggest unreliability of scale, rather a measure of uni-dimensionality (one underlying factor or construct). In addition, alpha increases as the number of items on the scale increases.

The naming of CPs was done. For instance, when looking at CP2 there are three factors that form it. It can be summarised as “Quality mentorship” or “student support” such factors can promote success. For the students to do well in their studies there is a need to continue improving on such factors that come together as component CP2. The CP7 and CP2 appeared to be similar the presence of which can promote success.

CP3 denotes “availability of learning resources.” When there are resources and students are making use of them, it will impact on their success positively. Attention should also be

channelled to the students reciprocating by making use of them.

CP4 to CP6 have a dual effect, having a comfortable study room with lack of motivation will inhibit success. The attention will be to improve self-motivation. For CP5, financial hardship may suggest that the bursary is not enough. Not being included in ward activities may impact negatively on the student's success, especially since most students indicated that they learn by doing. Where there are supplies and material sufficiency but no librarian, and with lack of computer skills as in CP1, means that the resources may not be used maximally, noting there will be language barriers also mentioned in CP1. These multiple factors have potential to affect student's success.

4.3. Results of the Qualitative Phase

A focus group discussion was held with the educators to answer the second objective of the study which was to determine the perceptions of educators with regard to factors related to pupil nurses' success or failure.

The purpose of qualitative data analysis is to condense extensive and varied raw text data into a brief summary format and to establish clear links between research objectives and the summary findings. The qualitative data (the transcription of the focus group discussion) was subjected to a process of content analysis as described in chapter 3.

The following four themes emerged from the data:

i) Students' challenges around their learning abilities;

ii) Students' lack of confidence and poor self-esteem;

iii) Lack of resources and support for student learning; and

iv) Academic programme that is too loaded for educator and student

Table 4.9: Categories and themes from the focus group discussion

Categories	Themes
Challenges for mature aged students	i) Student's challenges and lack of the ability to learn
Lack of consistency in learning	
Poor time management	
Lack of scientific knowledge	
Lack critical thinking and ability for lifelong learning	
Poor theory-practice integration	
Student learning styles	
Lack of confidence and poor self esteem	ii) Students lacked confidence and displayed poor self-esteem
Lack of readiness, preparation for learning and poor participation in class	
Absenteeism in class and practice	
Poor literacy and numeracy skills	iii) Lack of resources and support for student learning
Poor computer literacy	
Lack of clinical support in the ward	
Poor life skills	
Lack of administrative support	
Lack of finance	
Lack of family support	
Educator workload and content laden curricu-lum	iv) Programme was too loaded for educator and student

4.3.1. Discussion

4.3.1.1. Theme 1: Students' challenges and lack of the ability to learn

This theme relates to the challenges experienced by students of a mature age, such as lack of consistency in learning and poor time management, lack of scientific knowledge, critical thinking and ability for life-long learning and poor theory-practice integration.

The nurse educators reported that, although a steady pace of learning is ideal, this is not the case with the R2175 students as was reported by this educator: *"They don't go back to the textbooks and read the work with understanding, they find it difficult to analyse SANC questions during*

examination. They do not want to buy books" The increasing demands that students face may make such a consistent schedule difficult. Increased competence typically leads to motivation to engage further, thus inspiring continued motivation to engage. This cycle supports improved student achievement (Lee, 2005).

i) Challenges for Mature aged students

There has been an increase in mature students entering nursing (McCarey, Barr & Rattray, 2007). British studies found two important predictors of academic success: the age of the student and the educational preparation of younger students (James, Bexley & Shearer, 2009). The majority (70%) of the students in the current study had ages ranging between 36 years to 52 years and older. These students have not studied for quite a while. It takes them a while to get back into the mind-set of a student. However the results also show that the students in the age group 31 to 40 years were more successful, followed by the students aged 50 and above. In other words, they fared better than the students who were 31 years and younger. Mature students are seen to perform better than their peers regardless of entry pathway as they have lots of experience. Students with higher level entry qualification are seen to consistently achieve higher grades than those with lower grades (McCarey, Barr & Rattray, 2007). One of the educators commented "*probably the last but not the least is that fact that our learners are a bit mature, old. If you look at them they are over 30, 40 years with a lot of responsibilitie*s." Adult students returning to college often have added burdens of caring for small children, working part or full time while taking classes. In addition, social demands may need to be put on hold during school years and limited vacation times have often had to be eliminated. Adult students often have to rely more heavily on extended family members to help achieve or to overcome the obstacles of home, school and work (Kirby et al., 2004)

ii) Lack of consistency in learning

Consistency improves motivation which lecturers reported to be lacking. One of the lecturers mentioned: *"Our students are not consistent in reading."* This comment supports the quantitative findings that more than one third of the students never visit the library. According to the educators, there are many possible reasons for this being the case, including the fact that they are heavily involved in their personal lives where they fulfil many different roles. In addition, the clinical areas are busy and with limited staff and after a day in the ward, the student is very tired and unable to put in study time. This results in such students failing to correlate theory and practice.

iii) Poor time management

According to Van Blerkom, Solomon and Tayler (2008), time management is an important skill which assists students to manage the variety of responsibilities in their lives which, in the end, can save the student time. Effective time management prevents information overload which is counter-productive to learning (Zeldes, 2009). One of the educators commented "*they do manage their time effectively to get into details of what has been learnt.* Ellis (2003) suggests that, when students cope with the demands of their everyday life and studies, they develop self-confidence which, according to the nurse educators, was another crucial element lacking in students enrolled on the R 2175 programme.

