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**ASSESSMENT OF STUDENT SATISFACTION ON INSTITUTIONAL FACTORS
INFLUENCING STUDENT RETENTION IN ONE COMPREHENSIVE UNIVERSITY IN
THE EASTERN CAPE PROVINCE OF SOUTH AFRICA**

BY

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**A THESIS SUBMITTED IN FULFILMENT OF THE REQUIREMENTS FOR THE
DEGREE OF DOCTOR OF PHILOSOPHY IN EDUCATION**

**AT THE
UNIVERSITY OF FORT HARE**

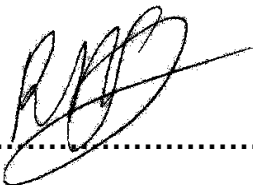
2017

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DECLARATION

I hereby solemnly declare that, to the best of my knowledge and belief, the thesis titled **“Assessment of student satisfaction on institutional factors influencing student retention in one comprehensive university in the Eastern Cape province of South Africa”** is my original work. It has not been submitted to any other institution of higher learning for the awarding of any degree or qualification. In those instances in which I have made use of either the published or unpublished works of other scholars, I have acknowledged the sources, both in the text and in the list of references appended to this thesis.

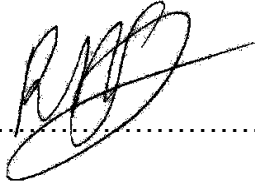
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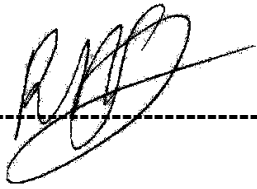
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ABSTRACT

In all higher education institutions across the world, the student retention and success is an issue of concern and a pressing one. Students invest heavily in their higher education, while institutions in turn, lose a considerable sum of money for each student that drops out due to dissatisfaction with institutional services.

The purpose of this quantitative methods research study, employing a survey design, was to assess student satisfaction with institutional factors that influence student satisfaction in higher education. The research questions focused on student satisfaction factors namely; academic advising, academic support, teaching approaches, assessment techniques, learning facilities, student funding services, student accommodation and administrative services. The study used structured questionnaire, with Likert scale type of question items, to collect data from the respondents. These were hand delivered to 650 students in four campuses of the selected university. SPSS was used for data analysis. Major findings revealed that the selected institutional factors significantly impacted on student satisfaction, and their decisions to stay within the institution. Based on the results of the study, a framework to assist the institution ensure that students are receiving the services that they need from the institution as early as possible, was proposed.

The study provided therefore the useful data for institutions to use in their quality enhancement activities. The result of the study can be incorporated into enrolment management planning and the intervention strategies, to improve the success of students at the selected institution in Eastern Cape.

KEYWORDS

Academic advising, academic support, assessment techniques, learning facilities, retention, student accommodation, student administrative services, student funding services, student satisfaction and teaching approaches.

DEDICATION

This dissertation is dedicated to my late husband Rev. Phumzile Isaac Stofile. His consistent encouragement, support, understanding, patience, and love, provided me the opportunity to take on and complete this life changing task. Growing is not easy but you've made my growth to be more enjoyable because of your kind and gentle nature; and for that, I will always remember you until we meet again. May your soul rest in peace, love.

I also dedicate this dissertation to my children; Sibulele, Sinesipho and Hlumelo who gave up three years of their days, nights, and weekends with their mother, so she could accomplish her dream. From now on, I can help them follow their dreams.

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Finally, praise God from whom all blessings flow!

LIST OF ACRONYMS AND ABBREVIATIONS

AAI – Academic Advising Inventory
ALGs – Accelerated Learning Groups
CAS – Council for Advancement of Standards
CHE – Council of Higher Education
CRM – Customer Relationship Management
ESP – Emerging Scholars Programmes
FAFSA – Free Application for Federal Student Aid
FET – Further Education and Training
HE – Higher Education
HEI – Higher Education Institution
HESA – Higher Education South Africa
HGHE – Health Gilmore Higher Education
HSRC – Human Science Research Council
JISC – Joint Information System Committee
MDG – Millennium Development Goal
NAO – National Audit Office
NBTs- National Benchmarking Tests
NSFAS – National Student Financial Aid Scheme
PBL – Problem Based Learning
QEP – Quality Enhancement Plan
SA – South Africa
SAQA – South African Qualifications Authority
SI – Supplementary Instruction
SLA – Structured Learning Assistance
STP – Supplementary Tutorial Programmes
UK – United Kingdom
USA - United State of America

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CHAPTER ONE

ORIENTATION AND BACKGROUND

1.1 INTRODUCTION

In all higher education institutions across the world, student retention and success is a pressing issue of concern. Students invest heavily in their higher education while institutions in turn, lose a considerable sum of money for each student that drop out. The importance of student retention in South Africa (SA), is one of the key performance indicators for educational quality and in the allocation of the government fund (Strydom, Kuh & Mentz, 2010).

Having considered the above, Berger and Lyons (2004), as cited by Viljoen and Deacon (2013), define student retention as an institution of higher education's ability to retain students from admission until graduation. Jones (2008) defines retention as the extent to which learners remain within a higher education institution and complete a programme of study in a pre-determined period of time. It is also noted that student retention and graduation are closely linked, and therefore, there is need to investigate students' intention to stay at their respective institutions, as this is predictive of students' graduation status (Allan & Robbins, 2008). Retention comprises efforts and strategies to anticipate and identify student needs, prior to enrolment.

What can be deduced from the concepts of the student as a customer and institution as a supplier are not new. Students could be regarded as customers of the Higher Education Institution (HEI) at which they are enrolled. However, it is argued that this supplier/customer relationship is not as clear cut as that of other service relationships, given that students are also partners in the learning process (Douglas, McClelland & Davis, 2008). Higher education institutions should understand that student retention is

a responsibility shared by both higher education institution and its students (Tinto, 2006).

