

**FACTORS THAT MOTIVATE STUDENTS TO SUCCEED AT A
NURSING COLLEGE IN THE WESTERN CAPE**

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ABSTRACT

Factors that motivate students to succeed at a nursing college in the Western Cape

The role of nursing education is to strengthen and develop human values and feelings in nursing students, aiming to make them intellectuals, as well as skilled persons. The nurse educator and nursing institutions are responsible for providing quality education and maintaining high academic standards. However, the standards are threatened due to the nursing students' relatively poor performance over the past few years at the nursing college selected for this study. Despite the reported poor performance, there are success stories that are observed amid daily challenges encountered by the nursing students in this study context.

This study aimed at determining and describing the factors that motivate nursing students to succeed and achieve better learning outcomes in a nursing college in the Western Cape. The Attention, Relevance, Confidence and Satisfaction (ARCS) model was used as a framework to guide the study. A quantitative approach with a cross sectional, descriptive design was followed. The target population consisted of 768 nursing students from the second to the fourth year, who were registered for the nursing qualification in the selected nursing college. Two hundred and fifty-seven (257) participants were randomly sampled, and a self-developed questionnaire was used to collect data. The reliability of the instrument was confirmed using the Cronbach's Alpha test and the final score for the instrument was 0.8 after two questions were omitted. The validity was maintained through the involvement of experts to evaluate whether the content of the instrument measured what was intended. Data analysis was done using the Statistical Package for Social Science (SPSS) Version 22.0. Descriptive statistics were applied to test for frequencies in responses, and the Kruskal-Wallis test was applied to find the statistically significant differences among the groups in the study. Ethics approval from the University of the Western Cape and the participating nursing college was obtained.

Throughout the study, respect for persons, beneficence and justice as ethics principles were maintained. The study revealed that, although most students felt that the topics of their studies were relevant to their lives, specific issues, such as the use of humour in teaching, inadequate academic support and an unsatisfactory learning environment, still prevailed. Based on the above research findings among others, suggestions were drafted by the researcher to increase factors that would motivate nursing students based on the ARCS model to convey improvement in the teaching of nursing students, resulting in their success in their institution, as well as the Western Cape region.

KEYWORDS: Learning, Motivation, Nursing programme, Student nurse, Success.

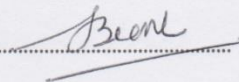


DECLARATION

I declare that this study; 'Factors that motivate students to succeed at a nursing college in the Western Cape' is my own work, and that it has not been submitted for any degree in any University, and that all sources of information used or quoted have been indicated and acknowledged appropriately as complete references.

Beena Abraham

November, 2017

Signed.....

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I thank God for giving me the wisdom, health and an environment conducive for my studies to reach completion, right from the day of my registration.

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DEDICATION

This study is dedicated to my late father, Capt. KM Samuel, who encouraged my dream to become a postgraduate candidate in science education, which has always guided me towards reaching self-actualisation.



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LIST OF ABBREVIATIONS

ARCS:	Attention, Relevance, Confidence and Satisfaction
CI:	Confidence interval
DOH:	Department of Health
HESA:	Higher Education South Africa
SANC:	South African nursing council
SAQA:	South African Qualifications Authority
SDL:	Self-directed learning
SPSS:	Statistical Package for Social Science
WCDOD:	Western Cape Department of Health



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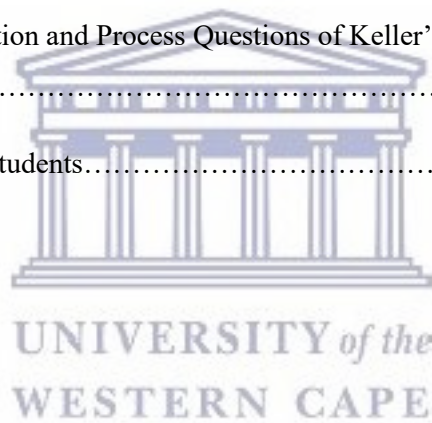
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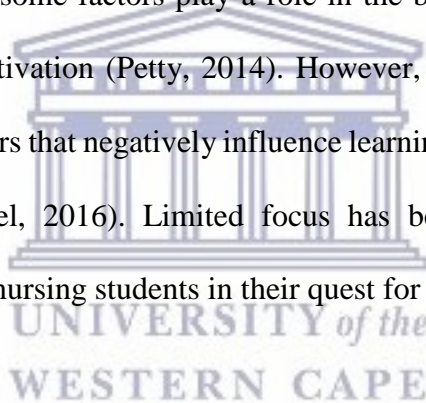


CHAPTER ONE

OVERVIEW OF THE STUDY

1.1 INTRODUCTION

In the increasingly globalised and competent environment the world over, institutions of higher education are facing persisting throughout challenges in students' education (Ramrathan 2013; Govender, 2016). However, nursing education, a discipline in higher education institutions, experiences the same challenges that are responsible for nursing students' struggle with their studies (Rafiee et al., 2014). On the contrary, it is apparent that there are nursing students who still succeed despite being exposed to the same situations, often highlighted as non-conductive to learning. This implies that some factors play a role in the better achievement of learning outcomes often driven by motivation (Petty, 2014). However, over time, most studies have focused on and identified factors that negatively influence learning in nursing colleges in South Africa (Green, 2007; Wentzel, 2016). Limited focus has been directed towards factors contributing to the success of nursing students in their quest for learning.



This study aimed to determine the factors that motivate students' success at a nursing college in the Western Cape. Identifying factors that play a role in the students' success could help teachers facilitate their teaching differently and possibly improve the motivation of those experiencing challenges in their learning process.

In this chapter, the background to the study and problem statement, the aim and objectives, the significance of the study, the theoretical framework, an overview of the adopted research design and methods and how the researcher complied with ethical issues are briefly discussed.

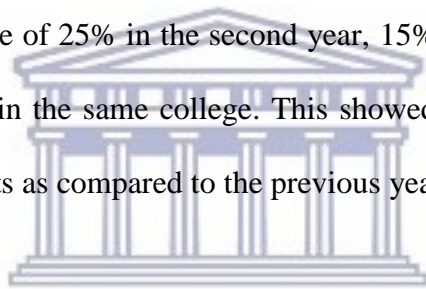
1.2 BACKGROUND TO THE STUDY

Nursing education is an acquisition of a body of knowledge based on human science, scientific principle, care of human health and attainment of skills (Spartanmed, 2017). Nursing education is designed to educate and train students, to become more competent as qualified professional nurses (Wang, Whitehead & Bayes, 2016). The nursing students come from diverse cultures and backgrounds, hold different learning expectations, different intellectual skills, different types and levels of motivation and different interests (Clary-Muronda, 2015). As a result, the schools of nursing and the teachers have a responsibility for developing and finding strategies to deal with the factors affecting learning and the performance of students to facilitate success.

No doubt, improving nursing students' learning and retention is a persistent and complex issue associated with diminished student support particularly during experiential learning. This is in part due to the high workload on those who are expected to take on the teaching role in practice environments because of the global nursing shortage (Schrum, 2017). The discourse around shortages of nurses in South Africa and plans on how to mitigate this challenge could be traced back to a report by Wildschut and Mqgolozana (2008). The report highlighted the Department of Health's (DoH) national human resources for health planning framework of 2006. In the same report, the low production of different categories of nurses indicates the challenges that the health system would be faced with in future if adequate corrective measures are not taken. This leads to the expectation that nursing education institutions should increase their student intake to meet the skills shortage.

In response to skills shortage challenge, the Western Cape Department of Health's (WCDOH) Strategic Plan targeted to train 542 students in 2009/10 in a Western Cape nursing college. Thus, 350 bursaries per year were issued to first-year nursing students by the WCDOH.

However, the increase in student intake did not translate into an equal number of graduates. Similar to national trends, throughputs have not been satisfactory and the different reasons for the failure rate have been vastly reported (Roos, 2014). The trends reported in a study about nursing students' performance by Green (2007), where a 25% failure rate among the 2003-2007 graduating students in a nursing college in the Western Cape remains relatively the same. From the 2012 college throughput report, the situation seems to have worsened. Although 91.78% of students passed in the second year, 40% of students failed in the third year with a subsequent 30% failure rate in the fourth year of the 2011-2012 graduating cohort (WCCN statistics, 2012). The number of graduating students was affected at the end of the fourth year of their studies showing a decrease in the throughput rates. However, based on the WCCN Statistics of 2015, a failure rate of 25% in the second year, 15% in the third year and 25% in the fourth year was recorded in the same college. This showed a slight improvement in the overall performance of students as compared to the previous years.



The researcher, as a nursing teacher, has noted that there are students who continuously succeed despite the failure rates, and whose motivational drive can be used as lessons to improve the throughput rates. In this study, success in learning refers to the consistent achievement of a pass mark throughout the nursing programme leading to students completing the programme in the prescribed academic timeframe. Numerous factors such as age, gender, race, socio-economic status and academic support have been found to be accountable for the success of students in their learning across different sectors of the communities and in different academic programmes including nursing (Akessa & Dhufera, 2015). However, motivation, be it intrinsic or extrinsic, was observed to be a common theme in many of the studies that focused on students' success in learning (Akessa & Dhufera, 2015; Wood, Hilton & Hicks, 2014).

Motivation is “a set of reasons that underlie behaviour that is characterised by willingness and volition; and involves a constellation of closely related beliefs, perceptions, values, interests, and actions” (Lai, 2011). Generally speaking, motivation can be defined as something that explains the direction and magnitude of behaviour, or a phenomenon that explains what goals people choose to pursue and how actively or intensely they pursue them (Keller, 1979).

Motivation is also reported to be two thronged, implying that it originates from either internal (intrinsic) or external (extrinsic) sources (Akessa & Dhufera, 2015; Gaber & Moustafa, 2015; Wood, Hilton & Hicks, 2014). Intrinsic motivation is the desire to achieve set goals because one wants to and derives pleasure from achieving the set goal, and sees the worth in doing so. In learning, this type of motivation resides within the learner. Students who have a positive attitude to learning attain great pride and satisfaction in doing tasks well (Akessa & Dhufera, 2015). Consequently, they gain a valuable sense of competence, which motivates them to invest further efforts (Keller, 1979). This means that students must have the right attitude, ability, access, interest and value to education for them to demonstrate intrinsic motivation. According to Akessa and Dhufera (2015), students who are goal-oriented, create a better niche for themselves in nursing education.

In contrast, institutions can also motivate students to remain motivated, and this is referred to as an extrinsic form of motivation (Petty, 2014). According to Gaber and Moustafa (2015), extrinsic motivation in learning is the practice of providing incentives which boost, inspire, encourage and stimulate students to perform the desired behaviour to attain the desired goal. It is seen as a desire to achieve a goal, not for the pleasure of the goal itself but the rewards that are inter-linked to it. It is based on receiving rewards, for example grades, points, praise and expectations, which are all external motivating factors (Bastable, 2016). External incentives

can include cultural and family expectations, job prospects or goals that learning can help achieve. Suffice to note that both forms of motivation are essential to the success of students in the nursing programme.

According to Williams and Williams (2011), there are five components for improving students' motivation. These are; student, teacher, content, process or method and environment. The students need to be intrinsically motivated to learn and the teacher needs to provide extrinsic motivation through support and rewards. Also, the content needs to be such that the students desire it and the methods used to present the content are acceptable to the students. Further, the environment must be conducive to learning (Lagergren & Holmberg, 2017). Therefore, the importance of motivation in the success of students' learning cannot be under-emphasised. Hence, it is imperative to understand a comprehensive array of contributors within a specific context, in this case, a nursing college in the Western Cape. Following Williams and Williams' (2011) five components, the students become essential players in clarifying the role of motivation in achieving better learning outcomes, hence acquiring information from them on the factors that motivate them to succeed in their learning is imperative.

1.3 PROBLEM STATEMENT

The poor performance of nursing students is a concern for health services as it impacts on the much-needed numbers of professional nurses to curb the current shortage. A high failure rate at a college in the Western Cape has been documented over the years with factors such as language proficiency, large classes and boring teaching strategies cited as contributors to poor academic performance (Roos, 2014; Julius, 2017). Despite the failure rate and challenges presented, there are students within the same setting that still succeed and achieve their qualifications within the prescribed academic learning period.

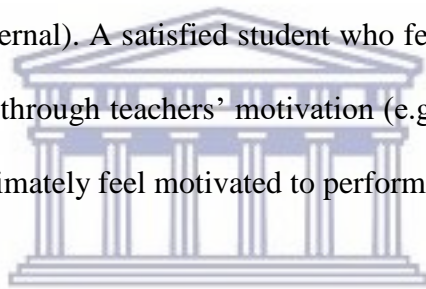
Many studies such as Roos (2014); Wood, Hilton and Hicks (2014), relate success to motivation. Therefore, a conclusion can be drawn that students who succeed are highly motivated. The question that the researchers need to pose is; what are the factors that make a percentage of students to succeed even when faced with the same situations that contribute to others' failure? With this question in mind, the researcher sought information relating to the phenomenon in the study setting, but none could be found. There was a dearth of information relating to students' success and factors that motivated them to succeed hence the conception of this study. The researcher assumes that understanding these motivating factors will contribute to the improvement of strategies aimed at increasing the throughput rates in the nursing college, while corrective measures to deal with the identified impediments are established.

1.4 THEORETICAL FRAMEWORK

A theoretical framework is the overall conceptual underpinning of the study, which is seen as a conceptual rationale (Polit & Beck, 2012). The theoretical framework that was adopted in this study is Keller's ARCS Model (Attention, Relevance, Confidence and Satisfaction) focusing particularly on the categories that drive motivation (Keller, 1984).

This model focuses on the essence of human motivation and volition and further explains that when looking to improve students' motivation during teaching and learning, strategies that drive the attention, relevance, confidence and satisfaction domain of the learner should be put in place. Attention refers to the capturing of students' interest, leading to them developing a sense of curiosity to learn. This implies that if students' interest is maintained and they are exposed to the desirable stimulants in their learning environment, such as visual aids, humour and group activities, they will develop motivation to learning. Relevance in students implies inclusion of learning strategies and materials intended to assist the students in meeting of their

personal goals which results in them developing a positive attitude to learning. In addition, the students should see the learning material's relevance in their life so that they can identify with and make association to their life experiences. Also, if the learning content taught to nursing students holds relevance to their life and prospective career by, for example, incorporating real-life applications and examples, they are more inclined to perform better academically. Confidence refers to helping students believe or feel that they will succeed and can control their success. Furthermore, a confident student who is encouraged and reassured is expected to perform better. In nursing education, a highly skill-oriented programme, and the attempts by teachers to remove fears and anxieties in nursing students go a long way in improving their overall confidence. Finally, satisfaction entails reinforcing students' accomplishments with rewards (both internal and external). A satisfied student who feels a sense of contentment by achieving their learning goals through teachers' motivation (e.g. through praise and rewards) and academic support, will ultimately feel motivated to perform better academically.



The ARCS model is a problem-solving approach to the design of learning environments intended to stimulate and sustain students' motivation (Keller, 2010). The application of the model to this study forms the basis of the researcher's assumptions that if all the ARCS constructs are adequately achieved in the nursing college under study, then the students will be motivated to succeed and consequently, the throughput rate of the nursing college will improve. Hence, it is important to continually assess if students find the teaching strategies in the nursing programme able to maintain their attention and is relevant to their life and future. Furthermore, the strategies of this model highlight the importance of assessing the students 'confidence in themselves and extrinsic factors that enhances their confidence as well as their satisfaction with their learning experiences and their leaning environment. The researcher beliefs that if these measures are confirmed as important in motivating students thus ensuring success, then

institutions should continuously develop strategies that will ensure that students 'confidence and satisfaction is ensured.

In this study, the model was used as a framework to develop specific objectives that contributed to the achievement of the study's aim. A detailed discussion about the theoretical framework is undertaken in Chapter 2.

1.5 STUDY AIM

The aim of the study was to describe the factors that motivate students to succeed at a nursing college in the Western Cape.

1.6 RESEARCH QUESTION

To achieve the study aim, the following research question was posed:

What are the factors that motivate nursing students to succeed at a nursing college in the Western Cape? The specific sub-questions guided by the theoretical framework adopted in this study were phrased as follows:

1. What are the motivating factors that stimulate and maintain the students' attention during learning at a college in the Western Cape?
2. What are the factors that enhances the programme's relevance to motivate the nursing students to succeed in their learning?
3. How confident are the nursing students in their capacity to achieve their learning goals?
4. How satisfied are nursing students about their learning?

1.7 STUDY OBJECTIVES

1. To determine the motivating factors that stimulate and maintain the students' attention during learning at a college in the Western Cape.

2. To identify factors that enhance the relevance of the programme to motivate nursing students to succeed.
3. To describe the confidence of nursing students in achieving their learning goals and factors that enhance confidence.
4. To describe the satisfaction of nursing students in their learning and factors that enhance satisfaction.

1.8 SIGNIFICANCE OF THE STUDY

The training and development of nursing students is the responsibility of the nursing institutions. This study assumes a positive approach in looking for solutions to mitigate the challenge of poor throughput thus have the potential to be motivating to both teachers and students in their teaching and learning role. The model recommends strategies that enhances teaching and learning that if clearly understood, could contribute in the process of increasing motivation among students consequently, success in learning. Importantly, the study measures the students' confidence and satisfaction and highlight the factors that positively impact the two variables of which, if known, it could contribute to the development of supportive strategies to ensure motivation and success in learning. The outcome could be used as a benchmark to improve the quality of the curriculum regarding content relevance and appropriate teaching approaches. As the study was only conducted in one nursing college, the results could be used as baseline data for research on the same topic in future larger-scale studies.

1.9 OPERATIONAL DEFINITIONS

- **Student**

A student is a person studying at a university or institution of higher education, denoting someone who is studying to enter a particular profession. A student is someone guided towards

a singular goal, designated as an anticipated outcome, attuned to the standards of knowledge of the curriculum (Ljubljana, 2015). In this study, a student refers to a person who is studying at a nursing college in the Western Cape to enter the nursing profession.

- **Student Nurse**

A student nurse is a person who has been registered as such with the South African Nursing Council (SANC) and is receiving education and training at an accredited nursing school (South African Nursing Council, 2016). In this study, a nursing student is an individual who is registered for a nursing programme at a nursing college in the Western Cape and has also been registered with SANC as a student.

- **Nursing programme**

A nursing programme is a purposeful and structured set of learning experiences that leads to registration in the category of a nurse. The R425 programme consists of regulations relating to the approval of and the minimum requirements for the education and training of a nurse (General, Psychiatric and Community) and midwife leading to registration (SANC, 2016).

- **Motivation**

Motivation is “a set of reasons that underlie behaviour that is characterised by willingness and volition; and involves a constellation of closely related beliefs, perceptions, values, interests, and actions” (Lai, 2011). In this study, motivation encompasses all the reasoning, attitudes and behaviours, as well as extrinsic factors such as the influence of teachers and the nursing college in the Western Cape, that the students adopt and embrace to succeed in their learning.