Baldwin (2005) acknowledges that today's college students are more than just students; they are parents, employees, heads of households, and volunteers. This challenges them to balance home, school, work and everyday life. The socio-biographic conditions of the participants in this study sketch a similar picture, with many participants being married, breadwinners and employees.

iv) Lack scientific knowledge

Knowledge of science has been recognised as being critical in the performance of professional nursing skills. Nurses rely heavily on an extensive knowledge base of human sciences. Success in science courses has a high colleration with student success in completion of the nursing programme of study and success on the examinations (Harris, Hannum and Gupta, 2004). One of the educators commented "*the students are not scientific when they nurse patients, they cannot match the diagnosis with the medication they give. Their nursing care is fragmented."*

v) Lack of critical thinking and ability for life-long learning

Lifelong learning, as defined by Crick, Broadfoot, and Claxton (2004) is an individual's capacity and enthusiasm for learning – it keeps the mind sharp, increases self-confidence and builds on skills which already exist. The students in this study passed the R2176 programme which prepares them for the R2175 programme. According to the educators, the students do not consult their textbooks again once they have passed the programme. As a result, they tend to forget what they have learnt. A strong learning identity would raise academic achievement and better prepares individuals for success in a changing world. Lifelong learning is intentional learning that people engage in throughout their lives for personal and professional fulfilment to improve the quality of their lives (Dunlap & Grabinger, 2003). According to the nurse educators, the students lack life-long learning skills. This has resulted in a lack of scientific knowledge and critical thinking skills.

Comments from educators were: "*I think they have lost the "thing" for life-long learning, and if they carried on learning right away from the time they were pupil nursing assistants [R2176] to when they came to do the R2175 programme, they wouldn't have a problem. I think, as lecturers, we must also ask ourselves what are we doing to promote the culture of learning amongst R2176 candidates and is there anything we can do to promote the culture of learning."* Another comment was: "*I think learners expect to be spoon-fed; they are inconsistent; the work has been done, the objectives have been given, they just do not want to learn."*

The quantitative findings indicated that all students were aged 26 and above; only 70% of the total sample had passed grade 12 and the majority of students did not complete the upgrading course in preparation for entry to the R2175 programme. While these findings do not indicate that the students are not life-long learners, they do alert us to that fact that learning has been somewhat tardy.

vi) Poor practice-theory integration

The ability to apply knowledge to practice is fundamental in creating competent and highly skilled practitioners. Training should not be confined to the classroom; it should include a theoretical and a practical aspect. There should also be good supervision in a supportive environment (Nancarrow & Mackey, 2005). Increased workload coupled with staff shortages, and a lack of role models in the clinical area is regarded as the reasons for the lack of theory-practice integration (Chin & Kramer, 2004). The educators verbalized the fact that there is a lack of integration of the theory which students learn in the class, into clinical practice. It is therefore critical that the students are able to apply theory to practice in the clinical area. The theory-

practice gap has been studied widely in nursing in an attempt to integrate theory to practice (Baxter, 2007; Maben, Latter & Maclead Clark, 2006). However, inadequate theory and practice integration still occurs (Mabuda, Potgieter &Alberts, 2008).

An educator commented "*for me the greatest thing is their literacy problem, it impacts a lot because even if a student is committed that becomes a challenge to interpret what she or he is learning. As a result they mostly use rote learning, they memorise the stuff for a short while then they forget it. And therefore they cannot correlate theory and practice"*.

vii) Student's learning styles

Human beings are different. There is therefore nothing like a one-size-fits-all approach when it comes to the way they learn. Learning style has been found to be an important variable in students' academic achievement (Landrum & McDuffie, 2010). Rickets and Rohs (2005) described the need for the infrastructure to determine the learning styles of their students. Knowing students' learning styles can help in various ways to enhance learning and teaching (Graf, Kinshuk & Liu, 2009). One of the lecturers reported: *"I think the challenge of different styles of teaching and even different learning styles can also influence how they actually learn….. which could also be a factor* [that affects their success]*"*.

4.3.1.2. Theme 2: Students lack confidence and display poor self-esteem

This theme relates to students' lack of confidence and poor self-esteem. Their lack of readiness and preparation for learning and poor participation in class negatively affected their learning and resulted in them being absent from class and clinical practice.

i) Lack of confidence and poor self-esteem

According to the educators, students lack confidence, and this negatively affects their learning. An educator reported: "*I am not sure if things like confidence....play a role in how they* [students] *learn or how they progress in their learning. Because I think if you are confident about something you will move with it but if you feel very unsure I think it can also impact on how you are going to be learning"*. Oniyama and Oniyama (2005) and Afalobi and Imhonde (2003) concur with this idea, and argue that the more the students are motivated, the better their academic performance.

Confidence is a measure of one's belief in one's own abilities. According to the Oxford Dictionary (2007) confidence is "having strong belief, firm trust, or sure expectations; feeling certain, fully assured, bold; sure of oneself, one's cause, etc. having no fear of failure". Experience tells us that confidence differs between people in the same situation and that people have differing levels of confidence in different situations.