1.2 BACKGROUND TO THE STUDY

Retention and attrition rates in higher education have long been the focus of research across the world. The United Kingdom (UK) for the past decade embarked on both increasing and widening participation to include more students from groups that had been less represented in higher education, while maintaining or improving student retention (HEFCFE, 2006). There has been tension between investing in increased participation of marginalized groups and the reality of students from many low participation groups being less likely to complete their courses because the students from many low participation groups tend to be less likely to complete their courses. For example, drop-out rates from Higher Education (HE) after one year of study are considerably higher for mature students and students from neighbourhoods, in which there is low participation (HESA, 2004, 2007). It has been further noted that there is considerable variation in retention rates of individual higher education institutions internationally. While some institutions have first year drop-out rates in low single-digit figures, others have rates of more than 30 percent for underrepresented groups (HESA, 2004).

Against this background, the National Audit Office (NAO) has undertaken a value-for-money study on student retention on higher education courses in England. As part of this value-for-money study, the NAO has commissioned Research and Development (RAND) in Europe to undertake an international comparison of student retention rates and policies across four countries, namely; Australia, Ireland, the Netherlands and United States. Among the objectives of this international comparison, were to provide the definitions of non-continuation, and analyze the rates of student-non-continuation on higher education courses over the past ten years, provide conclusions on the effectiveness of the approaches to student retention in the four countries, and to establish what lessons were transferable to the UK to inform approaches in this area (Van Stolk, Tiessen, Clift & Levitt, 2007).

Van Stolk et al.'s (2007) research findings on four cases echoed Tinto's view that student retention can be improved through the application of initiatives focusing on academic and social integration of students in higher education. Similarly, in the United States of America (USA), there has been in-depth consideration of reasons for student non-completion of higher education courses. A more recent survey undertaken by the Gates Foundation in the USA, explored the 'myths and realities' of why institutions experience high departure rates (Pocock, 2012). The findings of the survey suggest that many students do not finish degrees because of financial pressures and the stress of having to work and study at the same time; that students who did not specifically choose their institution have a higher probability of non-completion; and that although many students realise that leaving with a diploma rather than a degree will assist them in the future, they may not fully recognise the impact that departure may have on their future (Pocock, 2012).

Tinto (1993, 2000), working in the USA, developed a framework that considers students' pre-entry attributes and their own aspirations as possible predictors of success and retention. Tinto investigated how students' background attributes and their own goals impacted on persistence, a key disposition which was likely to lead to successful completion.

Heath Gilmore Higher Education (HGHE) (2009) reports that, approximately one in five first year students in Australian universities drop out before the end of the first year. Southern Cross University had three out of ten students dropping out, whereas the University of Sydney and University of New South Wales had only 11 percent dropping out as reported by HGHE. It is believed that dissatisfaction with subjects, financial hardship, poor performance, and the opportunity to upgrade to a better institution contributed to students dropping out, according to HGHE. HGHE reports that experts considered improved guidance on course choices, greater customised care, and offering general studies in the first year, would help students adjust to university life.

In the African context, the challenges of student retention manifest themselves differently from the developed world. African higher education institutions cannot keep

pace with their counterparts in developed countries, in relation to competition and internalization of higher education (Negash, Olusola & Collucci, 2010; Charl, Wolhuter, Alexander & Wiseman, 2013). The retention in African universities is greatly influenced by underdevelopment and poverty, which is linked to the commitment that African universities have towards meeting the Millennium Development Goals (MDG) of increasing and widening participation rates (Negash, et al., 2010).

Negash's survey was conducted in 32 universities in 16 African countries to establish access, participation and retention patterns and causes (Negash, et al., 2010). The findings revealed that African universities were lagging behind their counterparts in terms of financing higher education. Participation rates were very low, particularly in Sub-Saharan Africa; with 5% of age group participation rate in higher education as compared to 20% worldwide. It was noted that universities were incapacitated in terms of resources and finances, and that there was need to collaborate with developed nations in order to promote higher education in Africa.

Common variables that influence attrition in African universities have been identified as poor preparation and commitment, mismatch of area of interest and field of placement, poor social integration, and lack of appropriate instructional and assessment methods. Reasons for limited retention include oversized classrooms, lack of staff capacity in terms of number and qualifications, and poor quality of education (Negash, et al., 2010).

In South Africa, higher education institutions have experienced many changes in terms of their structuring, funding and student numbers. Recent changes included various mergers and the transformation of technikons into universities of technology. This transformation has, not only brought about a change of status in these institutions, but also the merger of completely different institutions. The broadening of access to higher education in South Africa, under the present government policy, has seen a growth in the number of applications to tertiary institutions (Gbadamosi & Jager, 2009). Because of that, South Africa has experienced a revolution regarding the increase in the number of black student enrolment for tertiary education, with the majority of the students being

black since the middle 1990s. These are all changes that have given rise to the need for re-considering strategies employed in higher education.

According to Subotzky (2011), student retention in South Africa is a pressing and topical issue for a number of reasons. First, the majority of the students are severely underprepared for higher learning. Underprepared students have limited access to higher education, and those who access higher education do not progress well, hence; institutions are faced with the challenge of implementing effective interventions to ensure that students support mechanisms are in place, and are monitored. Student underpreparedness is mainly the consequence of the ongoing legacy of apartheid and the predominantly substandard primary and secondary education system in South Africa. After 15 years of democratic rule, the post-apartheid government has been unable to rectify existing inequalities and inefficiencies significantly. Most students hail from disadvantaged backgrounds and face challenging socioeconomic and financial circumstances that, in combination, threaten student retention. The challenge of low retention rates still persists in South African institutions.

In 2005, the Department of Education Directorate on higher education planning reported that, of 120 000 students who enrolled in higher education in 2000, 36 000 (30%) dropped out in their first year of study. A further 24 000 (24%) dropped out during their second and third year of study. Of the remaining 60 000 (50%), fewer than half (22%) graduated with generic bachelor degree (DoE, 2005). Letsaka and Maile (2008) of the Human Science Research Council (HSRC) reported that the South African university graduation of 15 % was one of the lowest in the world. The council reported that two factors contributed to S.A dropout rate, namely; lack of information and lack of finance.