- **Success**

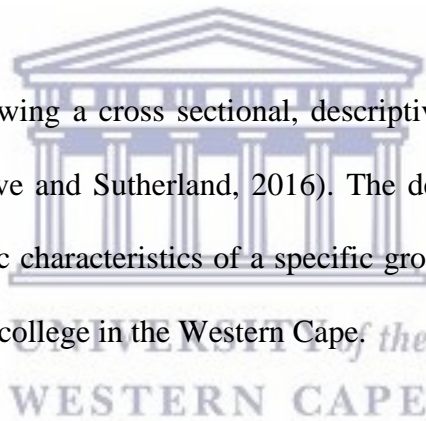
Success refers to the achievement of desired aims (Oxford Dictionary, 2016). In this study, success refers to the consistent achievement of a pass mark (>50%) by a nursing student, consequently completing education and training in the nursing programme within the prescribed academic duration of four years.

1.10 RESEARCH DESIGN AND METHODS

This section briefly discusses the research design that was followed and the procedures and techniques used to conduct this study. A detailed exposition of the research design and methods will follow in Chapter 3.

1.10.1 Research design

A quantitative approach following a cross sectional, descriptive design was used (Ingham-Broomfield, 2014; Gray, Grove and Sutherland, 2016). The descriptive design was used to obtain a description of specific characteristics of a specific group of individuals who, in this case, are students in a nursing college in the Western Cape.



1.10.2 Research methods

A brief discussion of the research methods, which include the population and sampling, data collection and analysis procedures, the measures employed to ensure validity and reliability of the study as well as the ethical measures that were adhered to, is presented below. A detailed discussion is undertaken in Chapter 3.

1.10.2.1 Population

The population is defined as the entire set of individuals or objects that have common characteristics (Polit & Beck, 2012). The target population, in this study, were nursing students in their second to fourth year of study who were registered for the R425 programme, and have

consistently succeeded from their first year of registration in a nursing college in the Western Cape. The total population (N) consisted of 768 students wherein 231 were in their second year of study, 292 in the third year and 245 in the fourth year.

1.10.2.2 Sampling

Sampling is the process of selecting a portion of the population to represent the entire population (Polit & Beck, 2012). Stratified random sampling method (Grove, Burns & Gray, 2014) was used in this study. Considering a 5% margin of error and a 95% confidence level, a sample size (n) of 257 was calculated using the Raosoft sample size calculator (Grove, Burns & Gray, 2014). The sample size was determined using the formula for the single population proportion.

1.10.2.3 Pilot study

A pilot study is a small-scale research version done in preparation for a major study (Polit & Beck, 2012). The pilot study was done to check for consistency and missing values in the instrument as well as to establish the average time it takes to complete the questionnaire. Nine students were selected (three from each year level), and their answers were not included as part of the final study results.

1.10.2.4 Data collection

Data collection is the process whereby the researcher collects information from existing records or doing primary observations, conducting interviews and taking photographs (Mayan, 2016; Polit & Beck, 2012). The researcher formulated her own questionnaire in line with the study's objectives, reviewed literature and the theoretical framework adapted to guide the study. The application of the theoretical framework (ARCS) to instruments such as questionnaires and games has been applied in other studies, such as those of Karakis, Karamente and Okçu (2016)

and Bates (2015). However, none such applications were deemed relevant to this specific context.

The researcher emailed and telephonically informed the students about the research and allowed the students who volunteered to participate to choose the date and time after lectures to answer the questionnaire at the college. The year plan of the college was reviewed in order to check the availability of the 2nd to 4th year students. The lecturers were contacted, and they allocated 30 minutes after their lectures to allow students participation. The questionnaire was directly administered to the participants by the researcher and her assistants and the process lasted between 20 to 30 minutes per student.

1.10.2.5 Data analysis

The data collected were coded, entered and analysed using the computer software called Statistical Package for Social Sciences (SPSS version 22.0). Descriptive measures, such as percentages and averages, as well as visual presentations in the form of frequency tables and graphs were derived to show the occurrence of different observations as investigated in the study (Mayan, 2016). Histograms were also used to present the frequency distribution data. The Kruskal-Wallis test was applied to find the statistically significant difference among the groups regarding the factors that motivated them and contributed to their academic success.

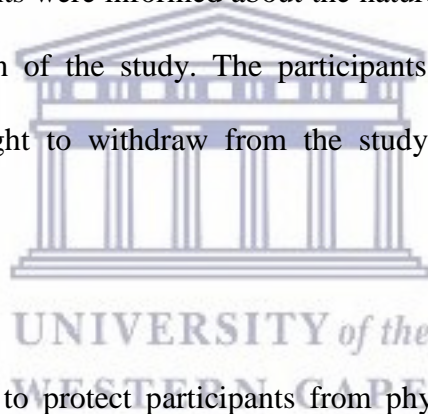
1.10.3 Validity and reliability

Validity is a quality criterion which refers to the degree to which an instrument measures what it is intended to measure (Mayan, 2016; Polit & Beck, 2012). The study's supervisor, peers and an expert in quantitative research scrutinised the instrument to ensure face and content validity. The content validity tests ensured that each objective had adequate items to assist the researcher to answer the research question. The reliability test of the instruments was done using

Cronbach's Alpha, and this was used to ensure the repeatability or reproducibility of the results. A pilot study was also conducted to ensure reliability.

1.10.4 Ethics

Research ethics is concerned with the responsibility of the researchers, to be honest and respectful to all individuals who are affected by their research studies or the reports of the study's results. The study must be presented honestly without distortion, and the rights of the participants need to be protected (Gravetter & Farzano, 2012). Written consent was obtained from the research ethics committee of the University of the Western Cape before the study commenced. Permission was requested from the director of the nursing college where the study was conducted. The participants were informed about the nature of the research, the type and use of data and the intention of the study. The participants were provided with a clear explanation regarding the right to withdraw from the study with no penalties, and that participation was voluntary.



As the researcher is obliged to protect participants from physical or psychological harm, extraordinary measures were put in place to assist students who might feel vulnerable. However, none of the participants needed the services thus they were not utilised. The questionnaires did not ask for names, telephone numbers or residential addresses of the participants to protect their identity. Numerical codes were used for questionnaire identification, and the completed questionnaires were kept safe in a locked cupboard with the researcher being the only person with access to them. However, all the collected data sets (with no names) were made available to the supervisor and the statistician as they were directly involved with data analysis. The privacy of the participants was protected throughout and after the study.

1.11 STUDY LAYOUT

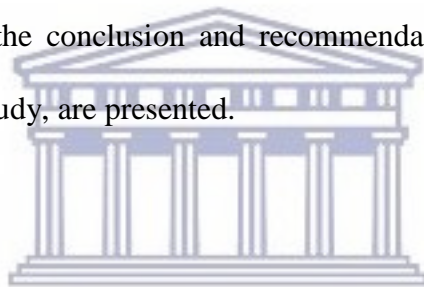
Chapter 1: In this chapter, the scientific foundation of the study was introduced with a brief description of the background, problem statement, research questions, study aims and objectives and a brief overview of the research methodology.

Chapter 2: A literature review of various factors that motivate students to succeed and the detailed description of the theoretical framework was discussed.

Chapter 3: In this chapter, the research methodology applied during this research study is discussed in detail.

Chapter 4: In this chapter, the data analysis, interpretation and discussion of the findings are presented.

Chapter 5: In this chapter, the conclusion and recommendations, based on the scientific evidence obtained from this study, are presented.



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1.12 SUMMARY

This chapter introduced the study's topic, problem statement and objectives. It further explained the significance of the study, the methodology that was followed and the ethical principles that were adhered to during the course of the study. The purpose of this chapter was to give an overview of the study. A detailed discussion of the literature and the methodology follows in the subsequent sections.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

Literature review takes into account a critical analysis of the relationship between different research works and relating this research to one's work (Helen, 2014). According to Burns and Grove (2016), the purpose of the literature review is to obtain a broad background and understanding of what is already known about a particular problem to bridge the knowledge gap that exists. Since the objective of this study was to determine and describe the factors that motivate students to succeed at a nursing college in the Western Cape, a detailed review was undertaken in this chapter to set the tone for this study.

To acquire comprehensive knowledge about the topic and to enable the researcher to understand critical issues about the core variables of this topic, a comprehensive search of the literature was done. This was through search engines and databases such as EBSCOhost, CINAHL, Nursing Journal Databases, ScienceDirect and Google Scholar. Various other hardcover sources such as books, and governmental reports were used to obtain research material.

The literature review focused on a range of aspects, starting from exploring the status of learning in higher education which the researcher saw as a bedrock for locating nursing education and its challenges in higher education. In addition, the researcher focused on the status of learning in higher education, the challenges in nursing education and training, factors contributing to academic success and the theoretical framework so as to comprehensively give meaning to the study and its significance.

2.2 THE STATUS OF LEARNING IN HIGHER EDUCATION

Since nursing is considered a higher education programme, it is essential to know about the status of higher education both nationally and globally. Most importantly, because this study focuses on the motivation factors that lead students to academic success, it is imperative to gain a comprehensive idea of the status of higher education which depicts students' successes and failures, influenced by their level of motivation.

Institutions of higher education around the world are facing significant challenges to ensure that students achieve quality outcomes in an increasingly globalised and competitive environment (Daniel, 2014). By international criteria, higher education institutions and enrolments are least advanced in the African region despite Africa being the continent with the oldest university in the world (Mohamedbhai, 2014). Nigeria, Sudan, South Africa, and Egypt, individually, have 90, 48, 23, and 41 universities respectively, and each country has numerous additional post-secondary institutions (Teferra & Altbach, 2004). The continent cannot boast of a better quality higher education like their continental counterparts such as Europe, Asia and America. However, some countries on the continent, such as South Africa, have strong, comprehensive and diverse academic systems, as attested by the Higher Education South Africa (HESA) in their higher education in context report (Fongwa, 2012).

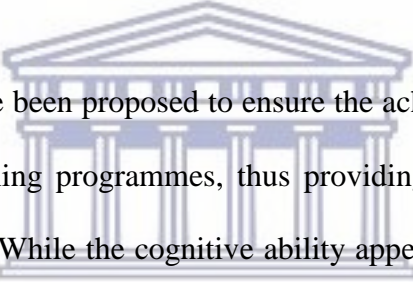
Nonetheless, higher education in South Africa is facing complex challenges at present. According to a report by Regenesys (2013), only 50% of the students achieve education qualifications from higher education institutions. The report further states that most of the students from poor backgrounds are faced with financial challenges, and are ill prepared to cope with the challenges of higher education, resulting in many dropout cases. Hence, the throughput rate is of grave concern. Fifty-five per cent (55%) of black students who enter

institutions of higher learning never graduate (Department of Higher Education and Training, 2015). Additionally, the lack of qualified teachers in higher education, of which approximately 40% of the teachers hold a PhD degree (Regenesys, 2013), is of grave concern. Judging by these presented facts, it is essential to look at the challenges that nursing education and training faces, as well as the outcomes pertaining to the status of higher education, in achieving academic success.

2.3 THE CHALLENGES IN NURSING EDUCATION AND TRAINING

Several number of research reports brought to light the challenges that impede students' success in higher education both nationally and internationally (Khan, Ahamad & Kousar, 2013; Hasan & Khalid, 2014). To apply these reports to the study at hand, it is essential explore the challenges faced by modern-day nursing education and training. In the 21st century, the challenges that nursing practice faces are mostly driven by the growing population of hospitalised patients, and rapid advances in medical knowledge and technology, which is not in proportion to the number of trained nurses or those entering the profession (Li, Nie & Li, 2014). The world is experiencing a dramatic decrease in nurses, even though enormous amounts of resources are devoted to higher educational systems (Neubauer, 2010). One of the causes of this shortage is the emigration of nurses to wealthier countries, thus leaving their country with inadequate health care human resources (Li, Nie & Li, 2014) which eventually impacts on the quality of care. On the other hand, a marked decrease in the number of nurse educators is observed. The phenomenon is attributed to the ageing population of nurse educators who are now retiring and an inadequate training of new cadres in this speciality. This shortage of educators has a direct impact on the quality of training in nursing education institutions and an indirect impact on nursing practice in general (Gürsoy & Korkmaz, 2015).

Due to the flaws in the pre-1994 system in South Africa, several acts such as the Higher Education Act No. 101 of 1997, the South African Qualifications Authority (SAQA) Act No. 58 of 1995 and the Nursing Act No. 33 of 2005 as amended, have been implemented to strengthen the nursing educational system. These acts guide the education programmes in nursing schools to fill identified voids, such as a decrease in the size of the different categories of nurses in the country as well as skills aligned to the burden of diseases (Higher Education Act, 1997). The implication is that nursing schools in institutions of higher learning must keep up with the practices, innovations and other changes in the healthcare delivery system. However, the evaluation of nursing programmes and identification of factors affecting the nursing students seem to be a challenging task.



Different remedial actions have been proposed to ensure the achievement of goals directed at the production of quality training programmes, thus providing excellent and appropriately skilled nurses (Seekoe, 2014). While the cognitive ability appears to be the best predictor of academic success in nursing theory; attitude, personality, language, motivation, culture and self-confidence also play essential roles. Motivational strategies, peer tutoring and teaching of self-management skills as tools to improve academic success, are crucial in the lives of nursing students due to their packed curriculum (Krautter, Andreesen, Köhl-Hackert et al., 2014). Hence, nurse educators need to develop educational approaches that will be supportive of the nursing students. Overall, policymakers need to provide resources for training nursing students, such as the provision of funding to promote and retain racial and ethnic diversity in nursing students. Also, there is a dire need to recruit and retain clinical instructors and nurse educators, provide training on new teaching approaches and funding for infrastructure that is modern and acceptable to the global technology-driven environment (Evans, 2013).

Previous research proves that students' socio-economic status, funding, work ethic, class attendance, cognitive style, learning strategies and above all, their satisfaction in their course motivates them to learn better (Ramrathan, 2013). However, it is important for nursing educators to continually seek strategies that could motivate the students to learn and succeed regardless of some impediments in their lives and learning environment, that might be out of their control. The following section aims to give a brief overview of factors that pave the way towards attaining academic success in students.

2.4 FACTORS CONTRIBUTING TO ACADEMIC SUCCESS

Different factors can contribute to academic success, such as quality processes, motivation, learning environment and goal setting, to mention a few. From the education system's side, the selection criteria, teaching methodology, the designing of activities and academic skills provided or exercised by the college are seen to significantly influence academic success (Hasan & Khalid, 2014; Gürsoy & Korkmaz, 2015). On the other hand, nursing students' academic skills, commitment to their studies and motivation seems to help them succeed academically (Miller, Catherine, Stickler & Wang, 2015). However, there are key factors that most researchers in the field of motivation in learning seems to agree on, if success in learning is to be achieved. These include; quality enhancement in teaching, and intrinsic and extrinsic motivation.

2.4.1 Quality enhancement in teaching

If one wants to obtain a high-quality product, it is imperative that it undergoes a series of high-quality processing. Quality enhancement refers to the continuing improvement of teaching in the institution, which goes beyond the teaching of individual teachers, but includes department and institutional responsibility. This include the support of all members of a delivery team (Biggs, 2011). It is believed that higher education has become part of a global shift to a new

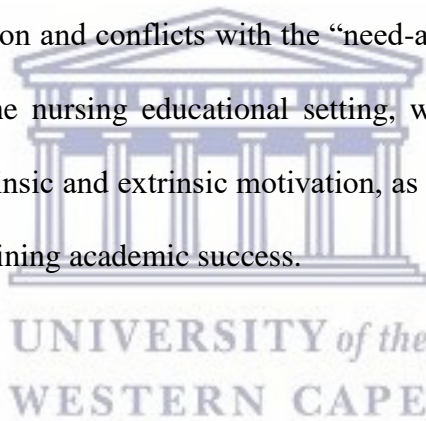
way of creating and using knowledge, focusing on solving problems, being sensitive to students' needs, striving for quantity as well as quality (Entwistle & Ramsden, 2015). This implies that it is essential to ensure that all the processes followed in the education and training of nursing students are of high quality if success is to be attained.

2.4.2 Motivation as a tool for learning

Motivation is defined as an internal state that arouses, directs and sustains human behaviour and as a current or recurrent desire to acquire knowledge (Bastable, 2016). According to Keller (2010), motivation also refers to “humans’ desire, what they choose to do and commit to doing”. Motivation determines the direction and magnitude of human behaviour, or what goals people choose to pursue and how actively or intensely they pursue them (Keller, 2010). Motivation as a tool to facilitate success, has been highlighted in many studies (Al-Ghamdi, 2014; Bastable, 2016), and both intrinsic and extrinsic motivation plays a significant role in students’ success. The efforts the students put in their studies and the general level of motivation a student has, influences their academic achievement (Cerna & Pavliushchenko, 2015; Valle et al., 2016).

As reported, highly motivated students have better learning outcomes thus they succeed in the achievement of their set goals (Al-Ghamdi, 2014). These students always seem to be able to rise above the challenges they come across (Wood, Hilton & Hicks, 2014). On the other hand, parental and teacher encouragement displayed towards their children and students have a significant positive impact on their motivation level and create a positive growth for academic success. A study by Shikha and Praveen (2012), reveals that self-confidence and academic achievement are positively related to students’ intelligence. A confident attitude, belief and faith in oneself, make students to create qualities for success in themselves. These attributes are fostered through motivation.

Lack of motivation reduces the students' willingness to learn and thus affects their academic performance (Friedman, 2010; Cox & Maher, 2010). This is applicable in the classroom and clinical nursing environment. Hence, motivation as a tool for learning is an important concept that needs to be explored deeper in nursing education. According to Simmons and Page (2010), engaging students' learning requires consistent, positive, emotional teacher-student relationship and positive interactions necessary for learning. This is because instinct motivates a student, as well as drive, need, goal and social pressure. When the students see themselves as capable and attribute failure to lack of effort, they focus on strategies for succeeding. However, repeated failure reduces motivation, and in a failure-conscious student, the threat of failure in itself is a deterrent to motivation and conflicts with the "need-arousal" of motivation (Harlen & Deakin-Crick, 2010). In the nursing educational setting, which includes classroom and clinical settings, students' intrinsic and extrinsic motivation, as well as teachers' motivational strategies are important in attaining academic success.



- **Intrinsic motivation**

Motivation can be **intrinsic**, which is defined as a desire to obtain knowledge from within (Lai, 2011). According to Akessa and Dhufera (2015), intrinsic learning resides within the learner. It also motivates the students by increasing curiosity in the task undertaken, satisfaction and sense of accomplishment in learning. Students who have a positive attitude to learning attain great pride and satisfaction in performing tasks well. They gain a valuable sense of competence, which motivates them to invest further efforts. This means that, for example, the student must have the correct attitude, ability, access, interest and value to education. Students who are goal-oriented, therefore create a better niche for themselves in nursing education (Cerasoli & Ford, 2014).