Self- efficacy is commonly defined as the belief in one's capabilities to achieve a goal or an outcome. Students with a strong sense of efficacy are more likely to challenge themselves with difficult tasks and be intrinsically motivated. These students will put forth a high degree of effort in order to meet their commitments, and attribute failure to things which are in their control, rather than blaming external factors. Self-efficacious students also recover quickly from setbacks, and ultimately are likely to achieve their personal goals. Students with low self-efficacy, on the other hand, believe they cannot be successful and thus are less likely to make a concerted, extended effort and may consider challenging tasks as threats that are to be avoided. Thus, students with poor self-efficacy have low aspirations which may result in disappointing

academic performances becoming part of a self-fulfilling feedback cycle (Margolis & McCade, 2006).

ii) Lack of readiness, preparation for learning and poor participation in class

Unpreparedness can be viewed at two levels. Firstly, many students who enter colleges or universities are academically unprepared; they lack basic skills in at least the three basic learning areas of reading, writing and mathematics (Tritelli, 2003). As a result, King (2004) postulates that students are failing due to lack of academic preparedness. The nurse educators reported that "*learners come to the programme not ready. They come prematurely ready in terms of studying, so they lack foundation. The students have passed R2176 but may have packed the books far away and then they come to the course having forgotten what they had learned previously because they did not consolidate what they had learned in the previous block. They come into the programme unprepared."*

Readiness to learn does not depend on the knowledge, understanding and the skills that the individual brings to a new learning situation. However, educators need to appreciate that readiness is profoundly influenced by an individual's prior learning success and failure, self-esteem, sense of efficacy and social status within the class (Powell & Kusuma-Powell, 2011). Readiness and motivation goes hand in hand. According to Artelt (2005) motivation is a current or recurrent desire to acquire knowledge. Students can have increased motivation when they feel some sense of autonomy in the learning process (Reeve & Hyungshim, 2006). This, according to Herdre and Reed (2003) will increase self-esteem and levels of competence which decreases the

chances of drop-out.

Secondly, students come to class sessions unprepared. This is directly linked with the level of participation in the class. It goes without saying that if students are unprepared, they will experience difficulty participating in the discussions.

According to the nurse educators' reports, students are unprepared on both levels. Firstly the operational managers who motivated for the student to register for the R2175 programme do not test their knowledge to identify the gaps and to try to bridge them. This educator reported: "*They lack foundation. The foundation is supposed to be a firm grounding of R2176 programme."* Secondly, the students come to the class unprepared. Little or no effort has been made to revise the previous work covered in the class.

The nurse educators reported that students do not readily participate in class. As mentioned early, one lecturer reported that "students wait to be spoon-fed." This affects the level at which students learn and negatively impacts on deep learning. When deep learning does not occur, students struggle to make the grade. This is supported by the idea that higher levels of engagement in school is positively linked with improved performance and students' lower levels of engagement are linked with poor performance and drop out (Fredricks, Blumenfeld & Paris, 2004).

Participation is firstly characterized by class attendance and preparedness, which, according to the nurse educators, was not the case with the R2175 students. Research shows that class participation certainly does have many pedagogical benefits (Petress, 2006; Weaver & Qi, 2005).

Modern educational theories advocate that students must engage in their own learning. Expression of one's belief in a subject is a means of taking ownership and internalizing the subject matter being presented (Girgin & Stevens, 2005). The teacher should no longer be the core of the teaching and learning process, instead, student-centred learning has proven successful within a more vocal classroom culture. Research studies have found that when all the students are engaged in educationally purposeful activities they all benefit (Kuh et al. 2005).

iii) Absenteeism from class and clinical practice

Lack or readiness for learning and lack of preparedness for participation in class may be the trigger for a student's absenteeism from class and clinical practice. The opposite is also true and is suggested in a study done in Kenya by Richard and Wang (2012) which indicated that student absenteeism affected academic performance and that the level of student absenteeism mattered in academic performance. Attendance also strongly affects standardised tests scores and graduation dropout rates. One nurse educator reported "*absenteeism is a problem…if you are absent you have missed a lot."* In a study by

Halpern (2007) that dealt with rampant student absenteeism, reasons cited for the absenteeism included a lack of interest in the subject, poor teaching strategies by the lecturers, an unfavourable learning environment, students having part-time jobs to augment bursaries, and poor lecturer-student relations. The study also found an inverse relationship between student absenteeism and course performance. Absenteeism disturbs the dynamic of the teaching-learning environment and adversely affects the overall well-being of classes (Segal, 2008

From a quality point of view it is thought to be a waste of educational resources, time and human potential. Lecturers have to spend class time re-teaching, stealing instructional time away from the students who attend regularly.

4.3.1.3. Theme 3: Lack of resources and support for student learning

This theme deals with students' poor literacy, numeracy, computer and life skills; lack of clinical support in the ward; lack of finance and family support.

i) Poor literacy and numeracy skills

Academic underperformance due to poor literacy and numeracy skills is a challenge in studying nursing. Limited reading, writing and mathematical skills seem to be a major challenge facing student nurses. Classes reflect cultural diversity with some students being well versed in English and others not. These were the comments made by lecturers "*For me the greatest thing is their literacy problem, it impacts a lot because even if a student is committed it becomes a challenge to interpret what she or he is writing, as a result they mostly use rote-learning, they memorise stuff for a short while then they forget it."* Another comment was *"I think literacy and numeracy play a major part in this problem…"* Yet another *"I think … It's got a lot to do with their education, the way they were schooled. It was about rote-learning and regurgitating everything back that was given to them. They don't go back to the text books"* Another nurse educator agreed with the previous one and reported *"I would agree with the previous speakers in saying poor literacy is one of the stumbling blocks and also lack of prerequisite knowledge."*

The quantitative study indicated that English was not the mother tongue of the majority of the students. English was however the medium of instruction at the nursing school where the R2175

programme was offered. Students who cannot articulate well in English find it difficult to explain themselves and express themselves in the answering of questions in tests and examinations. In addition, reading academic textbooks written in English is also a challenge for these students (McCoubrie, 2004).