According to Scott (2007:2), about 25 percent of first time university-entering South African students exit before, or by, the start of their second year, 30 percent pass under 50 percent of their first-year subjects, and only 21 percent graduate in minimum time. In a more recent report that represents all 23 public universities and universities of technology; released by Higher Education South Africa (HESA), it was reported that the

dropout rate had escalated alarmingly in recent years and was reaching highs of up to 35 percent at some universities (HESA, 2009). A study by MacGregor (2007) revealed that 40% of South African students dropped out of university in their first year. The study also reported that financial difficulties were largely to be blamed for such high rates. Another study by Nair, Reddy and Raimalla (2009), in one comprehensive university, highlighted that the root of student failure and dropout was related to social and academic factors, as well as an inadequately equipped school system.

At this point, it is important to understand the reasons for drop out. Several interrelated factors account for student drop out in higher education, some of which are beyond institutions' control like: poor preparation for higher education, weak institutional/course match resulting in poor fit and lack of commitment, unsatisfactory academic experience, lack of social integration, financial issues and personal circumstances (Crosling, Heagney & Thomas, 2009). Internationally, a variety of strategies have been instituted to address and improve retention statistics (Fowler, 2003). These include issues such as reviewing admissions policies, providing career planning and counseling, learning assistance programmes, instituting financial aid and orientation programmes, improving academic advising and learning assistance programmes, and providing residence halls and student activities. Tinto (2005) noted that integrative college experiences increase the likelihood of student persistence to degree completion. According to him effective learning happens in conducive environment and therefore to improve student retention and graduation rate, universities need to pay attention to improving learning environment.

Higher education institutions are forced to take care of student satisfaction because of its potential impact on student motivation, retention, recruitment efforts, and fundraising. Given the above discussions, the study intends to assess student satisfaction on institutional factors affecting student retention in higher education institutions. The researcher is of the view that if students are satisfied as a result of these factors being managed and taken care of, student retention is enhanced, which can lead to higher rates of graduation.

1.3 STATEMENT OF THE PROBLEM

Improving student pass rates and success whilst maintaining a high enough standard is a big challenge, because South African universities are generally committed to giving access to all students, including those that have emerged from a disadvantaged schooling system (Zewotir, North & Murray, 2011). Student enrolments have grown from 473 000 in 1993 to 799 388 in 2008. The enrolment has further grown from 799 388 in 2008 to 953 373 in 2012. Plans are afoot to ensure an enrolment target of 1 620 000 target is achieved in 2030 as expressed in the National Development Plan. This is shown in Table 1.

Table 1-1: Number of students enrolled by major field of study in 2012

YEAR	Science engineering and Technology		Business and Management		Humanities	
	ENROL.	GRAD	ENROL	GRAD	ENROL	GRAD
2010	251 334	42 760	268 843	41 657	362 749	68 907
2011	264 447	46 100	288 487	44 155	385 266	70 363
2012	273 282	48 848	282 299	46 042	397 792	71 096

Source: 2012 Hemis data extracted in October 2013

The graduation rates in HEIs are generally lower than those set by the National Plan for Higher Education (DoE, 2001). The benchmark has been set at 25% for undergraduates and 20% for Doctoral degrees. In 2012, 70 742 students graduated with undergraduate degrees, while 49 654 students graduated with certificates and diplomas. In the same year, 10 334 Master's degrees and 1 878 doctoral degrees were awarded. The average graduation rate for doctoral students stood at 13%, while that for Masters students and undergraduate degree and diploma students was 21% and 15% respectively. The enrolment and graduation figures for the selected university in the Eastern Cape are shown in Table 1.2. The figures show that the graduation rate was below the target benchmark of 25% set by the National Plan of Higher Education.

Table 1-2: Cohorts year 2007 for the selected Comprehensive university in the Eastern Cape

Entering Term	1st Year	2nd Year	3rd Year	4th Year	5th Year
	2007	2008	2009	2010	2011
2007 Baseline Enrolment	24,652	24,652	24,652	24,652	24,652
Enrolments (Retained)	21,545	11,392	6,758	3,907	1,701
% Enrolments	87%	46%	27%	16%	7%
Stop-outs (included in Enrolments)	0	830	895	635	493
Drop-outs	0	7,030	2,415	1,164	1,276
% Drop-outs	0%	29%	10%	5%	5%
Cumulative Drop-outs	0	7,030	9,422	10,567	11,835
% Cumulative Drop-outs	0%	29%	38%	43%	48%
Graduates	3,107	3,128	2,243	1,714	941
% Graduates	13%	13%	9%	7%	4%

Source: HEMIS Data

The levels of student attrition remain unacceptably high, with the graduation rate ranging from 4% and 13% which is far below a set benchmark. The Council of Higher Education CHE (2001) reports that South Africa is experiencing large numbers of student drop out from the system each year, especially with the first-time entering undergraduates. The retention problem; in particular high dropout and low cohort completion rate, is due to many student-specific and institution specific challenges.

Fiedman (2005) raises concern that low retention rates, not only impact students and institutions that must bear the economic burden connected to premature departures, but also the ability of a nation to “compete in a global economy”. Levitz (2008) concurs, emphasizing that high retention and graduation rates signify a university’s/college’s realization of its mission, low graduation rates and high attrition rates, not only expose institutional problem in meeting the needs and expectations of its students, but also represent symbolic failure in accomplishing institutional purpose.

Although institutions have responded to student retention issues by implementing programmes and services, retention rates have not improved (Seidman, 2005). Additional research is required to determine strategies to address this issue. In United States of America, 60% of students at four year colleges and universities graduate within six years. Between 2003 and 2008, students at four year institutions who did not persist into their second year accounted for 6.2 billion dollars in state appropriations for higher education institutions, more than 1.4 billion dollars in state grant to the students and 1.5 billion dollars in federal grant to the students (Fusch, 2011) The institutions also incurred costs like the institution’s reputation, diminishing public support, and increased call for accountability (Fusch, 2011). The situation is the same in South Africa, where the government is funding many students but the graduation rate is very low. In years 2010 to 2012, the government spent 13.7 billion Rands on student loans and bursaries from National Student Financial Aid Scheme (NSFAS) for a total of 538 154 students. The graduation rate among these students was, however, very low.