Students can have increased motivation when they feel a sense of autonomy in the learning process (Orsini, Evans & Jerez, 2015). If students can identify with role models, such as guest speakers, fellow students and other peers, they may be more likely to see the relevance of the subject matter. Additionally, students can learn by seeing peers succeed in a task and get motivated (Al-Ghamdi, 2014). The personal ambition of the student to attain achievement, succeed in life and build a future, which can bring wealth, prestige and power, can motivate the student to learn (Wood, Hilton & Hicks, 2011). Students who set standards of their own and issue a challenge to themselves progress further and succeed.

- **Extrinsic motivation**

In contrast, **extrinsic** motivation is based on receiving rewards such as grades, points, praise and expectations, which are all external motivating factors (Lai, 2011). External incentives can include cultural and family expectations, job prospects or goals that learning can help achieve. In the classroom, prestige, esteem, recognition and family approval can be as important as good grades (Bastable, 2016). This is very common among young students who depend more on teachers' instructions to indicate what should be learnt and how it should be learnt. Teachers' emotions are significant in student motivation and cognition as they affect teaching effectiveness (Meyer & Turner, 2006). Extrinsic motivation is reinforced by external factors such as the need to acquire a qualification or secure a job (Bastable, 2016). Cerasoli, Nicklin and Ford (2014) support this statement by stating that the opportunity to earn a living and advance in a career, by observing and accomplishing the nursing role, is an external motivational factor. Lai (2011) states that extrinsic motivation is particularly observed in younger students who are more reliant on their instructor to specify what should be learnt and how.

Nonetheless, for students to achieve success in their learning journey, both intrinsic and extrinsic motivations must be an acquired. However, there are strategies that both students and

teachers must put in place and encouraged to ensure that motivation is not only stimulated but is maintained. These include; goals setting, self-directed learning and a conducive learning environment.

2.4.2.1 Goal setting in learning

A goal is something one cares about, which increases one's motivation and makes it more likely to achieve. Goals are powerful, precise statements about one's intentions. They are motivated by plans, dreams and desires, powered by discipline and maintained through commitment (Dobronyi, Oreopoulos & Petronijevic, 2017). Goals can be lifetime goals, which are broad or short-term or smaller (Hofstra Education, 2013). Goal setting is one of the effective ways to increase success. Students must always think positively and need to have a strategy and action plan on how to make it happen (Hofstra Education, 2013). The task and the ability of a student to set a goal imply developing a new skill, trying to understand work, improving competence consequently leading to a better standard of performance, which is needed in nursing education and training. To assess the achievement of goals, it is important to consider the students' personal goal orientation, as well as classroom or school goal structures.

Goal setting is a robust process of thinking about one's ideal future and motivating oneself to turn one's vision into reality. In this case, goal setting helps the student to choose where they want to go in life, and precisely what to achieve. Setting goals gives the students a long-term vision and short-term motivation. Since motivation is the combination of desire, value and beliefs that drive a person to act, the students ultimately control their values and beliefs to attain a goal, which influences their motivation (Daniel, 2014). For this reason, the students are more likely to be motivated to attain their goal. To be motivated, values, beliefs and desires need to be identified, so that students can recognise their strengths and weaknesses. This information can be utilised to establish realistic goals.

By setting strong and clear goals, the goals become achievable, and this then leads to increased self-confidence. Therefore, since goal setting also increases self-confidence, it affects academic success (Shikha & Praveen, 2012). An increase in self-confidence helps to develop innate qualities of self-worthiness and competence through re-enforcement. Goal setting is an essential part of succeeding in a nursing college. However, the goals should be set high enough to be challenging, but reasonable enough to achieve. Students need to set priorities, time and make a commitment to complete tasks (Dobronyi, Oreopoulos & Petronijevic, 2017).

2.4.2.2 Self-direction and learning

The concept of Self-Directed Learning (SDL) originated in the field of adult education (Sawatsky et al., 2017; Boyer et al., 2014). Due to the benefits of learning outcomes in schools and colleges, corporate settings strongly emphasise the importance of self-directed learning, including its value as required in skills needed for work in the 21st century (Sawatsky et al., 2017). Self-directed students are ready to learn, they are autonomous, organised, accept constructive feedback and engage in self-reflection. These attributes are essential in nursing education and training because of the large workload that is associated with the nursing programmes. This approach teaches the students to set study goals, set time for activities and self-evaluate their learning (Grover & Miller, 2014). The ability to make some decisions on one's own and willingness to take responsibility are virtues needed in nursing education (Grover & Miller, 2014).

Self-directed learning is crucial to the professional development of nursing students, which enables them to expand the knowledge and enhance the quality of their practice. It is associated with increased curiosity, critical thinking, quality of understanding, retention and recall, competence and confidence (Wang-qin & Hong-Lin, 2014). In many countries, improving

students' readiness for self-directed learning has thus gained increasing recognition as being part of the essential goals of the nursing education programmes. Self-directed learning is autonomous and decisive. In Taiwan, encouraging nursing students to become self-directed learners is highlighted as an essential educational goal (Lin, 2007). A study by Chou and Chen (2008), showed that self-directed learning was a substantial factor for predicting success in learning.

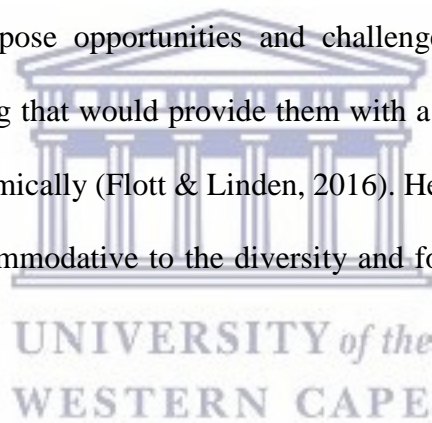
Continuous technological development contributes to a unique continuously evolving culture which requires skills and abilities suitable to the 21st-century teaching and learning (Francis & Flanigan, 2012). The students of the 21st century are deemed to be strong-willed, emotionally stable, independent, strong, sensitive, which are positively correlated with SDL (Herman, 2012). This implies that the SDL approach is the best fit for them. In a study conducted in the United States, the relationship between SDL and academic goal orientation leading to academic motivation and success is highlighted (Abar & Loken, 2010). Students, who are pro-active in and outside of class, maintain good study habits and pay attention to their learning habits, were reported to be highly successful. Flint and Johnson (2011) supported this assertion by indicating that students who actively participate in classes, network with students, talk to professors, have excellent time management skills, set personal goals, and are self-directed, succeed academically.

2.4.2.3 Conducive learning environment

Environmental factors, such as the teaching and learning environment, peer network, parental support and socio-economic status of the students play an essential role in contributing to academic success. The conduciveness of the learning environment contributes immensely to the students' academic success, and it is therefore highly relevant for this study to comprehend

this contribution. The contribution of educational administrators, faculties and students' behaviour to nursing education, are responsible for advancing the development, dissemination and use of nursing knowledge (Flott & Linden, 2016). By building a supportive learning environment, creating respect in the classroom environment, giving responsibilities to the students and having teachers behave as good role models by avoiding negative comments, lead students to successful learning (Flott & Linden, 2016).

It is important to note that students entering nursing education and training originate from a diverse range of backgrounds, which include varied experiences and academic backgrounds, learning ability as well as different race, gender, and language. The backgrounds of these students and their diversity pose opportunities and challenges regarding how to deliver effective teaching and learning that would provide them with a sound foundation to achieve, both professionally and academically (Flott & Linden, 2016). Hence the learning environment should be such that it is accommodative to the diversity and foster growth using acceptable approaches.



When teachers cultivate an academic environment in a classroom, there is a higher likelihood of their students becoming academic achievers. The positive attitude, feedback, along with frequent praise brings about students' confidence, leading them to perform tasks and become academically successful (Kruger, 2012). A study conducted by Wells (2011) reveals that a positive teacher-student relationship leads to a positive self-concept in students, ultimately resulting in their motivation. Support from teachers brings about goal motivation in students. By creating an emotionally intelligent environment, such as equipping students with essential life skills and learning behaviours such as self-awareness, empathy, motivation, managing feelings and social skills, teachers in nursing education increase the potential for success in

students. This means that a teacher should not only focus on pedagogical techniques, but also on the social and emotional dynamics of the student-teacher relationship based on attachment theory (Krstić, 2015).

Another main environmental factor influencing the academic success of a student in higher education is based on the institutional policies as well as teaching strategies (Rani, 2012). It is noted that lack of effort by a student can lead to failure, but poor teaching strategies may very well be one of the reasons for the failure. Wentzel (2016) holds the opinion that a teacher who provides strong emotional support, facilitates teacher-student relationships and students' achievements positively, influences academic success. This is maximised with the use of democratic leadership styles, along with warmth and support. Li and Miller (2008) support the above view. They further state that by creating a positive student-teacher relationship and interaction, and building self-confidence and esteem in students, a teacher motivates the student and leads him or her to academic success. A supportive environment with respect, less friction among students and teachers, giving responsibility to students, managing academic time, can also bring success (Li & Miller, 2008). This, therefore, means that the institutional policies should be supportive of these teaching strategies and encourage positive student-teacher interactions.

Furthermore, academic success has been noted in an institution that fosters peer support. Students with higher academic motivation and achievement were encouraged to become role models to other students and motivate them to lean towards positive academic behaviours (Mallet & Habib, 2016). Students' associations on campus can assist the teachers as they work to promote student success by offering access to role modelling, peer support and encouragement, tutoring opportunities and communication strategies. The institutional

commitment to encourage student success results in more successful students (Hasan & Khalid, 2014).

The physical appearance of the environment where teaching takes place contributes to successful learning. Students in a clean environment tend to listen more to instructors or teachers than students in a dirty environment (Celikoz, 2010; Hasan & Khalid, 2014; Adkins-Coleman, 2010). In addition to cleanliness, access to technology such as the internet impact on learning success because it affects the ability of the students to have access to study techniques and materials that are available worldwide.

2.5 THEORETICAL FRAMEWORK

A theoretical framework is the overall conceptual underpinning of the study, which is a conceptual rationale (Polit & Beck, 2016). This is a framework that guides the development of the study and enables the researcher to link the findings to the nursing body of knowledge (Burns & Grove, 2016). The theoretical framework that was adopted in this study is based on Keller's ARCS Model of Motivation, 1984 (Keller, 2010) in which four personal characteristics of the student and related teacher driven strategies, categorised as Attention, Relevance, Confidence and Satisfaction (ARCS), play an integral role in leading to effective performance and success in their learning. Figure 1 below depicts the construct, their definitions as well as the process questions that teachers must ask when planning motivation strategies.

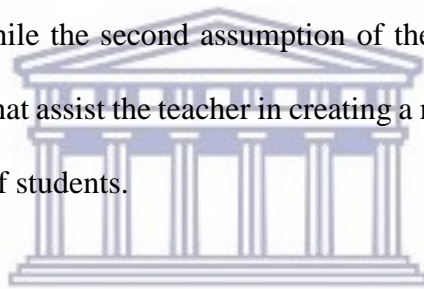
Major Categories and Definitions		Process Questions
Attention	Capturing the interest of learners; stimulating the curiosity to learn	How can I make this learning experience stimulating and interesting?
Relevance	Meeting the personal needs/ goals of the learner to effect a positive attitude	In what ways will this learning experience be valuable for my students?
Confidence	Helping the learners believe/ feel that they will succeed and control their success	How can I via instruction help the students succeed and allow them to control their success?
Satisfaction	Reinforcing accomplishment with rewards (internal and external)	What can I do to help the students feel good about their experience and desire to continue learning?

Figure 1: The Categories, Definition and Process Questions of Keller’s ARCS Model of Motivation, 1984 (Keller, 2010).

According to Keller, motivation is an integral aspect of students’ learning, and it can be stimulated and sustained through various approaches and problem-solving methods (Keller, 2010). The foundation of the ARCS model came from Keller’s Macro Model of Motivation and Performance (Keller, 1979; Keller, 1983b). He explains that the input of students’ motivation and subsequent output of performance is effective when the three psychological domains of attention, relevance and confidence are stimulated in the student. Supplementary to this, the learning environment also influences the students’ behaviour. Along with constant feedback and intrinsic and extrinsic stimulation, the student finally attains satisfaction. This model also illustrates how motivation influences the effort that a student will exert towards achieving their goals. When combined with their knowledge and skills, it influences their overall performance (Keller, 2010). Additionally, it depicts a design process to solve motivational problems faced in teaching and learning environments and helps to solve these problems by selecting motivational strategies which are compatible with the learner, instructor and learning environment (Keller, 2010).

In this study, the researcher, therefore, adopts Keller's ARCS Model of Motivation, 1984, which focuses on the essence of human motivation and volition. Keller further explains that attention, relevance, confidence and satisfaction are essential in student motivation as they are psychological characteristics of students that influence their motivation. Since the study focuses on student motivation and success factors in learning, this model is relevant to this study. For students to succeed despite the challenges they face, new and innovative approaches need to be employed, hence the choice of this model.

There are two significant assumptions of the model. The first assumption explains the components of motivation, while the second assumption of the model includes a systematic design process and strategies that assist the teacher in creating a motivational enhancement that is appropriate for a given set of students.



For the first assumption to be attained, the following factors need to be taken into consideration:

- Knowing and identifying the elements of human motivation;
- Analysing the audience characteristics to determine motivational requirements;
- Identifying characteristics of instructional materials and processes that stimulate motivation; and
- Selecting appropriate motivational tactics, applying and evaluating them.

The second assumption is explained based on the four categories needed for promoting and sustaining motivation in the learning process, which are: Attention, Relevance, Confidence and Satisfaction, including their relevant strategies.

2.5.1 Attention as a construct of the ARCS model

Attention is the cognitive process of selectivity concentrating on one aspect of the environment while ignoring other things. The importance of students' attention in the classroom setting plays a great role in optimising their behaviour for academic performance (Pekrun, Hall, Goetz & Perry, 2014). To gain students' attention, teachers need to stimulate interest in students, which leads to sustained attention. However, it is important to note that before attention can be gained from students, it must be acquired first through the domain of motivation. Motivation is, therefore, essential in acquiring the attention of students (Keller, 2010). Keller further stipulates that the strategies for acquiring attention are perpetual arousal, inquiry arousal and variability. Perpetual arousal is a reflexive reaction to stimuli by a sudden change in the environment, creating curiosity in students, for example by changing voice levels, light intensity or temperature, or by introducing surprises and using humour in teaching. Inquiry arousal is where the educator brings surprises to the classroom setting, gains interest and stimulates curiosity in students by including problem-solving, role-play, games, quizzes, and inquiry. Variability in teaching, according to Keller, sustains attention, and hence the instructor can bring variability to the classroom through, for example, having a short lecture followed by a demonstration, as can be applied by demonstrating in a nursing simulation lab. Active participation can gain the students' attention, short lectures, YouTube videos, games, various multimedia designs, short presentations and by adding various styles in teaching. Teachers must ensure that the instructional material and content is as meaningful as possible, as inquiry arousal connects the students to the educator through asking introspective questions and solving problems and brainstorming. The use of visual stimuli and story-telling can also grab the attention of students, as justified by the work of Dinçer and Doğanay (2017). These authors note that pedagogical agents such as cartoons and other animations have a significantly positive impact on gaining students' attention. Van der Meij, van der Meij and Harmsen (2015) who

found that students' attitude, attention and motivation are all notably enhanced when harnessing the aid of pedagogical agents in the classroom environment, obtained similar results. This is also applicable in nursing education by using videos, group interaction and discussions as learning styles. If the educator creates effective classroom procedures, it can keep disruptions to a minimum, and gain the attention of their nursing students. Students' attention can also be gained by having a structure in teaching for students to follow easily in class. An educator must stay up to date with teaching and learning trends by attending various workshops, meetings and by doing research. This will bring out an interest and later, academic success in students. In addition, some lessons become monotonous over time, creating boredom and disrupting students. This can be avoided by bringing new ideas in teaching methods, which can make a huge difference in the learning environment. Very often, a disruptive classroom environment comes in the way of a student's attention during class, and this can have a detrimental effect on the student's academic success. An educator needs to create an effective discipline plan, including rules, and apply them fairly and consistently. This will help the class in being conducive to learning (Afzal, Ali, Khan, & Hamid, 2010).

2.5.2 Relevance as a construct of the ARCS model

Relevance refers to something that is appropriate to the matter at hand. Relevance also means something contemporary rather than something old. It is the quality of the subject rather than the relationship of the learner with the subject (Kember et al., 2008). Keller suggests that relevance is a powerful factor that determines a person's motivation (Keller, 2010). The most important part of teaching is to teach topics with relevance, ensuring that the students' curiosity is aroused thus being motivated to learn (Kember et al., 2008). The instructor, therefore, should make teaching materials relevant to students' learning goals, as goal orientation is a key component to relevance (Keller, 2010). Keller divides relevance into subcategories, namely

goal orientation, motive matching and familiarity. In goal orientation, people will be more motivated to learn when they perceive that the new knowledge or skill that they have learnt will help them to achieve their goals in the present or the future. It is, therefore, useful to relate the course to getting a job, or improving their performance (Keller, 2010). Motive matching sees the student maintaining a positive feeling about his or her learning environment and working relationships, strongly defining his or her goals and upholding a sense of control in achieving these goals. With this, the students finally feel intrinsically responsible for their success (Cerna & Pavliushchenko, 2015; Valle et al., 2016). In familiarity, a student feels interested in the learning content and creates a connection between the content, experience and interest (Keller, 2010). The students must, therefore, get an opportunity to relate the course subject matter to the world around them. In nursing education, students feel this relevance when real-life scenarios and current topics from the community, such as TB and its spread and HIV, are being taught. Giving assignments and allowing group discussions and role-play from the contemporary topics help the students to share ideas collectively, which increases quality and brings about motivation in learning. Nursing is a profession where the students must deal with people and their problems as well as how to prevent illnesses and promote health. A nursing student is privileged to help and assist people with issues that are relevant to the student's life, such as managing diets to prevent illnesses like diabetes and hypertension. This means that the students apply theory in practice, relate subject matter to "everyday" applications, discuss, and find application in current newsworthy issues and events. Malik (2014) holds the opinion that if students are provided with the opportunity to discuss current topics which are worthy in learning and they operate in the real world, they connect to what they know. Students' motivation is increased by using familiar language in teaching, attaining experience by using existing skills and building new knowledge, especially while doing nursing practices. It also highlights the present worth of the study, its future usefulness, and the option where the student

has the freedom to choose. In nursing, the student deals with patients' problems and assists people to promote health, which is relevant to their lives and people around them.