A study by Salamonson (2008) revealed that there was a positive correlation between English language proficiency and academic performance.

Expo et al. (2007) stated that there was a significant relationship between the availability of literacy materials and students' development of literacy skills in reading. This means that students who are exposed to available literacy materials develop literacy skills and perform academically better than their counterparts in the teaching-learning process. This finding was echoed by Offormat (2007).

ii) Poor computer literacy skills

The domain of online learning is new to most of our students. Many lack fundamental computer skills while others are newcomers to the internet. Lack of experience impinged on their ability to adapt to the new learning environment. This resulted in the dwindling of their motivation. The use of technology in teaching allows teachers to organize their teaching in an efficient manner (Achacoso, 2003). This not only helps students understand the topic better but can also save time that can then be used to explain abstract matters to students.

Several researchers have indicated that the opposite is also true, in that a teacher's lack of knowledge and skills are primary factors in their (the teachers') failure to integrate computer

technology into learning programmes (Mouza, 2003). This is a comment from one of the educators "*The whole question of resources, I think there is almost like a lack of insight as to what resources are available. Because in this modern age you can easily Google just about anything that is written. There is also that thing of computer literacy that is sadly lacking which I think in today's world those are all things that you need to have."* It is not uncommon for older people to lack skills in the use of computers, to possess a poor quality of information technology, or even to lack such technology entirely.

iii) Lack of clinical support in the ward

The clinical environment is defined as one that provides an interactive network of forces within the clinical setting and consists of all that surrounds students, including clinical setting, equipment, clinical staff, patients and educators (Papp et. al, 2003). Providing support to students in the clinical area helps to develop their self-confidence and improve learning and ultimately results in the development of competent practitioners (Aston, 2004). This, according to the nurse educators, is necessary as students in the R2175 programme display a lack of self-confidence. Planned clinical experiences enable students to develop clinical skills, integrate theory and practice, apply problem-solving skills, develop interpersonal skills and become socialized into the nursing profession.

According to Clarke et al. (2003) a learning environment can be divided into academic and clinical settings. The fundamental factor in a traditional apprenticeship style hospital-based training is that a student is regarded as part of the workforce on the basis that he/she is already registered as a nurse and is a paid employee (as described earlier). This has resulted in

overreliance of the employing institutions on the services of student nurses. As a result, the student nurse misses learning opportunities related to the R2175 programme which, in turn, means that learning needs and outcomes are not met. This has disadvantaged the students as they do not get support from the staff, who, most of the time, complain of their high workloads and shortage of clinical staff (Hutchings et al., 2005). The emphasis in the clinical area is therefore on getting the work done rather than meeting the students' learning outcomes. Students are therefore compelled to learn from senior student nurses in the ward. Opportunities to bridge the theory-practice gap are frequently missed (Papp et al., 2003).

Research suggests that effective teaching and learning environments facilitate a deep approach to learning where students are actively involved and seek further meaning and understanding through experience, application, practice and reflection. McGillin (2003) maintains that the students' resilience is the best barometer for success. Resilience means that the students have internal and external support which is necessary for success.

One of the nurse educators suggested that *"there should be a system of finding out or identifying who wants to study the programme* [R2175] *as early as possible, then those people, after they have been identified, could be mentored or supported from the onset. I would agree with my colleague… that it will be good if there could be real and consistent support from the clinical environment, even if you are not only following up people* [staff] *who are going to study* [register for the R2175 programme] *but keeping every nurse [who] is in the clinical environment current and keeping them up to date…".*

iv) Students lack life skills

These skills relate to, amongst other, a healthy life style, budgeting, and effective management of social problems. The nurse educators reported that students are lacking in life skills.

The skill of time management is another life skill, discussed earlier, found to be lacking in students. These are some of the comments by educators: *"I think one of the big issues that we have are social problems. Kids on drugs, divorce, and all those sort of things that impact on the* [student] *nurses.*

Another comment was *"Talk about things like budgeting, healthy life style… because if that is not done it's always a challenge…"* The inference is that if the student has the life skills to deal with everyday matters, they would be more settled to take up their role as students.

v) Lack of administration support

The absence of a librarian in the nursing school means that the educators have to help the students despite the fact that they do not have library skills. This adds more burdens to the already compromised teaching and learning process. Classroom teaching suffers due to time spent on administrative work. One of the educators commented *"[on] the whole question of resources, there is no librarian to help students to find literature; the educators are helping when not busy, but do not possess library skills."*

According to a study by Ajayi and Adetayo (2005) young people must be given access to books and periodicals. These authors postulate that library resources, if used properly, would produce great thinkers and well taught graduates. The library therefore has a very important role to play

in education and each institution should have a well-resourced library (Seth & Parida, 2006). In addition Smith (2006) suggests that well-staffed programmes, especially those with full-time professional and support staff, have a greater impact on student academic performance.