The above discussion clearly shows that higher education administrators must be cognizant of the reasons why students depart from institutions of higher learning prematurely, and what can be done to help students overcome these barriers so they can achieve their academic and career goals. Retief and Thata (2008), as well as Pascarella and Terenzini (2005), note that the best predictors of student success include good career choices, competent academic staff members, sufficient support, academic preparedness, student engagement, and a comprehensive retention strategy at institutional or faculty level.

According to Alves and Raposo (2007), it is a fundamental necessity to analyse and study students' satisfaction in higher education, as the dissatisfaction of students has significant consequences for both the institution and the students, including for example unsuccessful students, students quitting or transferring, and 'negative word of mouth' harming future applications. Institutions of higher education with satisfied students could greatly benefit from being able to establish lasting relationships with their graduates.

1.4 RESEARCH QUESTIONS AND HYPOTHESIS

1.4.1 Research Questions

1.4.1.1 What is the composite contribution of all the institutional factors on student satisfaction?

1.4.1.2. Which of the institutional factors has a significant contribution on student satisfaction?

1.4.2 Research hypotheses

The study investigates the following null hypotheses;

Hypothesis 1

There is no significant relationship between students' biographical variables and the way they respond to the influence of institutional factors.

Hypothesis 2

There is no significant relationship between academic advising and student satisfaction.

Hypothesis 3

There is no significant relationship between academic support and student satisfaction.

Hypothesis 4

There is no significant relationship between teaching approaches and student satisfaction.

Hypothesis 5

There is no significant relationship between student assessment techniques and student satisfaction.

Hypothesis 6

There is no significant relationship between learning facilities and student satisfaction.

Hypothesis 7

There is no significant relationship between student funding service and student satisfaction.

Hypothesis 8

There is no significant relationship between student accommodation and student satisfaction.

Hypothesis 9

There is no significant relationship between student administration services and student satisfaction.

1.5 PURPOSE OF THE STUDY

The purpose of the study was to assess student satisfaction on institutional factors influencing student retention in one comprehensive university in the Eastern Cape Province. Retaining students in contexts of widening access and no growth context has never been more important. The study aimed to assess student satisfaction with selected factors (Academic advising, academic support, teaching approaches, learning facilities, student funding and student accommodation) and their impact on student decisions to stay.

1.6 RESEARCH PLAN OF ACTION

In order to fulfil its purpose, the study was conducted as informed by the research strategy shown in Table 1.3.

Table 1-3: Study plan of action

Main purpose of the study	
Assessing student satisfaction on institutional factors affecting student retention in one comprehensive university in the Eastern Cape Province of South Africa	
Paradigmatic Suppositions	
Epistemological Model	Positivist paradigm was appropriate for this study as the researcher was interested in objective measurements of institutional factors on student retention in higher education institution in the Eastern Cape.
Methodological Model	Since the study followed a positivism research paradigm, a quantitative research approach was used.
Theoretical Orientations	
This study was informed by Tinto's (1975) student integration theory. The theory contextualizes student retention and factors affecting academic performance of students. The theory was most referred to in the area of student retention, as it paved the way for a sociological analysis of retention. In other words, students who are satisfied with the formal and informal academic and social systems in a university or college, tend to stay in school.	
Research Design	
The study employed the survey design because of the nature of problem statement which required the researcher to measure the relationship among the variables statistically. Surveys were appropriate because the target population was too large and the study required hypotheses testing.	
Sample and sampling procedures	
Stratified random sampling from all faculties was used to collect data from the selected comprehensive university. The total population from which the sample was drawn	A ten per cent sample was drawn from the total population of 6 600 third year student, giving a sample size of 660 students which was stratified

consisted of third year students from four different sites of the selected university namely Campus A, B, C, and D.	into campus, faculty and gender.
Data Collection	
The study used structured questionnaire, with Likert scale type of question items, to collect data from the respondents.	Questionnaires were hand delivered to four campuses of the selected institution
Statistical Applications in data analysis	
Descriptive statistics	The frequency distribution, percentages, means and standard deviation, were used to examine data on the profile of the sample.
Inferential statistics	Inferential statistics was employed to interpret and analyze data in response to the research hypotheses. Two statistical tests namely; t-test and regression analysis were used.
T-Test	In this study, the researcher compared the mean of group of male students and the group of female students on variables, namely; academic advising, academic support, learning facilities, teaching approaches, student funding and student accommodation. The t- test determined whether an observed difference in the means of two groups was sufficiently large to be attributed to a change in some variables or whether it could have occurred by chance.
	Regression analysis was used to determine the extent to which student satisfaction (dependent

Regression Analysis	variable) was influenced by the given institutional factors (independent variables). This was a statistical tool that was used to estimate the relationship among variables.
Validity and Reliability	
<i>Validity</i>	The researcher's supervisor and the research committee at the university of study were asked to examine the items to judge whether they were adequate and appropriate for measuring what they supposed to measure.
<i>Reliability</i>	In this study, the researcher used a Cronbach's alpha coefficient as a measure of internal reliability of an instrument. The researcher also used a pilot study and expert opinion in order to ensure the reliability of a measuring instrument.
Ethical Considerations	
Ethical Elements attended to.	
Research Permission	The researcher applied for permission to conduct research from the selected university. The researcher received an ethical clearance from the Ethics Committee of the University of Fort Hare before conducting the empirical survey.
Informed consent and voluntary	The researcher identified participants and sought their consent to be participate in the proposed

According to Willingham, Pollock and Lewis (2002), as cited by Ivala and Kioko (2013), institutions that achieve student satisfaction can benefit in a number of ways. Satisfied students are less likely to drop out, pay more attention, look more interested, are more likely to achieve higher grades, and engage in a positive word of mouth and collaborate with institution after they graduate (Alves & Raposo, 2009). In addition, given the competitive nature of higher education institutions, institutions that achieve student satisfaction can expect to gain a competitive advantage. This means institutions with good track record of student satisfaction will attract the top scholars and students. Previous research by Serenko (2011) indicated that student satisfaction levels influence factors including student performance, intellectual development enrolment, retention and graduation rates, and development of long-term relationship through word of mouth.