2.5.3 Confidence as a construct of the ARCS model

Confidence is a feeling or belief that one can have faith in, or rely on oneself or others. According to Keller, confidence is a concept that explains, through various motivational constructs, the perceptions of one's control and expectancy for success, or the opposite extreme - helplessness (Keller, 2010). Students need constant encouragement and positive reinforcement to gain confidence, just as a plant needs water to grow. The student's fears and anxiety need to be addressed by teachers to gain confidence more efficiently, and thereby, leading them towards academic success. An overconfident student might not pay attention in class, while another student may be too anxious and consequently not pay attention as well. In both cases, these feelings can be masked, and it is therefore essential that a teacher knows his or her students well enough to 'unmask' these visages. The educator must strengthen the self-esteem of the students and reduce unnecessary criticism and instead, praise them for their achievements and encourage good virtues. Educators' encouragement in the form of smiles, tone of voice or pats on the shoulder, helps the student to gain confidence and motivates them to learn (Valizadeh et al., 2016).

The three strategies used to build confidence are learning requirements, success opportunities and personal control (Keller, 2010). In learning requirements, the teacher needs to understand that his or her students can feel anxious about exams and procedures in various skill tests. To help face these, the educator should make outcomes and objectives clear in advance, and give frequent feedback, helping the student to succeed. This is also applicable in nursing education, where students have to undergo both extensive written exams as well as practical skill tests,

where making students aware of the criteria and objectives of assessments, previous test patterns, key points and examples from peers' successful work can help instil a sense of confidence among nursing students. To create a sense that every student has the opportunity to succeed, the teacher needs to engage in practising the relevant skills regularly and provide the necessary feedback, which leads to students feeling more confident in their skills, and thereby opening avenues to sharpen them through competitive peer exercises. Therefore, peer interaction can strengthen students' motivation, satisfaction and bring self-control and confidence, which also applies to nursing group learning. Confidence is also often associated with perceptions of one's control over being able to succeed in their learning. Control is, however, initially at least, always in the hands of the instructor as it is the instructor who sets the standards that are expected while maintaining a stable learning environment, allowing learners to exercise personal control over their learning.

2.5.4 Satisfaction as a construct of the ARCS model

Satisfaction is the fulfilment of one's wishes, expectations or needs, or the pleasure derived from this (Oxford Dictionary of English, 2010). Satisfaction is the final step in the motivational process, and upon achieving this, the student is motivated to learn further (Keller, 2010). The strategies used to achieve satisfaction are natural consequences, positive consequences and equity. Natural consequences can be achieved by providing meaningful opportunities to the student to use their knowledge or acquired skills. This means that once a student successfully finishes a task at the end of the class, he or she is bound to be satisfied. In nursing, case studies, simulations and experiential learning activities can be regarded as meaningful applications of the statement above. The educator needs to find solutions when a situation arises to improve the skill of a nursing student. An educator needs to be sincere in their approach, must hold sincerity towards the students and respond immediately if they need to address the positive or

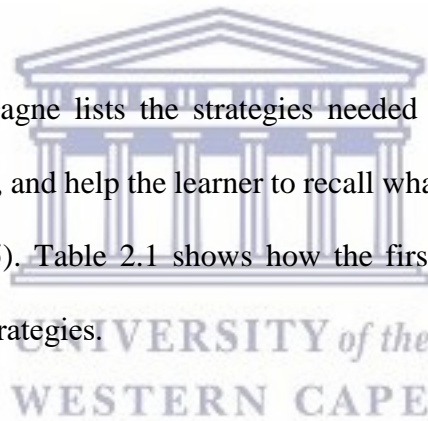
negative behaviour. They also need to check assignments and tasks and give timely feedback (Nicol, Thomson & Breslin, 2014). Educators should make sure that students are left satisfied at the end of class sessions, as well as after they have completed skills and tasks successfully. The students feel satisfied when they are rewarded for their achievements. Positive consequences result from students receiving awards such as trophies, certificates and recognition, which helps in shaping their behaviour. The nurse educator must encourage the students timely on their achievements, assignments and tests and further encourage them by giving a smile or a tap on the shoulder (Keller, 2010). This is especially true in practical nursing sessions where this form of encouragement would make nursing students feel that the attained new skill is truly beneficial in the real-life setting. Equity is maintained by setting consistent course outcomes through initial presentations and discussions that focus on setting consistent standards and consequences of task accomplishments. Keller further clarifies that satisfaction is indeed based on motivation, which can be intrinsic or extrinsic, and that it is also important to note that educators should try not to patronise students by over-rewarding.

When these assumptions are applied to the study, it implies that to motivate the nursing students, teaching should be engaging thus capturing the attention of the students. The topic must be relevant to the future goals of the students. This, in turn, will satisfy the learning needs of the students and build confidence based on the educator's prompt and proper feedback. Consequently, motivated students will improve performance and the throughput rate of the college.

2.5.5. ARCS vs Gagne's nine events

The ARCS concepts can also be explained by comparing them to a similar instructional design. The elucidation of ARCS concepts is therefore possible by applying them to Gagne's process. Other researchers have also made such comparison to see how applicable can the ARC model be when pitched with the often used motivation models. Cheng and Yeh (2009) demonstrate a comparison by taking the ARCS model and applying it to the Morrison, Ross and Kemp instructional design model. This comparison further explains that before teaching, it is vital to analyse the learners themselves and the context that they find themselves in. The discussion will first focus on Gagne's nine events of instruction that deal with activities that happen before the content presentation begins.

Before content instruction, Gagne lists the strategies needed to gain attention, inform the learner of what they will learn, and help the learner to recall what they already know about the course material (Gagne, 1985). Table 2.1 shows how the first two ARCS components are aligned with Gagne's initial strategies.



The first component of ARCS, attention, also values the importance of making learners curious about the content, and their willingness to learn (Cheng & Yeh, 2009). Keller (1987) describes this as a sudden, innovative change in the learning environment, almost like “blowing a whistle” or presenting a shocking photo to the class.

The ARCS strategy of relevance helps in ensuring that learners are continuously interested when the teacher relates what the learner is learning to how it will be useful to him at a later stage (Gagne's informing learners of the objective), and how it is familiar or related to the learner's previous knowledge or experience (Gagne's stimulating recall of prior knowledge). Motive matching is also an essential process in learner analysis (Keller, 1987). Keller adds that

it assists the teacher in matching instructional objectives to the learner needs (Keller, 2010). Though relevance applies to Gagne’s pre-content events, it can also be applied to the stage in the instruction when the content is presented.

Table 2.1 Gagne’s Nine Events of Instruction and ARCS Motivation Model Concepts (Adapted from Learning Theory, 2005).

GAGNE’S NINE EVENTS OF INSTRUCTION	ARCS MOTIVATIONAL MODEL CONSTRUCTS
1. Gaining attention	ATTENTION
2. Informing learners of the objective	RELEVANCE
3. Stimulating recall of prior knowledge	
4. Presenting the content	CONFIDENCE
5. Providing learner guidance	
6. Eliciting performance	
7. Providing feedback	
8. Assessing performance	
9. Enhancing retention and transfer	SATISFACTION

Gagne’s event of “presenting the content” involves inductive and deductive instruction according to Dick, Carey, & Carey (2009). Therefore, including the concept of relevance is essential if the learner is to assimilate new knowledge and skills. Using examples in teaching, practical definitions and clear objectives assist in relating what students are learning with regard to their future goals.

Gagne's step of "providing learner guidance", as is explained by Dick, Carey, & Carey (2009), involves using examples, modelling, and visual aids. These can be used to improve a learner's confidence. Keller defines confidence as clarifying learner expectations. The sub-strategies involve learning requirements, success opportunities, and personal control.

Keller (1987) also states that learners should be given the opportunity to practice skills on their own to gain confidence. Gagne (1985) categorises the next two steps as "eliciting performance and providing feedback." Elements of the ARCS strategies of satisfaction can also be seen in these steps. Satisfaction comes from receiving feedback that is specific and given at the right time. As the learners try out new knowledge, they need to know what they are doing right.

Finally, Gagne's (1985) last two steps are called "assessing performance and enhancing retention and transfer." Using motivational strategies of confidence and satisfaction will also aid in ensuring that knowledge and skills are efficiently transferred. Assessments should be set at the appropriate level of difficulty, as motivation tends to dissipate if something is made too easy or too hard (Keller, 1987). Enhancing retention focuses on the satisfaction a student will attain when they utilise their new skills for the first time.

In this study, only one model is used (ARCS), however, the researcher deemed it necessary to further explain the model from a different perspective. Furthermore, the idea was to drive home the importance of this concept of motivation which is the focus of the study.

2.6 SUMMARY

This chapter reviewed literature about contributory factors to student success in higher education and particularly in nursing. The chapter discussed the fundamental concepts that foster successful student learning outcomes, and these included, enhancement of quality and

both facets of motivation. Attributes that must be in place to ensure that the gained motivation to succeed bears fruit which include; goal setting, self-directed learning and conducive environment were discussed. The chapter further explained the theoretical framework that is adopted to guide the study and its application to this research.

In conclusion, it is imperative that programmes should be evaluated from time to time, not only from a teaching perspective but also from students' opinions. The ARCS model gives the opportunity to measure potential success of the programme through evaluating the students' motivation (the driver to success) using its construct



CHAPTER THREE

RESEARCH METHODOLOGY

3.1 INTRODUCTION

In this chapter, the methodology used in this study is described. This chapter discusses the research design, the studied population, the sampling method and size, the data collection strategy and data analysis process, measurement for rigour and ethics. As stated in chapter one, this study aimed to describe the factors that motivate students to succeed in their learning in a nursing college in Western Cape using the Attention, Relevance, Confidence and Satisfaction (ARCS) model as a framework to guide this study. To achieve this aim, the following objectives were set:

1. To determine the motivating factors that stimulate and maintain the students' attention during learning in a college in the Western Cape
2. To identify factors that enhance the relevance of the programme to motivate nursing students to succeed.
3. To describe the confidence of nursing students in achieving their learning goals and factors that enhance confidence.
4. To describe the satisfaction of nursing students in their learning and factors that enhance satisfaction.

3.1.1 Research hypothesis

A research hypothesis is the formal statement of the expected relationship(s) between two or more variables in a specified population (Burns & Grove, 2016). In this study, the theoretical framework was used to formulate the hypothesis as stated below;

H1 (Hypothesis 1) – The factors that stimulate and maintain the students’ attention during learning, and are relevant to their practical context, motivate students to succeed in their learning.

H2 (Hypothesis 2) - Students who are confident and satisfied with their learning programme and environment are motivated to succeed in their learning.

H2 (Hypothesis 3) - The factors that enhance confidence and satisfaction in students, motivate them to succeed in their learning.

3.2 RESEARCH DESIGN

A research design depicts the methodology of a research study as quantitative, qualitative or encompassing both quantitative and qualitative approaches (Harwell, 2011). In this study, a quantitative research approach, with a cross sectional, descriptive design, was used to describe the factors that motivate students to succeed in a nursing college in the Western Cape. According to Burns and Grove (2007), a design is not only a blue print for conducting a study, whereas it is an overall plan for obtaining answers to the question being studied and for handling various challenges that benefits the study evidence (Polit & Beck, 2010; Terre Blanche & Durrheim, 2004). According to Babbi and Mouton (2006), a research design is a plan or structured framework of how one intends to conduct the research to address the research problem.

3.2.1 Quantitative research approach

According to Polit and Beck (2010), quantitative approach produces measurable data and is mostly concerned with observable and measurable phenomena involving people, events or things. In this study, the researcher chose this approach because it assisted in achieving the set

intention, which was to produce measurable data that could be objectively viewed to have measured the phenomenon under study.

3.2.2 Descriptive design

Descriptive designs are used to gain more information about characteristics of a particular field of study. The purpose is to give a picture of a situation as it naturally happens (Burns & Grove, 2016). A descriptive design searches for accurate information about the characteristics of a single sample, such as subjects, groups, institutions, situations or about the frequency of a phenomenon's occurrence. In a descriptive study, the demonstration of the relationship between the variables is often established (Gravetter & Ferzano, 2012). This method was chosen to help identify various factors and attributes that help motivate students to succeed in their learning.

3.2.3 Cross-sectional design

Cross-sectional designs are used to examine groups of subjects in various stages of development simultaneously, with the intent to describe changes across stages (Burns & Grove, 2016). The design was chosen for this study because it allowed the researcher to examine the success among students in a nursing college who were at varied stages of their studies. These were from the second (2nd) to fourth (4th) year level and possibly had different views. Although the aim of the study was not to make a comparison, the researcher would still be able to make a judgement on the factors that motivate the students over time.

3.3 METHODS AND PROCESSES

Research methods explain the systematic processes and techniques used during the study. These methods include identification of the population, the sampling technique, determination

of the sample size, data collection and analysis processes, validity and reliability of measure as well as the ethical principles that were adhered to during the research process.

3.4 STUDY POPULATION

According to Polit and Beck (2010), the population is the entire aggregation of cases on which a researcher focuses in the study. The same authors also describe the population as the entire set of individuals or objects having some common characteristics. The target population refers to a group of individuals who meet the sampling criteria and to which the study findings are generalised (Burns & Grove, 2016). The target population (N) in this study were the nursing students at a nursing college in the Western Cape who were registered for the R425 programme during the time of the study, and who had consistently succeeded from their second to fourth-year study levels. N=768 students met these criteria, wherein 231 were in their second year of study, 292 in the third year and 245 in the fourth year.

3.4.1 Population sampling

Sampling is the process of selecting a portion of the population to represent the entire population (Polit & Beck, 2016). The stratified random sampling method (Acharya, Prakash, Saxena & Nigam, 2013) was used where students were grouped per their level of study, which is from second to fourth year. A class list was generated for each year group and students were selected randomly by tossing their names in a hat until the targeted number of students per year group was reached.

3.4.2 Sample size

Considering a 5% margin of error and a 95% confidence level, a sample size (n) of 257 was calculated using the Raosoft sample size calculator. The sample size was determined using the formula for the single population proportion (Grove, Burns & Gray, 2014) as depicted below;

$$n = \frac{p(1-p)(z/2)^2}{e^2}$$

Where:

n = the size of the sample

z = is the standard normal value corresponding to the desired level of confidence

e = error of precision

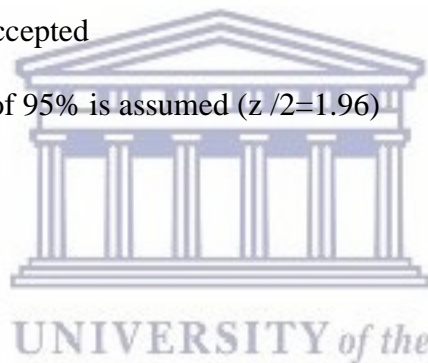
p = is the estimated proportion of an attribute that is present in the population

Based on the following assumptions:

1. In the absence of the previous prevalence data on the population under study, and to obtain the maximum sample size, p is assumed to be = 0.5
2. Margin of error e = 5% is accepted
3. A confidence interval (CI) of 95% is assumed (z /2=1.96)

$$n = \frac{(1.96)^2 \cdot 0.5(1-0.5)}{(0.05)^2}$$

$$= 257$$



Out of 231 nursing students, in the second year, 78 were selected, whereas of the 292 in the third year, 96 were selected. Finally, from the 245 fourth year students, 83 were selected. Table 3.1. below depicts the proportional sample representation per year group.

Table 3.1: Proportional sample representation per year group

Level of Study	Total number of students per year (N)	Total number of selected students per study year (n)	Sample (%)
Second Year	231	78	(30.10%)
Third Year	292	96	(38%)

Fourth Year	245	83	(31.90%)
TOTAL	768	257	(33.46%)

3.5 PREPARATION FOR THE STUDY

Before conducting the study, permission to collect data was requested from the management of the institution where the study took place (Appendix 1). The researcher approached both the director and principal of the college simultaneously, to inform them about the study and the data collection procedure. The meeting was followed up by an e-mail communication, and later, permission was sought from the ethics committee of the college (Appendix 4) as per the standard requirements. After all the relevant authorities in the college deliberated, the permission was subsequently granted.

The lecturers of the second, third and fourth-year classes were informed about the study to assist in the recruitment of students. The time for data collection was subsequently negotiated and agreed upon. The lecturers preferred to give time for data collection before the recess for lunch or in the afternoon after their classes, where they completed lectures half an hour beforehand. This timing was also negotiated with the students. Before this, the researcher emailed and telephonically contacted the students from different levels and explained the purpose and nature of the research and its importance to nursing education. The students who volunteered to participate in the study were then allowed to choose the date, time and place in the college to respond to the questionnaires.

On the day of data collection, the researcher clarified to the students their option to withdraw from the study at any time should they wish to and emphasised that participation was voluntary. The students signed a consent letter (Appendix 2) before data collection commenced.

3.6 INSTRUMENTATION

The instrument was constructed in line with the study's objectives, literature review and the theoretical framework. The instrument was designed in the form of a structured questionnaire, which consisted of closed-ended questions (Appendix 3). Some questions were scaled using the four-point Likert scale and others were multiple choice questions. The questionnaires were personally administered by the researcher and one assistant. The questions were asked in two sections (A and B).

- Section A used the nominal scale measurement to collect demographic information from the participants, such as their age, race and home language. Questions were asked why students chose nursing as a career; if nursing was their first choice; and the reason behind their choice. All the questions were multiple choice and allowed only one answer which was given a code for entry into the computer.
- Section B consisted of a four-point Likert scale with 37 items to measure ordinal data. The section asked the students to comment on aspects related to attention, relevance, confidence and satisfaction during their learning, where the options to choose were; always (1), most times (2), seldom (3) or never (4), were available. The number of items per construct or phenomenon ranged from 5 to 6. The questionnaire was in English because all the students were fluent in English. The same language is used as a language of instruction at the nursing college.

3.7 PILOT STUDY

A pilot study is a small-scale version or trial run in preparation for a major study (Polit & Beck, 2016). According to Goodman et al., (2011), a pilot study assists in identifying potential problems with the design, which can then be rectified before the actual study is carried out and enhance cost-effectiveness. Nine students were recruited (three students were taken from each

year class) for the pilot study, and the information received from the questionnaires were not included as part of the final results of the study. This pilot study assisted in checking for consistency and missing values in the instrument, and measured the average time taken to answer the questionnaire. The participants were given free will and encouraged to be sincere. They were informed that they should answer all the questions in the questionnaire. The average time estimated to complete the questionnaire was recorded to be 20 minutes, and the participants indicated that the questionnaire was easy to understand. Therefore, no corrections were made on the questionnaire, and it was deemed ready for use in the main study in its original form.