The findings of a study by Aluede and Omoregie (2005) showed that both students and teachers strongly believe that provision of library equipment and qualified teachers would motivate students in their academic endeavour. The availability of a well-equipped and serviced library is crucial to the students in the R2175 which, according to the quantitative study, showed that the visitation and use of the library is low. One could thus infer that, if the library were conveniently situated, students would possibly use it more often.

To attract highly qualified teachers, state-of-the-art facilities must be provided to create learning environments that increase achievement (Levin, 2009). Williams and Jez (2010) are of the opinion that school financial resources do impact on student achievement. The study by Yara (2010) found that lack of resources impact on academic performance. These findings are in consonance with the findings by Yara (2010) and the report by (UNESCO, 2008).

vi) Lack of finance

The survey questionnaire showed that 98. 9% of the students in the R2175 programme did not receive financial assistance. The educators mentioned this fact during the focus group interview. This poses a problem as students do not have money to buy learning material. Learning without relevant material can be a challenge as students then expect hand-outs from educators. Interacting with literature in this way is not ideal, as hand-outs (which are essentially a selection of texts based on what a lecturer thought was important) lose the essence of active participation

and active learning. Teaching quality impacts student performance. Due to incompetent human resource hiring processes, some schools hire less qualified teachers, which impacts on the quality of teaching and ultimately the student's learning experience (Cortez, 2007).

These were the comments from educators *"They* [students] *don't want to buy books. Resources need to be available… that is what I was talking about…to develop a culture of learning. You cannot force them…they are not used to learning; they have forgotten that when you go to school you must buy books. So there is no commitment and responsibility and you cannot force that because we had a fight with student…* [when] *guiding them on what needs to be done*".

vii) Lack of family support

Students who are accepted, supported and encouraged by their families perform better academically. The majority of our students are employees and students. They are self-supporting. They have many roles to fulfil, for example, as single parents, wives, workers and students. Their families depend on them for support. The mere fact that they are parents means they have to support the family financially and emotionally. However, in their multiple roles, they need support in order to succeed.

4.3.1.4. Theme 4: Programme was too loaded

This theme refers to the content-laden R2175 programme and its impact on the student and educator workload.

i) Educator workload and content laden curriculum

Good teaching fosters a sense of student control over learning and interest in the subject matter.

Good teachers create learning tasks appropriate to the student's level of understanding. They also recognize the uniqueness of individual learners and avoid the temptation to impose "mass production" standards that treat all learners as if they were exactly the same. Cognisance of student learning styles is important, as mentioned earlier. Student engagement is the key to success (Weimer, 2009). Students however become overwhelmed with work. The majority of students shared the perception that academic overload led them to memorization and rote learning in order to succeed and this was echoed by Last and Fulbrook (2003). Time restriction was perceived as a major factor impeding the provision of effective support in the class. The lack of administration support has led the educators to devoting more time to additional administrative responsibilities, leaving them with less energy to attend to student matters. Time for effective interventions is compromised – educators have to focus on completing set syllabi. One of the educators confirmed this by saying *"I also think that the curriculum is very content-laden and for the student who have problem with literacy…they find it difficult to cope with the volume of work that they have to process"*.

Workload is appropriate when students are provided with enough time for completing learning tasks and learner capacity is taken into account. A too tight schedule does not enable effective learning but results in student overload and superficial learning (Entwistle & Smith, 2002). It is very difficult to wean students off from years of passive learning, especially if students have used this method and are able to regurgitate huge chunks of information in order to avoid failure. A vast syllabus and increased workload for both student and teacher leads to anxiety. This is exacerbated by poor teaching and learning approaches. This pushes students towards using the surface learning approach as a coping strategy.

Moeti et al. (2004) found that workloads and shortage of equipment limited opportunities for proper teaching and guiding of student nurses in the clinical settings.

4.4. Conclusion

In this chapter the findings from the analysis of quantitative and qualitative data was presented and discussed. Relevant literature was presented to support and contextualize the research findings. Quoted text from the qualitative data was presented to substantiate claims.

The following chapter will focus on summarizing the findings, presenting the limitations of the study and making recommendations.

CHAPTER 5

LIMITATIONS, RECOMMENDATIONS AND CONCLUSIONS

5.1 Introduction

In this chapter a summary of the findings, limitations and recommendations will be discussed.

5.2 Summary of findings

The quantitative phase of the study found that most students in the R2175 programme were over the age of 31, were or had previously been married, were breadwinners, lived in non-urban areas and spoke an African language. The findings also revealed that older and married students showed more rates of successful entry to the SANC examination than those who were young and unmarried. The study also revealed that students did not use the library often, which corroborates the educators' suggestion that students' literacy skills were poor.

In many instances, the qualitative findings supported the quantitative findings. An example of this would be the claim that students lacked literacy skills which otherwise could have been improved if the library at the nursing school was well resourced and the librarian was available. Students were assessed by the educators as being burdened by the multiple life roles they had to fulfil. Additional findings that could relate to students' lack of successful entry to the SANC examination relates to the loaded curriculum and high workload of educators which takes away valuable time which otherwise could have been spent on the teaching and learning process. Educators identified that students are challenged with numeracy and computer skills which are thought to impact their success.