1.8 SCOPE OF THE STUDY/ DELIMITATIONS

The study examined the relationship between the institutional factors and student retention at a public comprehensive university of higher education in Eastern Cape. Comprehensive universities are a new type of institution resulting from the merger of a technikon with a university. These institutions offer both university and technikon programmes and degrees in the traditional arts, business and science disciplines. Comprehensive universities are intended to be an important vehicle for the achievement of a unitary system; in other words, breaking down the binary divide between universities and technikons (CHE, 2004). The objectives of this particular type of merger are; to strengthen research in vocational technikon-type programmes, to give students a wider range of programmes with different entry requirements, to increase access to technical education throughout the country, to facilitate student mobility between programmes, and to remove the barriers to further education.

While it is well documented that there are a number of student related factors for example race, academic ability, gender, among others, that affect student retention, this study focused on those factors, at institutional level, that can be strategically altered or changed to improve student success and retention (Lau, 2003). The study focused on third year undergraduate students in the Faculty of Business Sciences, Faculty of

Science and Technology, Education and Humanities, in one selected Comprehensive university in the Eastern Cape.

1.9 DEFINITION OF TERMS

The following are the explanation of terms used in the study:

1.9.1 Student Satisfaction is generally accepted as a short-term attitude resulting from an evaluation of a student's educational experience. Student satisfaction results when actual performance meets or exceeds the student's expectations (Elliot & Healy, 2001). In higher education, student satisfaction occurs when perceived performance meets or exceeds the students' expectations (Mark, 2013). As students evaluate service quality, they typically cannot help but compare the performance they experience with the performance they expected (Wright & O'Neill, 2002). Student satisfaction is of compelling interest to colleges and universities as they seek to continually improve the learning environment for students, meet the expectations of their constituent groups and legislative bodies, and demonstrate their institutional effectiveness (Levitz, 2011). In this study student satisfaction is the extent to which the student continually remain attached to the institution of higher learning thus leading to student retention.

1.9.2 Retention is an institution of higher education's ability to retain a student from admission until graduation (Viljoen & Deacon, 2013). The three primary reasons for universities to address the issue of retention as outlined by Viljoen and Deacon (2013) are: (1) the economy – a decline in the number of students who enrol each year will result in a decrease in tuition income; (2) the university has an ethical responsibility to demonstrate good faith in student success (Bringle, Hatcher & Muthiah 2010); and (3) it involves, not only monetary costs to the university, but also costs in administration and demoralised faculty and staff. Students' persisting until completion of their goals is a key gauge of student success. In this study, student retention will be taken to mean student

intention to stay within the institution and the ability of the institution to keep students until the attainment of a qualification.

1.9.3 Academic advising is a point at which student behavior and institutionally controlled conditions meet, to potentially influence student achievement (Kuh et al. 2005). The advising process can help students to identify personal strength and interests related to their educational and career goals. Tinto (1975, 2007) asserts that students are more likely to thrive, persist and complete degrees in environments that provide clear and consistent information about institutional expectations and requirements. Academic advisors can interpret institutional expectations to students, thereby helping both the student and the institution achieve their goals. This is why it is adopted for the study. In this study, academic advising will be taken to mean some form of guidance offered to students from the time they arrive at the institution until their graduation.

1.9.4 Academic Support is defined as programmes which attempt to optimize the academic performance of students disadvantaged by secondary education (Adams, 2006). A number of colleges and universities offer students a wide variety of services and resources intended to promote persistence by providing academic assistance (Pascarella & Terenzini, 2005). Spencer (1994) observes that academic support activities are viewed as peripheral to the mainstream activities of institutions as opposed to academic development that focuses on mainstream activities. In this study, academic support will be taken to mean the range of practices to support students once they enter the university.

1.9.5 Teaching approaches is defined by Hénard and Roseveare (2012:7) “as an outcome that helps increase students’ learning satisfaction. It involves several dimensions, including the effective design of curriculum and course content, a variety of learning contexts (including guided independent study, project-based learning, collaborative learning, experimentation, etc.), soliciting and using feedback, and

effective assessment of learning outcomes”. Teachers’ teaching methods are linked to their conception of what the essence of teaching is. In this study, teaching approaches will be taken to mean different methods used by lecturers to facilitate learning and transmit knowledge to students.

1.9.6 Assessment Techniques: Assessment is probably one of the most important tasks that teachers can perform to facilitate meaningful student learning (Woyessa, S.P., Van Tonder & Jaarsveldt, 2013). It defines what students take to be important, how they spend much of their academic time and in many ways how they value themselves (McCullach, 2007). Students can be absent during teaching but they cannot afford to do away with assessment. This is because, if they want to get a qualification, they have to participate in the assessment processes designed and implemented by the university. In this study, assessment techniques include tests, assignments, presentations and examinations.

1.9.7 Learning facilities include physical facilities available on campus and that can have impact on student learning and can contribute to the creation of a meaningful environment (Lau, 2004). In this study, learning facilities will be taken to mean the library facilities, study environment in the libraries and lecture halls, at a selected comprehensive university.

1.9.8 Student Funding in higher education consists of both need- and merit-based aid, in such forms as grants, loans, tuition remission, and private or institutional scholarships (Ganem & Manasse, 2011). In this study, student funding will be taken to mean various types of financial aids and scholarship programmes available to students, both on campus and off campus.

1.9.1 Student Accommodation

Regardless of differences in background and educational goals, commuter students share common needs and concerns. For example, issues related to transportation that

limit the time spend on campus, multi life roles, the importance of integrating their support system into the collegiate world and develop a sense of belonging into the campus (Levitz, 2008). As opposed to off campus students, on campus residential living is an important element in social integration whereby students become active participants in their academic and social community. In this study, student accommodation will be taken to mean both residential living students and commuter students.

1.9.10 Student Administration services: refer to an extent to which Higher education can assist and support students, not only from academic staff, but also from their colleagues and non-academic staff. The mission of student services is to enhance students' experience and facilitate development and growth (Sharer, 2014).