3.8 DATA COLLECTION

Data collection is defined as a precise, systematic gathering of information relevant to the research aim or specific objectives or questions of the study (Burns & Grove, 2016). A questionnaire was used as a data collection instrument in this study. The researcher emailed and telephonically informed the students about the research and allowed the students who volunteered to participate to choose the date and time after lectures to answer the questionnaire at the college. The year plan of the college was reviewed in order to check the availability of the 2nd to 4th year students. The lecturers were contacted, and they allocated 30 minutes after their lectures for the data collection. The questionnaire was directly administered to the participants by the researcher and her assistants and it took between 20 and 30 minutes per student. This was done at different points over a three-month period from 29 June 2015 to 19 August 2015 depending on the availability of the year level on the college campus. The questionnaires for each year of study were coded accordingly, then placed in a separate box and locked in a securely cabinet that was accessible only to the researcher.

3.9 DATA ANALYSIS

The collected data was coded, cleaned and entered into the computer. The data was analysed using the computer software called Statistical Package for Social Sciences (SPSS version 22.0). Descriptive measures, such as frequency tables, averages, percentages and graphs were used to show the occurrence of different observations as investigated in the study. The Kruskal-Wallis test was applied to find the statistically significant difference among the groups in the study.

3.10 STUDY RIGOUR

A study rigour is a strict adherence to standards in a study, where the internal and external consistency is checked and maintained.

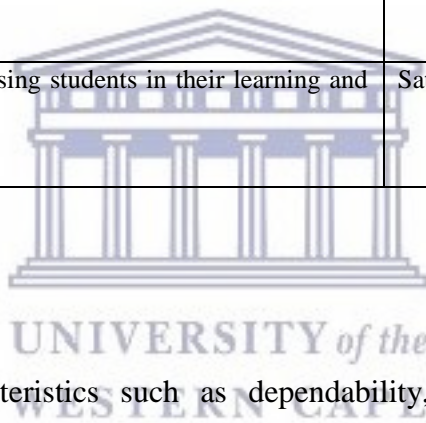
3.10.1 Validity

Validity refers to a quality criterion, which comprises the degree to which inferences, made in a study, are accurate and well-founded. Regarding measurement, it is the degree to which an instrument measures what it is intended to measure (Polit & Beck, 2010). In this study, the researcher used face and content validity to ensure that the instrument is standardised. Face validity is defined as a quality measure that verifies whether the instruments gave the appearance of measuring the content desired for a study (Burns & Grove, 2016). Although the face validity cannot be quantified, the instrument was scrutinised by the supervisor and the statistician to ensure it measures what it was intended to 'on the face of it'. On the other hand, content validity is a quality measure, which examines the extent to which the method of measurement includes all the significant elements relevant to the construct being measured (Burns & Grove, 2016). The appropriateness and the accuracy of the instrument were maintained by timely consultation with the statistician and the supervisors. The data collection tool was drafted in English to avoid misinterpretation, checked by the supervisor, peers, and

the one expert in the field of nursing education who was available to the researcher. Table 3.2 below depicts the evidence for the content validity of the study.

Table 3.2 Content validity matrix

Objective	ARCS model constructs	Number of Items
To determine the motivating factors that stimulate and maintain the students' attention during learning in a college in the Western Cape	Attention	Items 7 – 11
To identify factors that enhance the relevance of the programme to motivate nursing students to succeed.	Relevance	Items 12- 16
To describe factors that enhance confidence of nursing students in achieving their learning goals.	Confidence	Items 17 -22
To describe the satisfaction of nursing students in their learning and factors that enhance satisfaction.	Satisfaction	Items 23 – 27



3.10.2 Reliability

Reliability addresses characteristics such as dependability, consistency, accuracy and comparability (Burns & Grove, 2007). Reliability in statistics, is the overall consistency of a measure. It is the extent to which the same research technique applied again to the same object/subject, will give the same results. In essence, it refers to the reproducibility of observed values. The instrument was constructed to ensure that it is measuring similar or common constructs and correlates to each other and the degree of this correlation was determined with the assistance of a statistician. The instrument was tested for internal consistency by doing a pilot study. The reliability test was conducted using Cronbach's Alpha test, and the final test score was 0.8. after two questions which scored 0.662 and 0.672 were omitted from the instrument. Appendix 4 details the instrument' Cronbach's Alpha test scores.

3.11 ETHICS

Ethics is defined as the study of moral standards and how they affect the participants during and after completion of the research (Gravetter & Farzano, 2012). Research ethics is concerned with the responsibility of the researchers, to be honest and respectful to all individuals who are affected by their research studies or the reports of the study's results. The study must be presented honestly without distortion to support evidence, and the rights of the participants need to be protected (Gravetter & Farzano, 2012). Three broad principles have been identified through which to address ethical issues in research, which provide a basis for ethical guidelines. They are; respect for persons, beneficence and justice. However, before attention was given to the participants and the study commenced, relevant authorities were requested to grant permission to conduct the study.

3.11.1 Permission to conduct the study

A written approval was sought and received (Appendix 4) from the ethics research committee of the University of the Western Cape before the study commenced. Permission was requested from the director and principal of the nursing college where the study was conducted and the ethics research committee of the same college (Appendix 6).

3.11.2 The principle of respect for persons

This principle refers to the researcher's acknowledgement that the participants are autonomous individuals, capable of self-determination and individual choice. Respect for persons also includes the protection of those individuals with diminished autonomy such as the children and people with mental disability which can impair their decision-making abilities (Brink et al., 2010b; Burns & Grove, 2009). In this study, all participants were treated as autonomous agents as they were well-informed that their participation in the study was voluntary and have the rights to withdrawal from the study any time without a penalty.

3.11.3 Principle of Beneficence

Beneficence implies that the intended case is aimed at what is good for the well-being of the participants. This principle encourages the researchers to do good and above all do no harm (Kelty, 2010). In addition, non-maleficence refers to the duty of not inflicting harm (Gravator & Forzana, 2012). The researcher is obliged to protect participants from physical or psychological harm. Additionally, the researcher is obliged to anticipate and remove any harmful element in a research study and monitor the well-being of the participants (Gravator & Forzana, 2012). The researcher reassured the participating nursing students by explaining the purpose of the study and providing justification for the research. The participants were informed about their right to, or not to participate in the study and that any student who felt psychologically affected by the study would be given access to a professional counsellor. None of the students reported discomfort during and after participation in the study. The participants were also informed about their right to withdraw from the study with no penalties at any point they wished to. Furthermore, the participants were informed that the study did not have any direct benefit to them, however, the data that will be generated from the study has the potential of improving nursing education for future generations. Hence, an information sheet with an informed consent form was attached to the questionnaire when distributed to the participants.

3.11.4 Informed participant consent

The researcher informed the participating students about the nature of the research prior to its commencement. The type and use of data and the purpose of the research study were explained clearly. The researcher also explained that although there was no direct benefit to the students, there was a benefit to the future of nursing education. The informed consent form was attached to the questionnaire when distributed to the participating students, and they were requested to sign it and submit it back when returning the questionnaires.

3.11.5 Principle of justice

This principle includes ensuring the participants' anonymity, confidentiality and privacy.

3.11.5.1 Anonymity

The participants' identities were not disclosed, as the questionnaires did not ask for names, telephone numbers or residential addresses. Numerical codes were used for questionnaire identification.

3.11.5.2 Confidentiality

All data collected were only available to the researcher, supervisor and the statistician. All the responses to the questionnaires were kept safely in a locked cabinet and away from any unauthorised persons.

3.11.5.3 Privacy

The researcher assured the participants that their privacy would be protected at all times. The interaction with the students was done in the classroom after classes or during recess.

3.12 SUMMARY

This chapter explained how the researcher used the chosen design: a quantitative, cross sectional, descriptive design, to describe the factors that motivate students to succeed in a nursing college in the Western Cape. The research methods and techniques to identify the population, sample and determine the correct sample size were explained. The researcher adhered to ethical principles and ensured data quality. The next chapter presents the study's findings.

CHAPTER FOUR

PRESENTATION OF RESULTS

4.1 INTRODUCTION

A detailed discussion of the analysed results is presented in this chapter. The data collected was coded and analysed with the help of a statistician, using the computer software called Statistical Package for Social Science (SPSS version 22.0). Descriptive statistical measures, such as tables with averages and percentages, along with graphs are used to show the occurrence of different observations as investigated in the study, while inferential statistics using Kruskal-Wallis test was also performed to show significance among different year levels.

4.2 SOCIO-DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

The socio-demographic characteristics of the respondents involved in the study are shown in Table 4.1. Among the participants, (n78; 30.35%) were second-year students, (n96; 37.35%) were third-year students, followed by (n83; 32.3%) fourth year students. The majority (n103; 40%) of the respondents were 20 years old; (n64; 25%) were 19 years old, (n38; 15%) were 23 years old, and (n26; 10%) were either 24 or 25 years old. The demographic data showed that (n217; 84.44%) of the total student population were females and only (n40; 15.56%) were males.

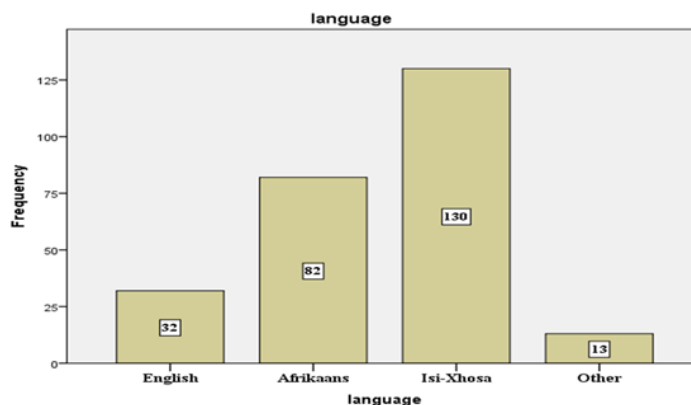


Figure 2 Languages spoken by students

Most of the students (n130; 50.58%) spoke IsiXhosa, (n82; 31.91%) spoke Afrikaans, (n32; 12.45%) spoke English, and (n13; 5.06%) spoke other languages as their primary languages. Regarding their choice of nursing as a career, (n157; 61.1%) of the respondents chose nursing as their first career choice while it was a fourth career choice to (15n; 5.8%) students. When the respondents were asked the reasons for their choice of nursing as a career, the majority of the students (n150; 58.4%) responded that it was because they wanted to become professional nurses while a few's reasons were financially driven through a bursary (n35; 13.6%) and as a last available career option (n23; 8.9%) respectively.

Table 4.1: Socio-demographic characteristics of respondents

Variables	Frequency (N)	Percentage (%)
Respondents' year of study:		
- 2 nd Year	78	30.35
- 3 rd Year	96	37.35
- 4 th Year	83	32.30
Respondents' age:		
- 18	26	10
- 19	64	25
- 20	103	40
- 23	38	15
- 24-25	26	10
Respondents' gender		
- Female	217	84.44
- Male	40	15.56
Respondents' language:		
- IsiXhosa	130	50.58
- Afrikaans	82	31.90
- English	32	12.45
- Other	13	5.06
Nursing as a career choice:		
- 1 st Choice	157	61.1
- 2 nd Choice	72	28
- 3 rd Choice	13	5.1
- 4 th Choice	15	5.8
"Why did you choose nursing as a career?"		
- I always wanted to be a professional nurse	150	58.36
- Nursing is a secure job	49	19.07

- Bursary is available which pays for the training	35	13.62
- I was not accepted to any other career	23	8.95
- Other	0	0

4.3 THE RESULTS OF FACTORS MOTIVATING STUDENTS TO SUCCEED AT A NURSING COLLEGE IN THE WESTERN CAPE

This study aimed to describe factors that motivate students to succeed at a nursing college in the Western Cape in relation to the ARCS (Attention, Relevance, Confidence and Satisfaction) Model. Broader issues on motivating factors in the students' capacity (intrinsic motivation factors) as well as from the teachers' contribution to learning (extrinsic motivation) were measured, because in trying to describe the factors that made them succeed, an understanding of their current confidence and satisfaction levels which are seen as some of the drivers for motivation needed to be determined.

The results are thus presented according to the different theoretical model constructs and objectives; and reporting on frequencies and Chi-Square using Kruskal-Wallis to measure the level of statistical differences among the groups. It was important to examine any difference that might have existed according to the views of different students, vis-à-vis their year of study. This helped in answering the question of whether there is an agreement among the groups on the variables that made up the measurements. The Kruskal-Wallis test is a statistical measure used to determine statistically relevant differences between groups of data (Chan & Walmsley, 1997; McKight & Najab, 2010). The use of the Kruskal-Wallis test was appropriate since it does not assume normality (being a non-parametric alternative to the one-way analysis of variance). Furthermore, it is suitable when the variable is an ordinal one, and when the grouping variables (population to be compared) are more than two (Chan & Walmsley, 1997;

McKight & Najab, 2010). The test was computed at a 5% level of significance for each of the variables.

To further establish where the difference lies among the groups for these significant variables, a post-hoc test was conducted through pairwise comparisons of the groups (Elliot & Hynan, 2011). The rules and decision criteria are consistent with those used for the initial Kruskal-Wallis test.

4.3.1 Motivating factors that stimulate and maintain the students' attention during learning

The nursing students' opinions about the factors that maintain their attention in their learning environment were assessed using five sets of questions. The questions determined their understanding of the language used when being taught in the lectures, the humour used while lecturing, use of visual aids such as videos and powerpoint during lectures, the level of lecturers' enthusiasm and the role-play method used in teaching. Table 4.2 present the detailed scores of each item. Overall, most of the students (n244; 94.9%) understood the language medium used in the classroom environment. There is room for improvement in the humour and role-play used in lectures, as (n61; 23.3%) and (n157; 61.1%) students respectively were seldom or not of the opinion that humour and role play were used in lectures.

Table 4.2 Respondents' attention to learning

Attention Questions	Always	Most times	Seldom	Never
I understand the language used in my lectures well	153 (59.5%)	91 (35.4%)	13 (5.1%)	0
There is humour in the ways the lectures are presented	53 (20.6%)	143 (55.6%)	55 (21.4%)	6 (1.9%)
Visual aids (e.g. videos, PowerPoints etc.) are used in the lectures	123 (47.9%)	102 (39.7%)	31 (12.5%)	1 (0.4%)
The lecturers are enthusiastic in teaching	75 (29.2%)	153 (59.5%)	28 (10.9%)	1 (0.4%)

Role-play is used during lectures	24 (9.3%)	76 (29.6%)	126 (49%)	31 (12.1%)
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4.3.1.1 Kruskal-Wallis analysis of the ‘Attention’ variable

The result of the test, as indicated in Table 4.2.1 and Table 4.2.2, shows that there was a statistically significant difference amongst the groups (student’s years of study) in response to the question “I understand the language used in my lectures well” ($H=28.393$, $df=2$, $p<0.0001$) as well as in the question “Visual aids are used in the lectures”, ($H=16.075$, $df=2$, $p<0.0001$).

To further establish where the difference lies among the groups for these significant variables, a post-hoc test was conducted through pairwise comparisons of the groups. The rules and decision criteria are consistent with those used for the initial Kruskal-Wallis test. The results show that for “I understand the language used in my lectures well”, the difference lies between the 2nd and 3rd year students as well as the 2nd and 4th year students.

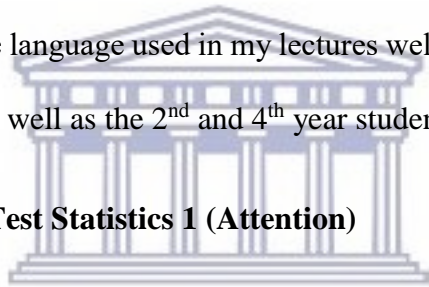


Table 4.2.1 Kruskal-Wallis Test Statistics 1 (Attention)

Test Statistics^{a,b}

	I understand the language used in my lectures well	There is humour in the way the lectures are given	Visual aids are used in the lectures	The lecturers are enthusiastic in teaching	Role play is used during lectures
Chi-Square	28.393	3.010	16.075	7.617	2.199
df	2	2	2	2	2
Asymp. Sig.	.000	.222	.000	.022	.333

a. Kruskal Wallis Test

b. Grouping Variable: Year of study

However, the results further indicate that there was no statistical difference among all the groups regarding other questions that make up the ‘Attention’ variable, as their ‘p’ values were higher than the level of significance, except in “The lecturers are enthusiastic in teaching” ($H=7.617$, $df=2$, $p=0.022$).

Table 4.2.2 Kruskal-Wallis Test Statistics 2 (Attention)

Ranks			
	Year of study	N	Mean Rank
I understand the language used in my lectures well	2	77	161.39
	3	97	117.78
	4	83	112.06
	Total	257	
There is humour in the way the lectures are given	2	77	138.38
	3	97	120.74
	4	83	129.95
	Total	257	
Visual aids are used in the lectures	2	77	154.71
	3	97	116.20
	4	83	120.11
	Total	257	
The lecturers are enthusiastic in teaching	2	77	142.00
	3	97	115.41
	4	83	132.83
	Total	257	
Role play is used during lectures	2	77	119.75
	3	97	130.80
	4	83	135.47
	Total	257	

4.3.2 Factors that enhance the relevance of the nursing programme to motivate nursing students

To be able to describe what makes students succeed, the factors that enhance the relevance of the programme subsequently, influencing their motivation to succeed were measured. Table 4.3 present the detailed responses given for the questions asked. For the question on how relevant the learning content is to the student's life, many of the students (n138; 92.6%), appreciated the relevance of the nursing content in their life. The majority (n252; 98.1%) also agreed that the nursing skills they acquire would be helpful for them. In addition to this, the clear majority (n255; 97.7%) of nursing students believed that understanding nursing gives them a sense of accomplishment in life.

Table 4.3 Relevance in respondents' learning

Relevance Questions	Always	Most times	Seldom	Never
The nursing content I learn is relevant to my life.	121 (47.1%)	117 (45.5%)	18 (7%)	1 (0.4%)
The nursing skills I learn will be helpful to me.	175 (68.1%)	77 (30%)	4 (1.6%)	1 (0.4%)
Understanding nursing gives me a sense of accomplishment in life.	186 (72.4%)	65 (25.3%)	4 (1.6%)	2 (0.8%)
Learning nursing could help me get a job in the future.	157 (61.1%)	80 (31.1%)	16 (6.2%)	4 (1.6%)
The nursing programme can help me to pursue higher studies.	179 (69.6%)	70 (27.2%)	6 (2.3%)	2 (0.8%)

4.3.2.1. Kruskal-Wallis analysis of the 'Relevance' variable

The results of the test for relevance as a factor that can motivate the students to succeed are shown in Table 4.3.1. There was not much statistical difference found among the groups of students in the variable analysed, and no score was seen below the $p=0.05$ significance. This implies that the students perceived the factors regarding relevance of the programme to their life as a motivator to succeed the same across levels.