The theoretical framework linked with the findings. Experiential learning is recognised as part of the foundation of learning and suggests that learners remember more effectively when they are actively involved. Action learning can only be of value if applied to real-life situations. Action learning encourages creative thinking. It is believed that it promotes greater interest in the subject material, increases understanding and retention of course material, improves problem solving and critical thinking (Brickner & Etter, 2008). The results showed that 50% of the learners (learn by doing) and the educators should encourage these learners by creating learning opportunities. Kolb's experiential learning theory applies a holistic approach to learning. The students fluctuate between doing, thinking, feeling and watching. It does accommodate the diversity of students and the fact that they learn differently. The theory can be used as a starting point for exploring how the individuals learn (Kolb & Kolb 2005). Most experts agree that when students take an active role in the learning process, the student learning is optimised (Smart & Csapo, 2007). Students remember only a fraction of what they hear but the majority of what they actively do (Hawtrey, 2001). Weaker preferences in the learning cycle can be strengthened to aid learner in adapting to various teaching styles while strengths can also enhance the learning outcomes.

The systems theory concentrated on the students with diverse needs that can impact on the learning. These factors came up strongly during the analysis process. The theory also looks at the student as a total being: physical, social, emotional and cultural factors that can impact on learning. For the student to function optimally these needs need to be met. These factors were finance, lack of mentors, language or literacy lack of educators and overcrowded clinical areas. These factors came out strongly from the students and from the group of educators.

5.3 Limitations of the study

- The study suffers from a lack of generalizability as it was limited to a particular nursing school. The study is therefore not representative of all the R2175 student nurses educated and trained in the whole of the Western Cape.

- Time and financial constraints prevented the researcher from expanding the study to a wider representation in the Western Cape.

- The study could have been strengthened with the inclusion of clinical staff. A wider approach to understanding the subject would have provided a clearer picture of the factors that promote or impede nursing students' success at the R2175 examination.

- The questionnaire could have listed more questions of factors directly linked to or having the potential to influence student learning. Different types or forms of questions could have been asked.

- The questionnaire, to some extent, focuses more on understanding the student rather than the factors that directly affect their learning. Inferences had to be made about the findings.

- Pertinent questions regarding what students are struggling with in the programme should have been asked.

- The questionnaire could have been structured to ascertain how multiple factors which could possibly promote or inhibit success, affected one specific student rather than establishing a random list of factors.

- One open-ended question might have provided valuable information otherwise missed.
- The questionnaire does not contain a question that establishes if the respondent was successful to qualify for entrance in SANC examination for the R 2175 programme. With correlation statistics it is acknowledged that it will give a better answer to the first research objective.

5.4 Recommendations based on the findings

The following are recommended:

- Recruitment and selection of students is important and the school must have a say in who qualifies for the programme.
- The curriculum should be updated regularly to ensure that only the relevant learning outcomes are included in the syllabus.
- The nursing school should provide the option of additional support for English and computer literacy to students.
- The library service must be reviewed and improved.
- An additional government subsidy will be necessary to effect the previous recommendation.
- Investigations into supplementation of salaries in the form of government bursaries must be investigated. This will limit moonlighting, as this negatively impacts the students' ability to concentrate on learning.

- A mentoring / preceptorship programme should be instituted in the clinical setting to support students in the integration of theory and practice.

- Support services should be made available to students upon a referral basis for when students experience social problems which educators are unable to deal with.

- Pre-entry information and preparation is vital for students to inform them of choices and shape their expectations about the programme.

- Students must be inducted prior to commencing the course regarding course learning material; support services, becoming an autonomous learner, and course and assessment requirements.

5.5 Recommendations for further research

- This study has identified the need to investigate factors that promote or inhibit students' success in qualifying for entrance to the SANC R2175 examinations. The quest to investigate these factors is likely to be an ongoing process within nursing academia. The study therefore provides a platform for future research into a wider population, and to include the clinical staff in such research.

5.6 Conclusion

A variety of factors promoting or inhibiting students' success in qualifying for entrance in SANC examinations surfaced out of the research. It is hoped that the insights gained from this study would help to develop a body of knowledge in the nursing fraternity. The implementation of

recommendations will assist in the improvement of students' achievement. All endeavours would result in an increase in the number of student nurses qualifying for entry to SANC R2175 examination. The success of student nurses would mean that there will be a pool of nurses who could be registered for the bridging course (R683) to relieve the professional nursing shortage in the country. This will ensure that patient care would improve and patient outcomes will be improved.

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APPENDIX: 1

UNIVERSITY of the
WESTERN CAPE

OFFICE OF THE DEAN
DEPARTMENT OF RESEARCH DEVELOPMENT

27 November 2013

To Whom It May Concern

I hereby certify that the Senate Research Committee of the University of the Western Cape approved the methodology and ethics of the following research project by:
Ms N Marepula (School of Nursing)

Research Project:	An investigation into factors promoting or inhibiting success among R2175 pupil nurse.
Registration no:	10/1/7

Any amendments, extension or other modifications to the protocol must be submitted to the Ethics Committee for approval.

The Committee must be informed of any serious adverse event and/or termination of the study.

Ms Patricia Josias
Research Ethics Committee Officer
University of the Western Cape

Private Bag X17, Bellville 7535, South Africa
T: +27 21 959 2988/2918 . F: +27 21 959 3170
E: pjosias@uwc.ac.za
www.uwc.ac.za

APPENDIX: 2

UNIVERSITY OF CAPE TOWN

Health Sciences Faculty
Human Research Ethics Committee
Room E52-24 Groote Schuur Hospital Old Main Building
Observatory 7925
Telephone [021] 406 6626 • **Facsimile** [021] 406 6411
e-mail: shuretta.thomas@uct.ac.za

21 September 2010

HREC REF: 443/2010

Ms NO Marepula
c/o Ms E Kortenbout
Po box 148
Newlands

Dear Ms Marepula

PROJECT TITLE: AN INVESTIGATION INTO FACTORS PROMOTING OR INHIBITING SUCCESS AMONG ENROLLED NURSES (R2175).