1.10 BRIEF RESEARCH METHODOLOGY

The main aim of the study is to assess student satisfaction on institutional factors that influence student retention at one comprehensive institution in the Eastern Cape. Positivist paradigm was appropriate for this study as the researcher was interested in objective assessment of institutional factors that influenced student satisfaction in higher education institution in the Eastern Cape. Since the study followed the positivist research paradigm, the quantitative research approach was used. "Quantitative research is a process that is systematic and objective in its ways of using numerical data from only selected subgroup of a universe or population to generalise the findings to the universe that is being studied" (Maree, 2014: 146). In a quantitative approach, there are two strategies of enquiry namely; experiments and surveys (Maree, 2014: 155). The study employed surveys because of the nature of the problem statement which required the researcher to measure the relationship among the variables statistically.

1.10.1 Data Collection

The study used structured questionnaire with Likert scale type of question items to collect data from the respondent. Stratified random sampling from all faculties was used to collect data from the selected comprehensive university. In stratified sampling, the population was divided into a number of homogeneous, non-overlapping groups called strata (Maree, 2014). A ten per cent sample was drawn from the total population of 6600 third year student, giving a sample size of 660 students which was stratified into campus, faculty and gender.

1.10.2 Data analysis

Descriptive statistics, through the use of frequency distribution, percentages, means and standard deviation, were used to examine data on the profile of the sample. Inferential statistics were employed to interpret and analyze data in response to the research hypotheses. This was done using two statistical tests, namely; t-test and regression analysis.

1.11 OUTLINE OF THE STUDY

The study is divided into 6 chapters. Chapter 1 outlined the scope of the study, explained the problem statement, identified the research questions and hypotheses, discussed the significance of the study and the research methodology. Chapter 2 reviews the literature related to the study. This chapter also provides the conceptual and theoretical framework of student retention. The last part of chapter two gives a brief exposition of student satisfaction and retention in other countries. Chapter 3 describes the methodology used for the study. It explains the research philosophy and design as well as data collection and analysis instruments used in the study. In Chapter 4, the empirical analysis of results is presented. This chapter further analysis the demographic variables of students who participated in the study, and the findings are presented in relation to the research questions and hypothesis of the study. Chapter 5 interprets the findings of the study. Chapter 6 gives the summary of the study, draws conclusions and proffers recommendations.

1.12 CHAPTER SUMMARY

Chapter one introduced the study by setting the context in which student satisfaction and retention are discussed. This chapter also highlighted the focus and motivation of the study along with the limitations of the study. It also provided an outline of the manner in which the study was structured into various chapters. The next chapter presents a review of the literature in contemplation of providing a deeper understanding of student satisfaction and retention in higher education institutions.

CHAPTER TWO

THEORETICAL UNDERPINNINGS AND LITERATURE REVIEW

2.1 INTRODUCTION

The previous chapter introduced the study and gave a clear background to the study and identified the main aim of the study. Chapter one also explained the research methodology followed by the study, which is discussed further in chapter three. The major issue highlighted in chapter one, specifically in the background of the study, was that student retention is an issue of concern all over the world, which requires institutions to embark on strategies for maintaining or improving student retention. The issue of student drop out was also mentioned as being caused by factors like financial difficulties, lack of student support, poor background, poor performance, dissatisfaction with institutional services and other factors. The previous chapter also explained the research problem. The statement of the problem showed that, while all South African universities were generally committed to giving access to all students, the graduation rates were far below the Department of Education set standards. In the selected Comprehensive University, student attrition remained unacceptably high, with the graduation rate ranging from 4% to 13%, which is far below a set benchmark. Various studies have been conducted on factors affecting student retention in other institutions of higher education in South Africa, but there is no known study conducted in the selected university, hence; the present study.

Chapter two is divided into two sections. The first presents an overview of the leading theoretical frameworks relevant to student retention, student satisfaction and retention. The second covers the studies conducted in South Africa, related to student academic success and retention, as well as the review of relationships between the selected factors and student satisfaction.

2.2 THEORETICAL FRAMEWORKS ON STUDENT RETENTION

Several theories of student retention have been developed by researchers to identify and analyze the factors affecting student retention; and the majority of these derive from studies within the US higher education system. Tinto (1993) has categorized student retention theories into three types: psychological, environmental and interactional.

Psychological theories focus on individual personality attributes, and view student attrition as reflecting some shortcoming and/or weakness in the individual. The key theories in this category are Astin's (1984) Student Involvement Theory and Bean and Eaton's (2000) Psychological Theory. Environmental theories focus on the social, economic, and organizational forces impacting on student retention (Tinto, 1993). Societal theories emphasize the importance of social forces that are external to the higher education institution, that impact on student retention, such as; social status, race, prestige, and opportunity (Tinto, 1993). Economic theories emphasize the importance of individual finances and financial aid in student retention (Tinto, 1993). Organizational theories focus on the effect of organisational factors on student retention. Factors studied within these theories include bureaucratic structure and size, faculty student ratios, and institutional resources and goals. The key theory in this category is Bean and Metzner's (1985) Student Attrition Theory. Interactional theories focus on the influence of the interaction of individual and environmental factors on student retention. Tinto's (1975, 1993) Student Integration Theory is the key theory in this category.

The following section presents a review of literature on retention model by Spady (1970), Tinto (1975, 1986, 1993) and Pascarella and Terenzini (1980, 1983, 2005) as the only three guiding theories for the study.

2.2.1 Spady's sociological theory (1970)

Spady's sociological perspective (1970) provided the first systematic approach to understanding student departure or exit from a particular social system. Spady's (1970) theory of student departure is based upon Durkheim's (1951) theory of suicide. Durkheim concluded that suicidal behaviour was the result of the inability to integrate socially and intellectually into society. Spady (1970) concluded that the same process occurs when students drop out from university. The study is of the view that students who did not socially integrate in the university system were more likely to drop out of the university.