Table 4.3.1 Kruskal-Wallis Test Statistics 1 (Relevance)

Test Statistics^{a,b}

	The nursing content I learn is relevant to my life	I think about how the nursing I learn will be helpful to me	Understanding nursing gives me a sense of accomplishment in life	I think about how learning nursing could help me get a good job	This study can help me to pursue higher studies
Chi-Square	4.204	.430	5.430	.185	.561
df	2	2	2	2	2
Asymp. Sig.	.122	.807	.066	.912	.755

a. Kruskal Wallis Test

b. Grouping Variable: Year of study

4.3.3 The confidence of nursing students and factors that enhance it as motivators to achieve their learning goals

To achieve the aim of the study in relation to the ARCS model, it was important to measure if students' confidence has an influence of success. Hence, because this population has continuously succeeded, the researcher saw it fit to assess their confidence. Additionally, the factors that enhance confidence in these students were also measured. Table 4.4 depicts the detailed responses given by the students. A whopping (n244; 94.4%) and (n245; 95.3%) students demonstrated confidence in the ability to complete their assignments on their own as well as complete practical skills independently. With regards to factors that enhances the students' confidence, the statement "I appreciate it when my teachers give me tasks that involve working with other students" received the highest positive responses (n186; 83.3%).

Table 4.4 Respondents' confidence in learning

Confidence Questions	Always	Most times	Seldom	Never
I am able to complete assignments on my own	143 (55.6%)	101 (39.3%)	13 (5.1%)	0
I am able to complete practical skills on my own	122 (47.5%)	123 (47.8%)	11 (4.3%)	1 (0.4%)
I appreciate it when my teachers give me tasks that involve working with other students	89 (34.6%)	97 (47.7%)	50 (19.5%)	21 (8.3%)
I like to do tasks with other students	71 (27.6%)	102 (39.7%)	61 (23.7%)	23 (8.9%)
My teachers are constantly encouraging me	89 (34.6%)	114 (44.9%)	42 (16.3%)	11 (4.3%)

4.3.3.1 Kruskal-Wallis analysis for the 'Confidence' variable.

In Table 4.4.1, the Chi-Square analysis for the differences in the group shows that there is no significant difference in the responses of the different groups of students ($p > 0.05$). In other

words, the way 2nd, 3rd and 4th year students viewed the factors that enhance their confidence thus motivate them to succeed is similar.

Table 4.4.1 Kruskal-Wallis Test Statistics 1 (Confidence)

Test Statistics^{a,b}

	I am able to complete assignments on my own	I am able to complete practical skills on my own	I appreciate it when my teachers give me tasks that involve working with other students	I like to do tasks with other students	My teachers are constantly encouraging me
Chi-Square	3.028	1.726	5.580	5.785	1.548
df	2	2	2	2	2
Asymp. Sig.	.220	.422	.061	.055	.461

a. Kruskal Wallis Test

b. Grouping Variable: Year of study

4.3.4 Satisfaction of nursing students with their learning programme and factors that enhances it as a motivator to success.

Table 4.5 presents the satisfaction level of the nursing students in the learning content and courses offered to them. As per the ARCS model, students who are generally satisfied with their programme (content, environment, needs) are motivated to learn. Hence, because this population has continuously succeeded, establishing their satisfaction with the programme could be an indication of their continuous success. The findings showed that most the majority of students showed traits of satisfaction with most of them responding positively to satisfaction with learning content (n211; 82%) and the class room environment (n183; 71.2%). Furthermore, many of the students (n239; 93%) reported having experienced a new learning environment through nursing education and satisfied that the course serves their need well (n234; 91%).

Table 4.5 Respondents' satisfaction in learning

Satisfaction Questions	Always	Most times	Seldom	Never
I have experienced a new learning environment through nursing education	139 (54.1%)	100 (38.9%)	15 (5.8%)	3 (1.2%)
I feel that this course serves my needs well	118 (45.9%)	116 (45.1%)	18 (7%)	5 (2%)
I feel that I want to learn more by studying higher degree nursing	171 (66.5%)	65 (25.3%)	16 (6.2%)	5 (2%)
I am satisfied with the learning content offered by my college	78 (30.3%)	133 (51.7%)	40 (15.6%)	6 (2.4%)
I am satisfied that the classroom environment is conducive to learning	76 (29.6%)	107 (41.6%)	61 (23.7%)	13 (5.1%)

4.3.4.1 Kruskal-Wallis analysis for the 'Satisfaction' variable

There are no significant statistical differences observed in the different groups for these variables. Table 4.5.1 below shows the Chi-Square results of $p > 0.05$. This means that the way students across all year levels viewed their satisfaction with the programme as well as the factors that enhance it as a motivator for success is similar.

Table 4.5.1 Kruskal-Wallis Test Statistics 1 (Satisfaction)

Test Statistics^{a,b}

	I have experienced a new learning environment through nursing education	I feel that this course serves my needs well	I feel that I want to learn more by studying higher degree nursing	I am satisfied with the learning content offered by the college	I am satisfied that the classroom environment is conducive to learning
Chi-Square	.701	.828	3.422	1.170	1.510
df	2	2	2	2	2
Asymp. Sig.	.704	.661	.181	.557	.470

a. Kruskal Wallis Test

b. Grouping Variable: Year of study

4.4 Motivation in learning environment

Since the ARCS theoretical framework is based on the motivational level of students, the researcher felt that it was essential to measure the motivational level of the students in the college.

The nursing students' intrinsic and extrinsic motivational levels in their learning environment were assessed by asking four sets of questions. The score of the above questions is in Table 4.6. Overall, the majority of the students (n246; 95.7%) and (n235; 91.4%) responded higher on intrinsic factors "I believe I can improve my professional knowledge through nursing education" and "My poor performance in tasks and tests motivates me to prepare better for next time" than on extrinsic factors "My teachers give prompt feedback on assignments" and "I am praised by teachers on my good achievements in tests and tasks" (n222; 86.4% and n211; 82.1%) as motivators for their performance.

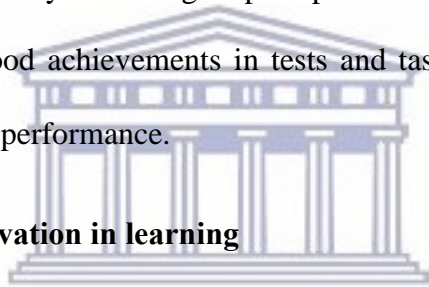


Table 4.6 Respondents' motivation in learning

Motivation Questions	Always	Most times	Seldom	Never
My teachers give prompt feedback on assignments	139 (54.1%)	83 (32.3%)	30 (11.7%)	5 (1.9%)
I believe I can improve my professional knowledge through nursing education	176 (68.5%)	70 (27.2%)	10 (3.9%)	1 (0.4%)
I am praised by teachers on my good achievements in tests and tasks	128 (49.8%)	83 (32.3%)	38 (14.8%)	8 (3.1%)
My poor performance in tasks and tests motivates me to prepare better for next time	175 (68.1%)	60 (23.3%)	18 (7%)	4 (1.6%)

4.4.1. Kruskal-Wallis analysis for the ‘Motivation’ variable.

The Kruskal-Wallis test (Table 4.6.1) found that there is a significant difference in responses to the questions: ‘My teachers give prompt feedback on assignments’ (H=31.378, df=2, p<0.0001) and ‘I am praised by my teachers on my good achievements in tests and tasks’ (H=22.121, df=2, p<0.0001). There was not much variance found among groups for other questions in this variable.

The post-hoc test indicates that there was a difference noted in ‘My teachers give prompt feedback on assignments’ between 2nd and 3rd year students. There was also a difference in the question ‘I am praised by teachers on my good achievements in tests and tasks’, which was found among 2nd and 3rd year students, and among 2nd and 4th year students.

Table 4.6.1 Kruskal-Wallis Test Statistics 1 (Motivation)

Ranks			
	Year of study	N	Mean Rank
My teachers give prompt feedback on assignments	2	77	164.62
	3	97	112.44
	4	83	115.31
	Total	257	
I believe I can improve my professional knowledge through nursing education	2	77	137.98
	3	97	120.58
	4	83	130.51
	Total	257	
I am praised by teachers on my good achievements in tests and tasks	2	77	159.03
	3	97	112.08
	4	83	120.92
	Total	257	
My poor performance in tasks and tests motivates me to prepare better for next time	2	77	134.55
	3	97	132.22
	4	83	120.08
	Total	257	

Table 4.6.2 Kruskal-Wallis Test Statistics 2 (Motivation)

Test Statistics^{a,b}

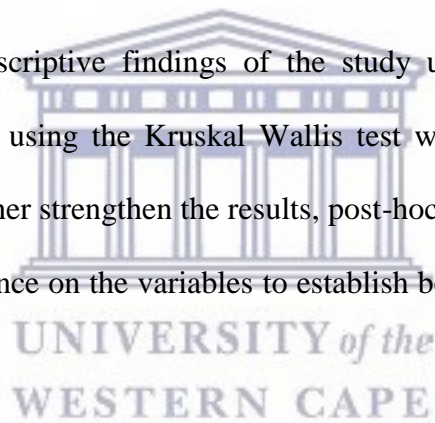
	My teachers give prompt feedback on assignments	I believe I can improve my professional knowledge through nursing education	I am praised by teachers on my good achievements in tests and tasks	My poor performance in tasks and tests motivates me to prepare better for next time
Chi-Square	31.378	3.647	22.121	2.690
df	2	2	2	2
Asymp. Sig.	.000	.161	.000	.260

a. Kruskal Wallis Test

b. Grouping Variable: Year of study

4.7 SUMMARY

The chapter reported the descriptive findings of the study using tables and histograms. Additionally, the Chi Square using the Kruskal Wallis test were calculated and statistical differences presented. To further strengthen the results, post-hoc test was done in cases where there were statistical significance on the variables to establish between which levels were the differences found.



CHAPTER FIVE

DISCUSSION OF THE RESULTS

5.1 INTRODUCTION

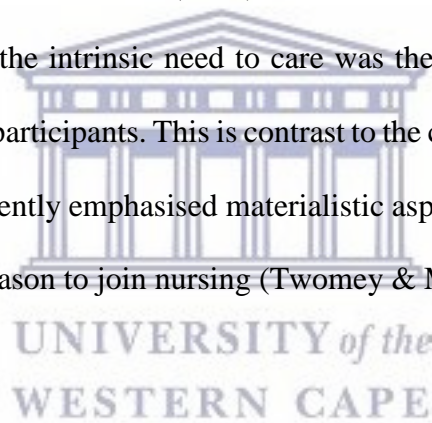
In this chapter, the data analysed in chapter four were interpreted based on scientific evidence. The findings are briefly discussed with references to support the study.

5.2 SOCIO-DEMOGRAPHIC INTERPRETATIONS

The mean age of the students was 20.39 with the minimum age of 17 years and the maximum of 25 years. This finding is supported by Khalaila (2015) and Liou, Chang, Tsai & Cheng (2013) who in their study also found the mean age of nursing students to be around this figure. The demographic data further shows that out of 257 students, 217 (84.44%) were female, and the minority were male (n40; 15.56%). This finding is common because nursing is predominantly a female profession, and the study by Twomey and Meadus (2016) supports this assertion. Christensen and Knight (2014); Zamanzadeh et al., (2013) report that men are deterred from enrolling for nursing due to reasons such as public perception, images of nursing, the value of nursing to society, sex stereotypes and patient preferences. Moreover, the nursing profession has failed to create an optimally conducive environment to retain and support male students in training, as well as in their entire nursing career ahead of them (Jamshidi et al., 2016; Michell, 2015; Hill, 2014). In contrast, Zamanzadeh et al., (2013) reported that although men and women enrolled in nursing due to the desire to care for people, the motivations of these two groups differed. Christensen and Knight (2014), reported that men put greater emphasis on aspects such as salary, job security and the social image of the profession.

The findings of the ethnical diversity among the study participants revealed that the sample was of predominantly black students (n130; 50.58%) and the second largest ethnic group was of coloured students (n82; 31.90%). Few students spoke English (n32; 12.45%) as a first language. According to the latest language survey of the Western Cape (Census, 2011), the most commonly spoken language in this region is Afrikaans (49.7%) followed by Isi-Xosa (24.72%). It is therefore understandable that few students were first language English speakers as most students in this college are drawn from the Western Cape region.

In this study, the majority of the students (n157; 61.1%) chose nursing as their first career choice as compared to a few (n13; 5.1%), who chose it for financial reasons. This findings are supported by those of Marcinowicz et al. (2016); Wilkes, Cowin and Johnson (2015) who reported that in their studies, the intrinsic need to care was the primary reason for choosing nursing as a career among the participants. This is contrast to the common believe that students' expectations and goals consistently emphasised materialistic aspects, such as getting a job and a chance for an income as a reason to join nursing (Twomey & Meadus, 2016).



5.3 DISCUSSIONS IN RELATION TO FACTORS MOTIVATING STUDENTS TO SUCCEED AT A NURSING COLLEGE IN THE WESTERN CAPE

5.3.1 Motivating factors that stimulate and maintain the students' attention during learning

The findings of the study showed that generally, students reported that there are strategies used in their learning environment that stimulate and maintain their attention thus motivating them to learn and succeed. However, it was quite surprising that most of the respondents (n244; 94.9%) reported to understand the language of instruction even though the demographics findings indicates that for many of them, it was not their first language. This thus prove the

Attention construct in the ARCS model correct that if the attention of the students is captured through strategies like the use of the language they understand, then they will succeed. These findings contradict those from a study by Jayanthi, Balakrishnan, Ching, Latiff and Nasirudeen (2014), which found that students from non-English-speaking backgrounds had lower academic performance than English speaking students. What this current study found is that, it is not about English being the first language of the students but their ability to understand the language is what maintains their attention resulting in motivation to succeed. Junious et al. (2010) says that the international students studying in the United States of America faced problems relating to language, heavy accents and communication, which placed stress on them. The language of teaching needs to be well understood by the learners for them to pay attention in the classroom.

Another strategy that was reported to be highly used to maintain the students' attention was the use of humour in teaching (n196; 72.6%). However, a little more humour was found in the second year lessons with a mean rank of 138.38 than third years (126.74) and fourth years (129.95). These findings from students who are succeeding in their learning shows the importance of the use of humour to grab and maintain students' attention during lectures or clinical teaching, as it is an effective tool in creating interest. According to Bunce, Flens and Neiles, 2010; Lynch and Pappas, 2017, humour has a positive psychological benefit, as it creates attentiveness, interest, positive rapport and retention of the material. This supports Keller (2010) assertion that creating curiosity through humour draws a student's focus to the learning at hand and avoids boredom.

With regard to visual aids in teaching, 123 (87.6%) students expressed appreciation of the use of this strategy. Audio visual aids were used more in the second year level (mean rank of 154.71) as compared to other levels such as the third year with a mean rank of 116.20 on the post-hoc test. Perhaps this difference is due to the nature of the topics such as Surgery and

Medical Nursing, which requires more simplification and elaboration thus the need for visual aids. A study by (Vangala, 2015; Dinçer & Doğanay, 2017) showed that audio-visual aids such as videos, demonstrations and whiteboards used in nursing lectures and clinical teaching catch students' attention and interest during teaching.

Another factor that was highly rated (n228; 88.7%) in this study as a strategy that stimulates and maintains students' attention was the lecturers' enthusiasm in teaching. Only 29 (11.3%) of the participants found this strategy lacking. Here, too, the second year students scored a higher level of mean rank 142, the third year scored 115.41, and the fourth years 132.83 when the post-hoc test was applied. This means that second year teachers were found to be more enthusiastic while teaching. When the teacher is more enthusiastic about a topic, the students would then feel more prone to believe that the topic has value to them, meaning the teachers' enthusiasm can motivate the students. Enthusiasm is expressed by facial expressions, body language, describing personal experiences, surprising facts, showing collected artefacts, using humour and putting energy into lesson preparation (Williams & Williams, 2011). However, the teacher should also balance his or her enthusiasm appropriately for the audience (Palmer, 2007; Miss, 2013; Olivia, 2015).

In contrast to the use of positive strategies in stimulating attention during teaching, it was reported that only 100 (38.9%) of respondents said that they always had role-play in learning, whereas 126 (49%) seldom had it, and 31 (12.1%) never had role-play in their learning situation. In this case, the post-hoc test mean score of 119.75 was recorded for the second year students which was lower than the third (130.80) and fourth years (135.47) respectively. This reveals that the third and fourth years had maximum experience in role-plays. This might be due to subjects such as Psychiatry, Community Health, Midwifery, as clinical scenarios call for the use of role-play to assess the nurses' attitude towards patients. In Psychiatry and Midwifery, often admission, interviews, and history-taking of the patients are taught in a role-

play method as an effective teaching strategy. This makes the lessons interesting, participative, more relevant and motivating to the students because it relates to their future employment situation, quality of life and life skills (Peng et al., 2014). However, the importance of using this strategy cannot not be minimised thus lecturers in these levels that do not use it frequently should reconsider their decision. Palmer (2007); Miss (2013); and Olivia (2015), also supports this argument, that model-making and out-of-classroom activities bring variety to learning by creating more interest and meaning. The importance of these findings is that they confirm that students who succeed in their learning, thrives on attention capturing strategies which increases their motivation to learn

5.3.2 Motivating factors that enhance the relevance of the programme to motivate nursing students to succeed.

The second construct of the ARCS model is relevance, and factors that enhance the relevance of the programme to motivate nursing students to succeed were measure. According to the model, (Keller, 2010), if student find learning in a programme or module to be relevant in their own life and future goals, they tend to be motivated. Furthermore, if students can relate to what is being taught to their life or can make associations with something they know, they can get motivated to learn. Hence, it was important to measure if these assumptions applied to the population in this study who continuously succeeded in the nursing programme.

The findings in this study showed that 138 (92.6%) of the students, appreciated the relevance of the nursing content in their life. This implies that students can relate what they learn in class to their daily lived experiences and can probably use the information to improve their wellbeing and of those around them. The finding also revealed that many students' (n252; 98.1%) of the students, perceived the acquired nursing skills as helpful thus relevant. One can assume that these skills are not only perceived to be helpful in the classroom or practical settings but could

be helpful in times of need in one's own life. Hence, the students get eager to learn resulting in success in their studies. Bastable (2016) and Valle et al. (2016), supports these findings by indicating that topics become relevant when the teacher discusses contemporary issues and share personal experiences. Peng et al. (2014) further support these finding by asserting that bringing an interest to the students is depended on the use of information to make proper decisions in real life. Furthermore, as is very important in nursing, and inclusion of more group activities to learn information relevant to life and, thereby, make a difference in the world make learning interesting thus motivate the students to learn (Al-Ghamdi, 2014; Miller, Catherine, Stickler & Wang, 2015). Tasks that are meaningful to the student's life motivate them (Palmer, 2007; Miss, 2013; Olivia, 2015). Bruce, Klopper and Mellish (2011) are of the opinion that by creating interest and familiarity while teaching with proper simulations and co-relating with nursing processes, new skills can be made more interesting with the relevant topic. Hence, a common view is that the teacher must draw out the relevance of the programme and learning content to future employment, quality of life, or life skills to motivate student learning (Peng et al., 2014).