Thank you for submitting your study for review to the Faculty of Health Sciences Human Research Ethics Committee.

It is a pleasure to inform you that the Ethics Committee has **formally approved** the above-mentioned study.

Approval is granted for one year till the 30th September 2011.

Please submit an annual progress report if the research continues beyond the approval period. Please submit a brief summary of findings if you complete the study within the approval period so that we can close our file.

Please note that the ongoing ethical conduct of the study remains the responsibility of the principal investigator.

Please quote the REC. REF in all your correspondence.

Yours sincerely

Lesley Henley

PP **PROFESSOR M BLOCKMAN**
CHAIRPERSON, HSF HUMAN ETHICS

S Thomas

APPENDIX: 3

UNIVERSITY OF THE WESTERN CAPE

Private Bag X 17, Bellville 7535, South Africa

Tel: +27 21-9592274, Fax: 27 21-9592679

Email: kjooste@uwc.ac.za

CONSENT FORM

Title of Research Project: Factors that promote or inhibit students' success to qualify for entrance to the South African Nursing Council R2175 final examination

The study has been described to me in language that I understand and I freely and voluntarily agree to participate. My questions about the study have been answered. I understand that my identity will not be disclosed and that I may withdraw from the study without giving a reason at any time and this will not negatively affect me in any way.

Participant's name:

Participant's signature:

Witness:

Date:

Should you have any questions regarding this study or wish to report any problems you have experienced related to the study, please contact the study coordinator:

Student:

N. O. Marepula (2968170).

Telephone: (h) 0216896987 (w) 0214046307

Fax: 0214045112

Email: nmarepul@westerncape.gov.za

APPENDIX: 4

UNIVERSITY OF THE WESTERN CAPE

Private *Bag X 17, Bellville 7535, South Africa*

Tel: +27 21-9592274, Fax: 27 21-9592679

Email: kjooste@uwc.ac.za

INFORMATION SHEET

Dear Participant

I am a Masters student in nursing and health sciences at the University of the Western Cape. I am conducting a research project to investigate the factors that promote or inhibit students' success to qualify for entrance to the South African Nursing Council R2175 final examination at this nursing school.

You are kindly requested to participate by filling in a questionnaire. Your participation will be greatly appreciated as it will divulge these factors and solutions can be made to rectify them. You will be required to complete a questionnaire and will take approximately thirty -five minutes.

The study will be done at the nursing school when you are in block at it will be a once off session. The completed questionnaire will be placed in a locked cabinet for privacy. The questions are related to these factors that the researcher thinks are inhibiting or promoting student nurses succeeding to qualify for SANC examinations. The information is confidential and your name will not appear on the questionnaire. Your participation is voluntary and you are allowed to withdraw at any time. The results will be made available once the research is complete.

Your cooperation is highly appreciated. If you have any questions you can contact the Department directly on these numbers:

Student

N. O. Marepula (2968170).
Telephone: (h) 0216896987 (w) 0214046307
Fax: 0214045112
Email: nmarepul@westerncape.gov.za

Dean of Faculty
Prof Jose Frantz
Faculty of Community and Health Sciences
University of the Western Cape
Private Bag X17
Bellville 7535
Tel: +27 (0) 21 959 2631/2746
Fax: +27 (0) 21 959 2755
Email: jfrantz@uwc.ac.za

Head of School:
Prof Karien Jooste
University of the Western Cape
Private Bag X17
Bellville 7535
021 959 2271
Email: kjooste@uwc.ac.za

APPENDIX: 5

UNIVERSITY OF THE WESTERN CAPE

Private Bag X 17, Bellville 7535, South Africa

Tel: +27 21-9592274, Fax: 27 21-9592679

Email: kjooste@uwc.ac.za

STUDENT QUESTIONNAIRE

Study Title: Factors that promote or inhibit students' success to qualify for entrance to the South African Nursing Council R2175 final examination

Thank you for participating in this study. Please answer the following questions as honestly as possible.

SECTION A: BIOGRAPHIC INFORMATION

Use an "x" to indicate in the box on the right the most appropriate answer

1. What is your age in years?

i) 20 – 25 ☐

ii) 26 – 30 ☐

iii) 31 – 35 ☐

iv) 36 – 40 ☐

v) 41 – 45 ☐

vi) 46 – 51 ☐

vii) 52 and older ☐

2. Marital status

i) Single ☐

ii) Married ☐

iii) Divorced ☐

iv) Widowed ☐

v) Customary marriage ☐

vi) Living together ☐

3. Race

To which of the following race or ethnic groups do you belong?

i) Black ☐
ii) Coloured ☐
iii) White ☐
iv) Indian ☐
v) Ndebele ☐
vi) Sotho ☐
vii) Tsonga ☐
viii) Tswana ☐
ix) Venda ☐
x) Xhosa ☐
xi) Zulu ☐
xii) Other, specify…… ☐

4. Which of the following is your first or home language?

i) Xhosa ☐
ii) Afrikaans ☐
iii) English ☐
iv) Venda ☐
v) Sotho ☐
vi) Setswana ☐
vii) Zulu ☐
viii) Ndebele ☐
ix) Tsonga ☐
x) SiSwati ☐
xi) Speedy ☐
xii) Other, specify……

5. How would you describe your ability to converse in English?

i) Not at all fluent ☐
ii) A little fluent ☐
iii) Fluent ☐

6. What is your preferred language of instruction?

i) English ☐
ii) Xhosa ☐
iii) Afrikaans ☐
iv) Venda ☐
v) Sotho ☐
vi) Setswana ☐
vii) Zulu ☐
viii) Ndebele ☐
ix) Tsonga ☐
x) SiSwati ☐
xi) Speedy ☐
xii) Other, specify.....