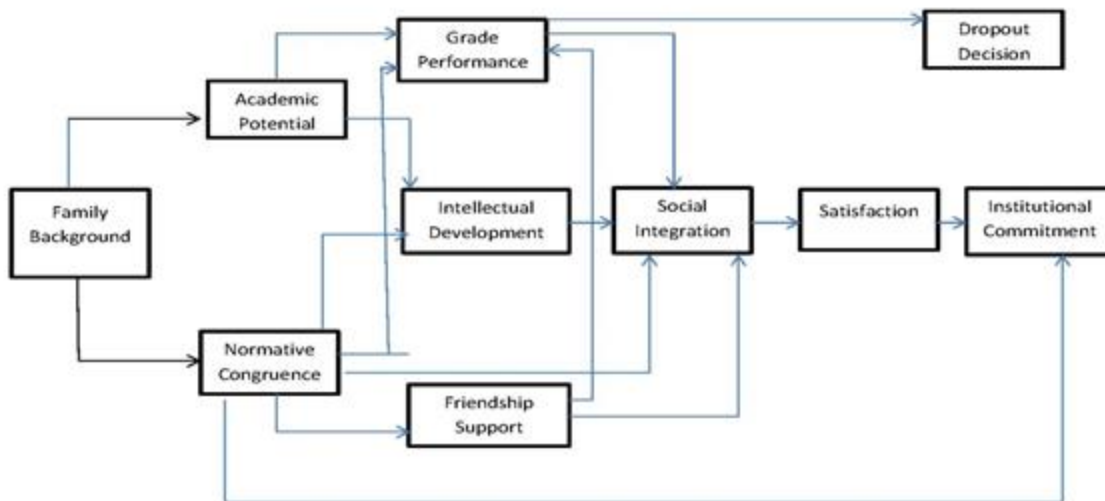


Figure 2-1: Spady's Attribution Model, 1970

The model above, as developed by Spady (1970), contains five independent variables: grade performance, intellectual development, normative congruence, friendship support, and social integration. The first four variables influence the fifth. All of them link indirectly through two intervening variables to the dependent variable, dropout decision. The two variables are satisfaction and institutional commitment. In this model, normative congruence (the way that the student's goals, interests, and personality dispositions interact with the subsystems of the college) affects other independent variables: grade performance, intellectual development, and friendship support. These interact with each other and, in turn, influence the degree to which a student becomes socially integrated

into the college. There is a direct positive relationship between the level of a student's social integration and the level of satisfaction the student experiences within the college. This, in turn, causes the student to be more committed to the institution. It is the level of institutional commitment that has a direct effect on whether a student decides to stay or leave. The level of institutional commitment also feeds back into the normative congruence felt by the student. Grade performance was also assumed to have a direct effect on the drop-out decision, due to the fact that a student who has poor grade performance may be dismissed for academic reasons.

Spady (1970:77) describes the process of attrition as an "interaction between the individual student and his particular college environment." The individual's attributes namely; dispositions, interests, attitudes, and skills interact with the components of the institution such as faculty contact, administration, course work, and other students. In this model, the focus is on contextual structures more than individual characteristics. The current study focuses on institutional factors that are aimed at assisting students to adjust and persist. This theory assisted the researcher in coming up with the selected variables with the hope that these variables can facilitate interaction between the student and the institution. Most institutions of higher learning interact with individual student through faculties, administration services, funding services and accommodation services. The study sought to find out the influence of the selected institutional factors on student retention.

2.2.2 Tinto's Student Integration Theory

Vincent Tinto, is a world renowned researcher and developer of theories and models relating to student behaviour and retention. One of Tinto's benchmarking contributions is the "Theory of Individual Departure from Institutions of Higher Education." Tinto depicts his theory in a holistic diagram that illustrates a longitudinal process of student departure or dropout, and, by implication, student retention. The research inquiry is primarily, but not exclusively, located within Tinto's student integration theory of institutional departure (Tinto, 1970). His extensive literature (Tinto, 1975, 1982, 1993,

1997, 2005) is cited in research that tests and develops models to suit varying contexts. The model is represented in Figure 2.1 and emanates from his early seminal work (Tinto, 1975). The model is based on research undertaken in the USA, and is therefore, informed by different (although arguably converging) economic and education contexts in the UK. The current study is based on a South African comprehensive university in the Eastern Cape Province.

Tinto (1975) theorized that the more students feel integrated into the institution, both socially and academically, the less likely they were to drop out. According to Tinto (1975), integration at university takes the form of academic and social integration; and both are essential for a student to remain at an institution. In some instances, a student may perform well academically (academic integration) but at the same time lack social support and social interaction with peers and lecturers, and not feel part of the institution (lack of social integration). As a result, the student may decide to leave, dropout or transfer to another university. Similarly, a student may be well integrated socially (i.e., participating in sport events, having established friendships with fellow students and lecturers), but at the same time perform poorly academically (maybe because of social activities leaving less time for academic work). Hence, both concepts are important for students' academic success at university, as well as finding the right balance between them.