The findings also revealed that most of the students (n255; 97.7%) believed that understanding nursing gives them a sense of accomplishment in life. This is in addition to their perception that learning nursing could help them get a job in the future (n237; 92.2%) and put them in a position they can pursue higher studies (n249; 96.8%). Previous studies made the assertion that the most effective extrinsic motivation for students while studying is the probability of finding a job (Celikoz 2010). Abdul Razzak (2016), indicate that extrinsic motivation is affected by the students' probability of finding a job after graduation, and the future expectations and desires to achieve further academic degrees. Hence, creating relevance serves as a highly relevant mode of teaching (Keller, 2010; Gagne, 1985).

Although there was no statistical significant difference between the year levels, the second and fourth years mostly held the opinion that the nursing content they learn is relevant in their life, and that understanding nursing gives them a sense of accomplishment in addition to their studies having the potential to help them pursue higher degrees. On the other hand, the third-year students scored a lower mean rank on the post-hoc test. While the reason for this difference is not clear, the researcher can only assume that it might be due to the introduction of new discipline streams in the third year which students has yet to find relevant. Bastable, 2016; Valle et al., 2016).

The importance of these findings is that they confirm that students who succeed, look for and appreciate the relevance of the programme to their life and future. The succeeding students are motivated by the strategies that stimulate association with their lived experiences such as case studies and content that is useful over and above the classroom.

5.3.3 Confidence of nursing students in achieving their learning goals and factors that enhance it.

The third construct of the ARCS model is confidence. Keller (2010) believes when teaching strategies and learning environment can build the students' confidence, then the students get motivated to learn and succeed. In this study, the students' confidence and factors that enhance their confidence were assessed.

The findings revealed that 244 (94.4%) and 245 (95.3%) students demonstrated confidence in the ability to complete their assignments on their own as well as complete practical skills independently. This implies that the students in this study displayed a high level of self-efficacy which motivate them to succeed. These finding confirms the adopted model's assertion that the consequence of confidence is motivation to succeed as these population has continuously succeeded in their programme.

With regards to factors that enhances the students' confidence, the students seems to find their confidence when working in groups as most of them (n186; 83.3%) responded positively to their appreciation of being given tasks that involve working with other students and simply liking to work in groups. Stephens (2015), is of the opinion that, when students engage in positive social interaction with their peers or teachers, they become more engaged in learning. This occurs when students work in groups, have discussions, projects and presentations. However, Williams and Williams (2011) and Gallagher (2013), opine that, to appreciate teamwork and its effectiveness in learning, there must be predefined ideas, organised work, and a sustained team spirit. Peer interaction is seen to be satisfying, where it makes the student confident and more motivated to learn. This can also lead to nursing students to have self-confidence in their studies and the other tasks that they perform, in turn, leading them to academic success (Shika & Pravin; 2012; Khalaila, 2015). Therefore, teachers need to set high standards and expectations in the class to achieve more involvement and interaction from students and their peers, which can lead to students developing confidence and responsibility. Interestingly, the appreciation of group work received a higher response than constant encouragement by the teacher (n203; 79.5%) which is often assumed to be more important. One can then assume that students who succeeds confidence is build more by peers than teachers. However, (Gagne, 1985) supports the idea of teacher encouragement by suggesting that, by creating positive expectations for success and enhancing students' belief in their competence, success can be achieved. Therefore, teachers should reduce criticism while working with students, and instead, praise them for their achievements, encourage good virtues and give constant feedback. The nursing students, especially, need to build confidence to understand and perform the acquired knowledge and skills. They must feel as though they can accomplish their learning objectives by receiving constant feedback and encouragement from

teachers. Encouragement from teachers and the institution's offering of external awards and certifications motivates the students and leads to them becoming independent practitioners (Fabella, Vigonte & Molina, 2014).

Although there was no statistical significant difference among groups, the second-year student respondents were seen to be the most confident in the whole group, scoring a mean rank of 138.23, whereas the fourth years scored 120.31. However, in a study conducted by Grant (2012), the first year students indicated that they needed more guidance and support which implied their level of confidence was lower than that of the higher level. In the same study, the third years students reported that they were more pressurised by the quantity of academic work which impacted on their confidence. This occurrence supports the findings of this study where the mean ranking on post-hoc test showed this particular group to score lower than the other year levels.

In practical tasks, it is seen to be the opposite, where the second year mean is reduced to 121.46, whereas the fourth years scored 135.04. This shows that the young students in the second year may not be ready to perform practical tasks independently, whereas the matured fourth-year students show signs of readiness to display their learnt skills in their future career practice, despite not completely sure about their content knowledge. The study by Grant (2012), supports this observation where lower year students showed a limited ability to go beyond the basic understanding of course material, thus inability to apply knowledge in practice independently. The experienced students engaged critically with the contents and developed personal perspectives, which extended across the boundaries of a particular task or lecture series (Grant, 2012).

5.3.4 Satisfaction of nursing students in their learning and factors that enhance satisfaction.

The results of the satisfaction variable analysis showed that all categories of students were satisfied (average score=91%) with the nursing content offered to them and the learning environment. The post-hoc test showed that there was no statistically significant difference among groups. However, a study conducted by Naglaa and Shima (2017) on student nurses' satisfaction, indicates that higher satisfaction was experienced among the older mature participants

The teachers and administrators in the college need to promote positive teaching by putting structures in place that provide an optimal learning environment for students, to bring about their satisfaction in learning. Students should be encouraged to express their ideas, freely participate in discussions, share ideas and learn from each other. This can develop critical thinking and motivation, which leads to academic success and satisfaction (Rugutt & Chemosit, 2009; Louis & Wahlstrom, 2011; Gaol & Hutagalung, 2015). This argument is proved by the interest shown by the fourth years, in-group work. Satisfaction is also achieved by the completion of the learning content, and the learners need to know the applicability of newly learnt knowledge or skills in the real world, to be truly satisfied with the learning programme (Keller, 2010 & Gagne, 1985).

What these findings has shown is that satisfaction with the content and environment among students who succeed, such as this population, motivates students to learn and consequently achieve their goals.

5.4 DISCUSSION OF MOTIVATION

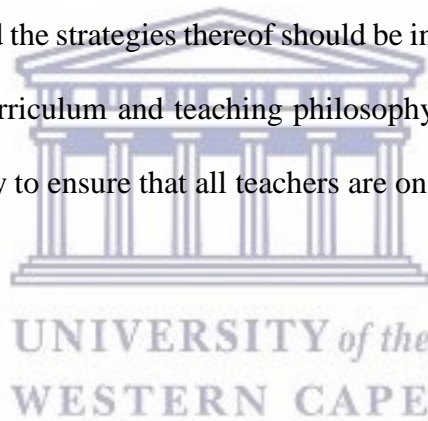
Since the ARCS theoretical framework focuses on the development of students' motivation and the strategies thereof, the researcher felt that it was essential to measure the motivational level of the students in the college. The findings revealed that, the nursing students were more intrinsically motivated as compared to driven by extrinsic factors. Overall, most of the students

(n246; 95.7%) and (n235; 91.4%) responded higher on intrinsic factors “I believe I can improve my professional knowledge through nursing education” and “My poor performance in tasks and tests motivates me to prepare better for next time”. Here, students realise time lost due poor performance means that the student will have to work hard to do better in the next assessment. This study, therefore, proves that failure or poor performance of students in their tasks or tests can motivate them to do better in future. In addition, the findings show that students who succeed in a nursing college can put the spotlight on themselves when they did not perform according to what they should have.

The extrinsic factors although important scored lower than the intrinsic factors among this group. However, students still acknowledged the encouragement role of a teacher and feedback in their motivation. It is well reported in literature that, the teachers’ attitude, praise, encouragement, prompt positive feedback and enthusiasm motivated the students to learn (Palmer, 2007; Keller, 2010; Stephens, 2015; Miss, 2013; Olivia, 2015). Therefore, it is important for teachers of all year levels to motivate their students continuously in their classrooms and clinical areas (Fabella, Vigonte & Molina, 2014). If a teacher provides attention, incentives and trains the students positively, they can become academically successful (Williams & Williams, 2011; Owen, 2015). College students are motivated if the lecturers have humour, good quality teaching and engagement in the class (Weinstein, 2010; Owen, 2015).

When data was extrapolated according to year levels, almost all the respondents (n246; 95.7%) were satisfied with their attainment of professional knowledge through nursing education, however, the second years are seen to be more motivated when receiving prompt feedback on assignments, scoring a 164.62 mean. The second years were also seen appreciate the praises by teachers on their excellent achievement in-class tests. In the previous discussion, it is also seen that the second year teachers are more enthusiastic than the other years, which again

supports the fact that the teachers' enthusiasm, feedback, praise and relevant teaching materials are strong motivators in the learning environment (Gagne, 1985). Previous research also proves that intrinsically motivated students perform better than extrinsically motivated students (Khalaila, 2015; Hanus & Fox, 2015) which in this study, second years students possessed that attribute more than the other groups. All in all, the overall motivation of the students in this study can be associated with all the constructs of the ARCS model in which the students scored high. This study therefore confirms the assumptions of the ARCS models that is the students' attention is stimulated, the study programme is relevant, the students are confident and satisfied with their programme and learning environment, then they become motivated to learn and succeed. What it means is that, in this nursing college, the ARCS model should be adopted as a philosophical framework and the strategies thereof should be included as tenants in the vision and mission as well as the curriculum and teaching philosophy of the institution. These can then be evaluated continuously to ensure that all teachers are on the same page with the vision and mission of the college.



5.5 SUMMARY

In this chapter, the data analysed by descriptive statistics and Kruskal-Wallis was interpreted. Each variable was attended to separately and explored, investigated and interpreted. The research question being "What are the factors that motivate students to succeed in a nursing college?" was well analysed and interpreted. The constructs of the ARCS model which is the corner stone of this study were compared with the students' responses to evaluate if the succeeding students which makes the population of this study confirmed the models' assumptions

CHAPTER SIX

CONCLUSIONS, RECOMMENDATIONS AND STUDY LIMITATIONS

6.1. INTRODUCTION

This chapter, in essence, highlights the critical findings of this study based on the ARCS model in relation to the set objectives. It also makes recommendations to consider in improving the motivational levels and learning environment, as these have a significant impact on the academic success of nursing students. At the end, the study limitations are highlighted.

6.2 OBJECTIVES OF THE STUDY

In order to assess if the study achieved the objectives it set out at the beginning, it was imperative to present them below:

1. To determine the motivating factors that stimulate and maintain the students' attention during learning in a college in the Western Cape
2. To identify factors that enhance the relevance of the programme to motivate nursing students to succeed.
3. To describe the confidence of nursing students in achieving their learning goals and factors that enhance confidence.
4. To describe the satisfaction of nursing students in their learning and factors that enhance satisfaction.

6.3 CONCLUSIONS BASED ON RESEARCH FINDINGS

Students who took part in this study were those who have continuously succeeded in their studies since they were registered in the nursing programme at a college in the Western Cape. Therefore, in assessing the factors that made them succeed, the ARCS model was used as a theoretical framework which grounded the study. This model was chosen because it is problem-solving in nature. The constructs of this model were used to formulate the study's hypotheses which are stated as follows;

H1 (Hypothesis 1) – The factors that keep and maintain the students' attention during learning, and are relevant to their practical context, motivate students to succeed in their learning.

H2 (Hypothesis 2) - Students who are confident and satisfied with their learning programme and environment are motivated to succeed in their learning.

H3 (Hypothesis 3) - The factors that enhance confidence and satisfaction in students, motivate them to succeed in their learning.

Therefore, the conclusions made from the findings will be used to assess if the hypothesis were accepted or rejected.

6.3.1 Motivating factors that stimulate and maintain the students' attention during learning in a college in the Western Cape

The study assessed the factors that stimulate and maintain attention of the nursing students in their quest to learn and success at a nursing college. All the questions asked to determine the factors that stimulate and maintained the students' attention were scored high by many of the students. The lower scores for all the five ranged between 0 and 12%. The seldom rating, which in effect could be interpreted as a poor score also ranged from 5% - 49%. Role play as a strategy was the least used strategy by the teachers as 49% reported that it was not used. Therefore,

understanding the language of instruction, humour, use of visual aids (e.g. videos, PowerPoints etc.) and lecturers' enthusiasm are important strategies/ factors that stimulate and maintain students' attention.

The study make a conclusion that students who succeed in the nursing college observed and appreciated the use of different strategies that stimulated and maintained their attention. As a result, they were motivated to learn and become successful in their studies. This is in spite of the differences that they observed attention stimulating strategies between year levels.

6.3.2 Factors that enhance the relevance of the programme to motivate nursing students to succeed.

The study measured the relevance of the programme and related content as motivators of students to learn and succeed. The majority of the students, at all levels of study, were of the opinion that the nursing content taught is indeed relevant to their lives. In this manner, they are better equipped to get a job and pursue higher degrees in the future. As the learning content was relevant, they are more inclined to be satisfied and to use their information in real life situations, such as the clinical and community environment. This results in rendering a holistic nursing service of high standards. Therefore, in relation to the model, the researcher conclude that the students in this study were motivated to succeed in their leaning because they found the programme and related teaching strategies relevant.

6.3.3 The confidence of nursing students and factors that enhance it as motivators to achieve their learning goals

The study assessed the confidence of these succeeding students in all years of study. Even though most students had the opinion that they were confident in their studies, the results show that second-year students were more independent in doing tasks on their own, rather than group work involvement. On the contrary, the senior third and fourth years preferred group work

tasks more. Perhaps the second years' work content does not require a lot of group work. In addition, the results shows that students' motivation was more intrinsic than extrinsic even though the extrinsic motivation from teachers is still appreciated. In conclusion, there was no statistically significant differences among the year levels with regards to their confidence. Hence, the researcher conclude that students' confidence motivate them and their drive to succeed is derived more from the self as compared to the outside stimuli. Therefore, the study confirm that students who are confident are motivated to succeed, and students who succeed in this nursing college do so due to their internal drive more than the external motivators.

6.3.4 Satisfaction of nursing students with their learning programme and factors that enhances it as a motivator to success.

The study reveals that most of the students were of the opinion that they were satisfied with their learning environment and the course offered to them. The students are motivated to do higher degree studies in the future, as the majority of them also scored 91% for satisfaction. The groups were not happy, however, with their classroom environment as they only scored 71%. However, the students generally high satisfaction is a confirmation that satisfaction motivate students to succeed.

6.3.5 Motivation

This study proved that students who set goals and, thereby, controlled their learning became well-motivated. Most students were motivated to become professional nurses as their first choice. Among them, most were female respondents. This challenges the myth that nursing in its entirety is not a good profession, as many in the study have it as their first choice of profession. The study also proved that the students that set goals are intrinsically motivated and do better, academically. Goal setting in learning gives a better long-term vision and short-term motivation. It helps to acquire knowledge and organise it, and when the resources are available,

one can make the most out of one's life (Shika & Pravin, 2012; Dobronyi, Oreopoulos & Petronijevic, 2017). If students set goals that are important to them, affirm the goal specifically, prioritise what is needed to be achieved and set a timeframe for it, the student can achieve success.

6.4 IMPLICATIONS

If lectures take lengthy lectures in a classroom, it diverts a student's attention and interest as it can bring boredom to the students, resulting in poor retention of attention. Hence, the application of audio-visual aids can explain certain topics in a short time with more significant impact than long lectures. A regular lecture might not stimulate critical thinking in students in the same way that group-teaching methods do, where the students interact, discuss and think critically to solve a problem.

While teaching, teachers need to use relevant and contemporary topics in the classroom, such as personal experiences and real-life situations to bring about interest and meaning to topics. If this is not done, a student could feel that learning is of no use in making a difference in real life situations. If there is no relevance in what is taught, the student could feel insecure about future job opportunities or further studies in life. If the students are not well-motivated, they might not achieve relevance in learning or improvement in learning outcomes, resulting in reduced academic performance.

If the student does not understand what is being taught, due to language problems or being part of large groups, confidence in learning is affected. The unhealthy competition among peers could also lead to a lack of confidence. Some students may experience sarcastic responses from teachers instead of genuine motivating statements, which could lead them to develop a lower confidence level in class. Hence, they lose interest in participating in tasks and may become unsure and lack the confidence to work alone, which affects classwork as well as the confidence

to do tasks in the clinical area with regard to the nursing field. Such a student could alienate him or herself from group work which could, otherwise, have given them critical thinking skills and better academic performance, as seen in the 4th year group in this study.

Student satisfaction is affected when the course content lacks quality, which could result in learning being futile for students. The physical environment of the classroom, with inadequate furniture, ventilation, computers, a noisy environment and unhealthy peer pressure could result in dissatisfaction among students in the classroom. Above all, the teachers' negative attitude or comments towards students, lack of support and use of inadequate teaching strategies could also lead to dissatisfaction among students. If the student is not oriented to the curriculum content at the beginning of the year, one might see a decline in the academic performance of the nursing school, as a whole.

There should be intrinsic and extrinsic motivation among students in the learning environment. If the teacher lacks a positive attitude and fails to praise and encourage, the student, in turn, will lack in performance, interest and enthusiasm. If the college does not motivate students with certificates, trophies or bursaries for their academic achievement on a yearly basis, students can become demotivated. This could ultimately affect their enthusiasm to study further.

It is also seen that goal setting and motivation is inter-related. As a student, goals are intrinsically motivated, and it is, therefore, important to continually set goals and monitor timeframes and achievement. If teachers do not assist the students to achieve smaller goals or motivate them towards these goals, it becomes difficult for certain students to achieve their goals, as some of them are slow learners due to their poorer cognitive power. A large classroom environment can affect learning. It interferes with a student's listening, attention, interaction

and teachers could find it difficult to apply effective teaching strategies, such as role-plays and discussions.

In conclusion, the researcher makes an assumption that when the students' attention is stimulated, the study content becomes relevant. If they are confident in themselves and their teachers (including the ability to set their own goals), and they are satisfied with their teaching and learning (which include having a motivating learning environment); then the students will succeed.

6.5 RECOMMENDATIONS

Teachers have to improve in encouraging students and bring humour into the classroom environment, as both these factors motivate the student and bring about attention while teaching, resulting in active participation in the classroom.

More group work can be used in all years of study, as they improve the command of the language, communication and critical thinking. This would help motivate students, which is paramount in nurses' learning.

Even though most students are getting satisfactory feedback from teachers, some still lack sufficient feedback. Feedback is critical for a student to achieve the desired academic performance and it can be given on a one-on-one basis or to a group, regarding assignments, tests and examinations. It can be feedback on mistakes, incorrect interpretation of questions, or for merely revising work. Lecturers should discuss the methods of feedback in advance to ensure consistency, and to bring about maximum improvement in outcomes. Feedback should be given to both weak and competent students, balancing between positive and negative comments. Feedback can be given through oral or written methods, where students are free to ask questions.