7. Which of the following best describe the area and type of residence you live in?

i) Townships ☐
ii) Suburbs ☐
iii) House ☐
iv) Shack in an informal settlement/ squatter camp ☐
v) Shelter ☐
vi) Caravan ☐
vii) Place of safety ☐
viii) Other, specify…….

8. Does your home have electricity?

i) Yes ☐

ii) No ☐

SECTION B: EDUCATIONAL BACKGROUND

9. What is highest level that you passed at school?

i) Completed grade 8 / Standard 6 ☐

ii) Completed grade 9 / Standard 7 ☐

iii) Completed grade 10 / Standard 8 ☐

iv) Completed grade 11 / Standard 9 ☐

v) Completed grade 12 / Standard 10 ☐

vi) Other, specify……..

10. Did you engage in any studies thereafter?

i) Yes ☐

ii) No ☐

11. Did you do upgrading course?

i) Yes ☐

ii) No ☐

SECTION C: FINANCIAL STATUS

12. Income in Rand per month

i) 999-1999 ☐

ii) 2000-3999 ☐

iii) 4000-5999 ☐

iv) 6000-7999 ☐

v) 8000-9000 ☐

vi) 10000 and more ☐

13. Who is supporting the family financially?

i) Spouse ☐

ii) Self ☐

iii) Other, specify…….

14. Did you receive financial assistance from The Health and Welfare Sector Education and Training Authority

i) Yes ☐

ii) No ☐

SECTION D: ACCESS TO MEDIA RESOURCES

15. Indicate whether you have access to each of the following media option by inserting a tick in the box:

i) Library ☐

ii) Internet café ☐

iii) Television set ☐

iv) Radio ☐

v) Other, specify……

16. How often do you go to the library?

i) Every day ☐

ii) 2-6 times a week ☐

iii) Once a week ☐

iv) Once a month ☐

v) Never ☐

17. Which newspaper do you read? You may choose more than one option if necessary.

i) Sunday times ☐

ii) Cape Argus ☐

iii) Voice ☐

iv) Daily Sun ☐

v) Burger ☐

vi) Community newspaper ☐

vii) Cape Times ☐

viii) Other, specify……..

18. How many times per week do you read a daily newspaper?

i) Seven times a week ☐

ii) Five to six times a week ☐

iii) Three to four times a week ☐

iv) One to two times a week ☐

v) Less than once per week ☐

vi) Never ☐

19. What channel do you listen to or watch?

i) SABC1 ☐

ii) SABC 2 ☐

iii) SABC 3 ☐

iv) ETV ☐

SECTION E: LEARNING AND LEARNING STYLES

Choose the statement which best describe your learning style

20. I learn by:

i) Feeling ☐

ii) Doing ☐

iii) Watching ☐

iv) Thinking ☐

21. When I learn:

i) I look at things from different perspectives ☐

ii) I prefer to solve things using trial and error ☐

iii) I like to experiment with new ideas ☐

iv) I prefer practical approach ☐

SECTION F: **SUPPORT, RESOURCES AND MOTIVATION**

Please complete the following table by ticking the number that best indicates your opinion. There are no "right" or "wrong answers", your answers are confidential.

Statements	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
1.1 Support I feel accepted by my peers.					
Teachers help, befriends, trust and shows interest in learners					
My study has caused me financial hardship					
In the wards I am given opportunities to apply theory into practice					
I can rely on my colleagues for assistance if I could need it					
I get enough support from my family					
There is a great deal of cooperation between ward staff and student nurses					
I feel I'm not included in ward activities or made part of the team					
Learning opportunities are made available for students in the wards					
I felt supported in attempts at learning new skills					
I get encouragement, motivation and support from the educators					
I am allowed more independence with increased skills					

1.2 Resources My inexperience with computers negatively impacted on my studying experience					
Textbooks are available in one language only					
There is lack of administration support					
I have access to resources such as libraries or internet					
Bursaries are made available by the employer					
Class room temperature is comfortable					
Supplies and material sufficient					
1.3 Motivation My self- image has improved because of this experience					
I am lacking self- motivation to learn					
I came prepared for the course as I have been waiting to be admitted					
I have vested interest in the course					

APPENDIX: 6

UNIVERSITY OF THE WESTERN CAPE

Private Bag X 17, Bellville 7535, South Africa

Tel: +27 21-9592274, Fax: 27 21-9592679

Email: kjooste@uwc.ac.za

FOCUS GROUP INTERVIEW GUIDE FOR NURSE EDUCATORS

The following was posed to participants to open the focus group discussion:

There is a concern that students are terminated before they are registered to sit for R2175 SANC examinations. What do you think the factors are that inhibit or promote students success at qualifying for entrance to the SANC examination?

The following are examples of probes were used to illicit depth in the discussion:

- Explain
- Elaborate
- Why?
- Why not?
- To what extent?