Nursing students are isolated in colleges and, therefore, need to be integrated into being a part of higher education and the overall student population. The nursing student needs to be exposed to main campus activities, such as sports and debates so that they can experience how other academics communicate and cope with studies. This helps to develop interaction, competitiveness and socialisation. Such a student can become motivated and become a better academic performer.

Teachers need to ensure that the nursing content taught to students is relevant to the students' future so that they are equipped with resources necessary to thrive in their careers and further studies. Teachers also need to try and remove feelings of fear and anxiety from students to help them gain confidence in their skills and abilities. This can be done through maintaining a positive and encouraging learning environment and introducing students to successful peers. To achieve satisfaction among learners, teachers and the institution should constantly motivate students extrinsically by introducing award systems such as trophies, certificates and bursaries aimed at recognising students' academic achievements.



Teachers need to uphold their professionalism by attending workshops and in-service training to develop themselves. The college can utilise a 'best teacher' award system to motivate teachers and uphold the quality of teaching. The evaluation of teaching and the classroom environment in the college from students can be measured and assessed as they are, after all, the institution's clients. This is supported by Humphrey (2008) and Polifroni (2008). Academic support has the most significant effect on academic performance and, therefore, students should be given sufficient content assistance, and lecturers need to be available for consultation outside the classroom (Chakravarthi, Nagaraga & Judson, 2010). The teachers need to have a laptop, data projector and IT support in the academic institution to bring in a good set of

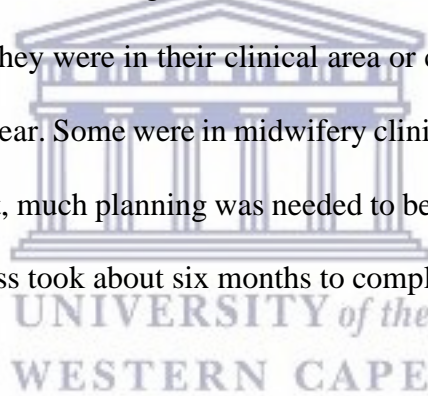
standards and overall quality of teaching. Students must have a 24-hour computer laboratory and IT support to bring about an improvement in technology for nursing education, as this study proves that creating curiosity and interest through various technological teaching aids motivates students (Keller, 2010). Teachers should avoid large classes, and encourage small groups with interaction, teaching strategies and group activities which can bring better results, academically. Teachers should also encourage E-learning among students and allow for the provision of in-services to teachers and clinical instructors to uphold professionalism and encourage research. Provision of funding needs to be present for teachers to enhance themselves as competent professionals and to complete further education.

6.6 FURTHER RESEARCH

- The impact of group learning in nursing education and its effect on critical thinking and academic performance needs to be researched, as this study proves that most senior students took a liking towards group work, whereas junior students did not. The reasons behind this contradiction needs to be well-established.
- Further studies aimed at identifying the motivators of confidence in younger nursing students need to be conducted since junior students were seen to be more independent in doing their assignments. However, they were not as confident in exercising their practical skills. It is also essential to look into strategies that can allow teachers to build independence and confidence in nursing students.
- The role of technology in young nursing students and its impact on developing an interest and curiosity needs to be elucidated. The role of teaching aids such as videos, games and simulations in the pedagogical aspect of nursing education and its effect on motivation and academic success, therefore, needs to be further explored.

6.7 LIMITATIONS OF THE STUDY

- The students were in a hurry as the time for data collection allocated by the lecturers was always before tea, lunch break or before the last class in the afternoon. Respondents were, therefore, rushed and impatient, and this made it inconvenient for the researcher to collect data on many occasions. It is important to note, however, that no student had a problem with the language used in the questionnaire, and all students finished answering their questionnaires within the allocated time.
- Data collection was challenging at times as the second, third and fourth-year students were in different areas and they were in different groups. This meant that specific groups were available in the college for data collection, whereas the other group was not available because they were in their clinical area or community clinics at different times allocated in the year. Some were in midwifery clinical areas, others in psychiatric placements. As a result, much planning was needed to be fair to each group at different months thus this process took about six months to complete.



6.8 CONCLUSION

The section reported on the conclusions reached per the objectives and the ARCS model. The implications of the results and recommendations were made. The study limitations were also highlighted. At the end, the study concluded that;

H1 (Hypothesis 1) – The factors that keep and maintain the students' attention during learning, and are relevant to their practical context, motivate students to succeed in their learning.

Conclusion: Hypothesis was confirmed.

H2 (Hypothesis 2) - Students who are confident and satisfied with their learning programme and environment are motivated to succeed in their learning.

Conclusion: Hypothesis was confirmed.

H3 (Hypothesis 3) - The factors that enhance confidence and satisfaction in students, motivate them to succeed in their learning.

Conclusion: Hypothesis was confirmed.

Therefore, the researcher concludes that the aim of the study and the set objectives were achieved.



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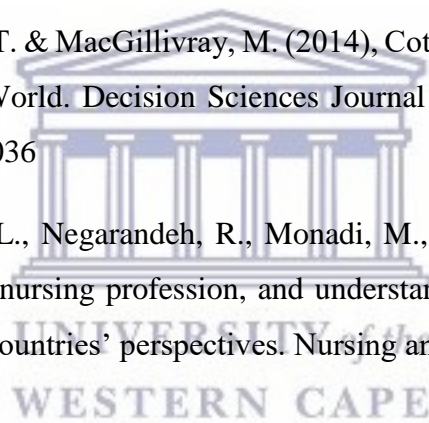
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APPENDIX 1: INFORMATION SHEET



UNIVERSITY OF THE WESTERN CAPE

Private Bag X 17, Bellville 7535, South Africa

Tel: +27 21-959 9532, Fax: 27 21-959 2679

E-mail: babubeenarsa@yahoo.co.uk

CONSENT FORM

Project Title: Factors That Motivates Student To Succeed At a Nursing College In The Western Cape.

What is this study about?

This is a research project being conducted by Mrs Beena Abraham at the University of the Western Cape. We are inviting you to participate in this research project because you as nursing students are the focus of this study. It is therefore important to gather information about your learning experience. The purpose of this research project is to investigate the factors that motivate nursing students to succeed. Your input as nursing student is vital to measure in order to find out what it is that motivates you to learn better.

What will I be asked to do if I agree to participate?

You will be asked to fill in a questionnaire during your free time at the college. This will take about thirty minutes. The questions in the questionnaire are mainly about what make you as a student interested in learning and doing well in your work.

Would my participation in this study be kept confidential?

We will do our best to keep your personal information confidential. To help protect your confidentiality, your name and student number will not be written, but instead, a code will be written, and all the information will be locked away in a safe place. Only the researcher will have access to the questionnaires. If we write a report or article about this research project, your identity will be protected to the maximum extent possible.

What are the risks of this research?

There are limited risks associated with participating in this research project and that might concerns your open view about the teaching in the college. However, should you experienced any form of threat after participating in the study, mitigation processes and counselling will be made available to you. All your information will remain confidential and the questions asked are not anything too personal.

What are the benefits of this research?

This research is not designed to help you personally, but the results may help the investigator learn more about the things that make you interested in learning and the benefits that you might attain by working towards your goals. We hope that, in the future, other people might benefit from this study through improved understanding of better strategies in learning and teaching

The anticipated benefits to science or society expected from this research

This research aims at improving nursing education which will result in attaining standard nursing care for all communities.

Do I have to be in this research and may I stop participating at any time?

Your participation in this research is completely voluntary. You may choose not to take part at all. If you decide to participate in this research, you may stop participating at any time. If you decide not to participate in this study or if you stop participating at any time, you will not be penalized or lose any benefits to which you otherwise qualify.

Is any assistance available if I am negatively affected by participating in this study? The college psychologist for students and college doctor will be assisting you.

What if I have questions?

This research is being conducted by Mrs Beena Abraham, Faculty of Community and Health Sciences School Of Nursing at the University of the Western Cape. If you have any questions about the research study itself, please contact Mrs Beena Abraham at: Western Cape College of Nursing, Athlone. Cell.0722760340, email: babubeenarsa@yahoo.co.uk

Should you have any questions regarding this study and your rights as a research participant or if you wish to report any problems you have experienced related to the study, please contact:

Head of Department: Prof Karien Jooste
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7535
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(021)959 2274

Dean of the Faculty of Community and Health Sciences: Prof J Frantz
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APPENDIX 2: PARTICIPANTS' INFORMED CONSENT FORM



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E-mail: babubeenarsa@yahoo.co.uk

CONSENT FORM

Title of Research Project: Factors that Motivates Students to Succeed at a College in the Western Cape

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:

Study Coordinator's Name: Prof D R Phetlhu

University of the Western Cape

Private Bag X17, Belville 7535

Telephone: (021)959-9532

Cell: 0721107290

Email: dphetlhu@uwc.ac.za

APPENDIX 3: DATA COLLECTION INSTRUMENT (QUESTIONNAIRE)

QUESTIONNAIRE

SECTION A

DEMOGRAPHICS

PLEASE MARK THE ANSWERS WITH AN X

1. At which age did you start this nursing course?

1	17 Years	
2	18 Years	
3	19 Years	
4	20 Years	
5	Other: Please specify	

2. Gender

1	Female	
2	Male	

3. Home language

1	English	
2	Afrikaans	
3	Isixhosa	
4	Other: Please Specify	

4. Nursing as your career choice

1	First Choice	
2	Second Choice	
3	Third Choice	
4	Fourth Choice	
5	Other: Please Specify	

5. Why did you choose nursing as a career?

1	I always wanted to be a professional nurse	
2	Nursing is a secure job	
3	Bursary is available which pays for the training	
4	I was not get accepted for any other career	
5	Other: Please Specify	

6. What year of study are you currently in?

1	First year	
2	Second year	
3	Third year	
4	Fourth year	

SECTION B

FACTORS MOTIVATING SUCCESSFUL LEARNING FOR NURSING STUDENTS

Please mark the answer with **X**

ATTENTION

1. I understand the language used in my lectures well.

Always	Most Times	Seldom	Never
1	2	3	4

2. There is humour in the way the lectures are given.

Always	Most Times	Seldom	Never
1	2	3	4

3. Visual aids (e.g. videos, Power Points etc.) are used in the lectures.

Always	Most Times	Seldom	Never
1	2	3	4

4. The lecturers are enthusiastic in teaching.

Always	Most Times	Seldom	Never
1	2	3	4

5. Role-play is used during lectures.

Always	Most Times	Seldom	Never
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1	2	3	4
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RELEVANCE

6. The nursing content I learn is relevant to my life.

Always	Most Times	Seldom	Never
1	2	3	4

7. The nursing content I learn will be helpful to me.

Always	Most Times	Seldom	Never
1	2	3	4

8. Understanding nursing gives me a sense of accomplishment in life.

Always	Most Times	Seldom	Never
1	2	3	4

9. Learning nursing could help me get a good job in the future.

Always	Most Times	Seldom	Never
1	2	3	4

10. This study can help me to pursue higher studies.

Always	Most Times	Seldom	Never
1	2	3	4

CONFIDENCE

11. I am able to complete assignments on my own.

Always	Most Times	Seldom	Never
1	2	3	4

12. I am able to complete practical skills on my own.

Always	Most Times	Seldom	Never
1	2	3	4

13. I appreciate it when my teachers give me tasks that involve working with other students.

Always	Most Times	Seldom	Never
1	2	3	4

14. I like to do tasks with other students.

Always	Most Times	Seldom	Never
1	2	3	5

15. My teachers are constantly encouraging me.

Always	Most Times	Seldom	Never
1	2	3	5

16. I am often criticised in the class.

Always	Most Times	Seldom	Never
1	2	3	5

SATISFACTION

17. I have experienced a new learning environment through nursing education.

Always	Most Times	Seldom	Never
1	2	3	5

18. I feel that this course serves my needs well.

Always	Most Times	Seldom	Never
1	2	3	5

19. I feel that I want to learn more by studying higher degree nursing.

Always	Most Times	Seldom	Never
1	2	3	5

20. I am satisfied with the learning content offered by the college.

Always	Most Times	Seldom	Never
1	2	3	5

21. I am satisfied that the classroom environment is conducive to learning.

Always	Most Times	Seldom	Never
1	2	3	5

MOTIVATION

22. My teachers give prompt feedback on assignments.

Always	Most Times	Seldom	Never
1	2	3	5

23. I believe I can improve my professional knowledge through nursing education.

Always	Most Times	Seldom	Never
1	2	3	5

24. I believe I can improve my skill through nursing education.

Always	Most Times	Seldom	Never
1	2	3	5

25. I am praised by teachers on my good achievements in tests and tasks.

Always	Most Times	Seldom	Never
1	2	3	5

26. My poor performance in tasks and tests motivate me to prepare better for next time.

Always	Most Times	Seldom	Never
1	2	3	5

APPENDIX 4: CRONBACH'S ALPHA STATISTICS

4.1 Attention Cronbach's Alpha Statistics

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
.606	.615	5

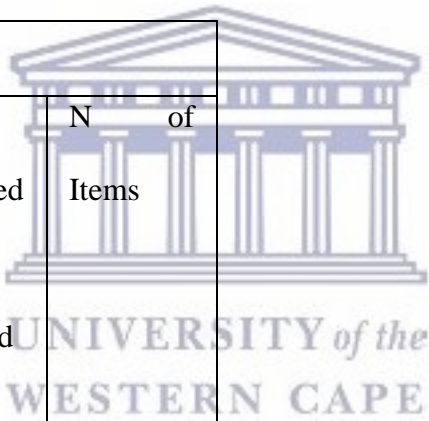
4.2 Attention Cronbach's Alpha Analysis

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
I understand the language used in my lectures well	8.22	4.400	.343	.144	.565
There is humour in the way the lectures are given	7.61	3.770	.414	.181	.522

Visual aids are used in the lectures	8.03	3.941	.418	.180	.524
The lecturers are enthusiastic in teaching	7.81	3.663	.339	.119	.569
Role-play is used during lectures	7.04	3.920	.317	.119	.577

4.3 Relevance Cronbach's Alpha Statistics

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
.713	.720	5



4.4 Relevance Cronbach's Alpha Analysis

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted

			Correlation		
The nursing content I learn is relevant to my life	5.47	2.813	.418	.274	.688
I think about how the nursing I learn will be helpful to me	5.74	2.842	.551	.395	.637
Understanding nursing gives me a sense of accomplishment in life	5.77	2.800	.561	.350	.632
I think about how learning nursing could help me get a good job	5.60	2.616	.461	.250	.673
This study can help me to pursue higher studies	5.74	3.014	.394	.219	.694

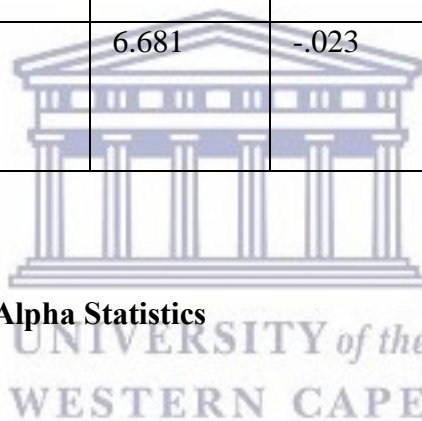
4.5 Confidence Cronbach's Alpha Statistics

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
.561	.558	6

4.6 Confidence Cronbach's Alpha Analysis

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
I am able to complete assignments on my own	11.11	6.530	.148	.206	.570
I am able to complete practical skills on my own	11.03	5.913	.368	.255	.500

I appreciate it when my teachers give me tasks that involve working with other students	10.60	4.234	.580	.634	.355
I like to do tasks with other students	10.47	4.422	.529	.598	.389
My teachers are constantly encouraging me	10.69	5.456	.296	.133	.519
I am often criticised in the class	9.14	6.681	-.023	.031	.662



4.7 Satisfaction Cronbach's Alpha Statistics

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
.669	.675	5

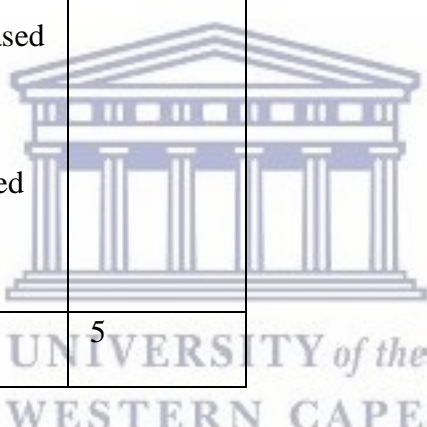
4.8 Satisfaction Cronbach's Alpha Analysis

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
I have experienced a new learning environment through nursing education	7.03	4.222	.418	.214	.621
I feel that this course serves my needs well	6.92	3.958	.486	.256	.590
I feel that I want to learn more by studying higher degree nursing	7.13	4.092	.429	.202	.615
I am satisfied with the learning content offered by the college	6.67	4.003	.422	.190	.618

I am satisfied that the classroom environment is conducive to learning	6.53	3.797	.377	.160	.646
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4.9 Motivation Cronbach's Alpha Statistics

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
.554	.613	5



4.10 Motivation Cronbach's Alpha Analysis

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
My teachers give prompt feedback on assignments	6.34	3.584	.480	.483	.400
I believe I can improve my professional	6.59	3.789	.643	.498	.360

knowledge through nursing education					
I believe I can improve my skills through nursing education	6.11	4.215	.084	.124	.672
I am praised by teachers on my good achievements in tests and tasks	6.24	3.848	.316	.231	.499
My poor performance in tasks and tests motivates me to prepare better for next time	6.53	4.367	.250	.112	.533



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APPENDIX 5: ETHICAL CLEARANCE TO CONDUCT STUDY



UNIVERSITY of the
WESTERN CAPE

OFFICE OF THE DEAN

DEPARTMENT OF RESEARCH DEVELOPMENT

30 January 2015

To Whom It May Concern

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

Research Project: Factors that motivate students to succeed at a nursing college in the Western Cape

Registration no: 14/10/53

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: +27219592988/2948. F: +27219593170

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c.za

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APPENDIX 6: PERMISSION FROM COLLEGE OF NURSING



DIRECTORATE: WESTERN CAPE COLLEGE OF NURSING
Theresa.Bock@westerncape.gov.za

Enquiries: Ms T M Bock

Date: 2015/03/06

Me Abraham

Faculty of Community and Health Sciences School of Nursing
University of the Western Cape

WCCN INTERIM RESEARCH ETHICS COMMITTEE

Your application for the research project titled: "***FACTORS THAT MOTIVATE STUDENT TO SUCCEED AT A NURSING COLLEGE IN THE WESTERN CAPE.***", refers.

The Research ethics committee grants the necessary approval and advises you to contact the Head of Campus at Metro West to make the necessary arrangements to do your data collection.

The Research Ethics committee wishes you all success in this research project.

Sincerely

A handwritten signature in black ink, appearing to read "TM Bock". The signature is written in a cursive style.

TM Bock

Acting Chair WCCN Research Ethics