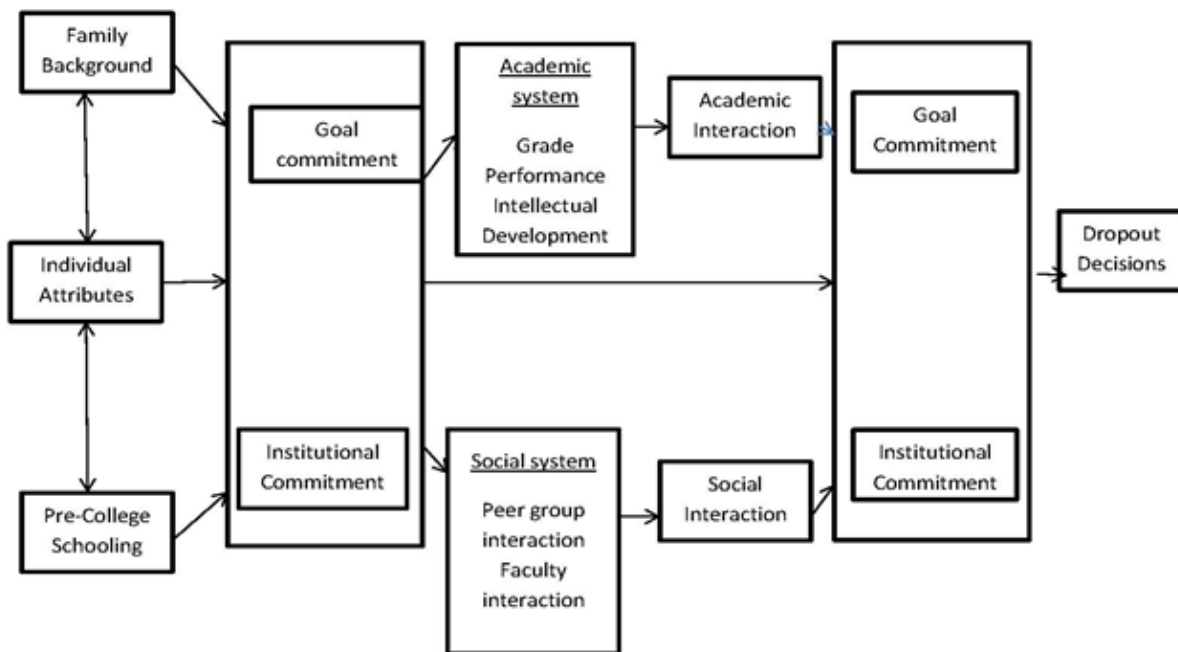


Figure 2-2: Tinto Student Intergration Theory

Tinto (1993) further argues that the extent to which students are able to integrate academically and socially depends, partly on their pre-entry characteristics (prior schooling, family background, skills and competences, aspirations and goals) as indicated in Figure 2.2. These factors are directly related to their initial goals and commitments when they enter the university or college. After they begin their journey into the university, they are faced with vast institutional experiences that Tinto groups into four main areas namely; grade performance, intellectual development, peer-group interactions, and faculty interactions. Colleges and universities are also composed of unique individual characteristics. The characteristics of students and the colleges or universities they attend may not match, and therefore, may bring the students into conflict with the college or university. Students may depart, or drop out, if the sources of conflicts are not resolved. Through this action, a student formulates emerging goals and commitments that ultimately affect their decisions to stay or leave.

Academic integration is enhanced via positive interactions and relationships with institutional staff, while social integration depends on the student's involvement in extra-curricular activities and interactions with peers (Bitzer & Troskie-De Bruin 2004:121). The student's experience of academic and social integration, in turn, impacts on their intentions and commitments, both with regard to earning a degree and to the particular institution (Lourens 2006:1).

Tinto (1975, 1993) proposes that the roots of student departure are primarily in three specific areas namely; academic problems, failure to integrate socially and intellectually with the culture of the college or university, or a low level of commitment to the college or university. He argues that colleges and universities must integrate students deliberately in all three areas to decrease the chances of departure. Colleges and universities should create intentional opportunities for extracurricular activities, informal student interactions, and faculty/student interactions. Tinto (1993) observes that students and colleges and universities define failure differently. Often colleges and universities interpret the students' lack of attaining a degree at that particular college or university to be failure. Students leave colleges or university for a variety of reasons such as career advancement, family obligations, or health reasons. Students may transfer to other colleges or universities or return to higher education to attain degrees at a later time. Thus, the student may not interpret departure as a failure at all.

Tinto (1993) employed Van Gennep's (1960) rites of passage theory to explain the process of students adjusting to college in three stages. The Separation stage is characterized by a decline in interactions with past associates and a change in behavior. In the Transition stage, students acquire the necessary knowledge and skills to interact with members of a new group, and finally, during the Incorporation stage, new interaction patterns are established. The ability to successfully move through these phases may be dependent on the differences between a student's past norms and behavior patterns, and those that are accepted in the new environment. Students from families, communities, and schools with widely different norms and behaviors from those in the college environment may have difficulty adjusting to the new environment, requiring rejection of culturally-unique aspects of their past lives in order to persist. Tinto

(1993) suggests that students who do not disassociate from their own cultures do not benefit from the full rewards of membership in the college community, and are at risk of departure.

Even though Tinto's theory is regarded as the most widely used theory to study student retention, it is not without limitations. Firstly, the theory neglects the role of finance on student retention (Hossler, Ziskin, Jacob, Gross, Kim, and Cekic 2009; St. John, Nora & Asher 2002). Secondly, it fails to distinguish between factors leading students to transfer rather than dropout (Pascarella and Terenzini, 1983; Tinto, 1982). Thirdly, it fails to incorporate the important differences in educational career paths for students of different race, gender, and social background (Tinto, 1982). Tinto modified his original theory in 1993 (Figure 2.3) with the addition of two constructs or factors: External Commitments and Intentions. According to Tinto (1993), a student's intentions have a direct influence on their goal and institutional commitment, which both directly influence student retention.

student and the institution are both responsible for ensuring that the student's goal and that of the institution, are achieved. When both the institution and the student work together toward a certain goal, there is high chance that the student will be retained and graduate on time.

Tinto, (1987) like Spady, linked his multivariate retention model to Durkheim's suicide model. Tinto (1987) identified eight major reasons for a student to leave college. The identified causes were intentions, commitment, adjustment, academic difficulty, congruence, individual isolation, obligations, and personal finances. He divided these into pre-entry factors (intentions and commitments), and after-college factors (adjustment, academic difficulty, congruence, and isolation). After identifying the eight factors Tinto formulated his interaction model of attrition.

These factors are directly related to students' initial goals and commitments when they enter post-secondary. After they begin their journey into post-secondary, they are exposed to numerous institutional experiences that Tinto (1987) groups into four main areas – grade performance, intellectual development, peer-group interactions, and faculty interactions. These interactions within the academic system characterize the social and academic integration. Through this process, a student formulates emerging goals and commitments that ultimately affects their decisions to stay or leave.

The researcher believes that students' experience with the institution can be explained in terms of academic performance. Academic performance reflects a student's degree of structural integration into the academic system of a college or university, since grades reflect assessments of a student's ability to meet an institution's values and objectives for student academic achievement. Tinto (1975) views intellectual development as an aspect of normative integration because it reflects the student's appraisal of the institution's academic system.

The essence of the Tinto's theory of student departure is that persistence is a function of a longitudinal process of interactions between students and faculty, staff, and peers in academic and social settings (Tinto, 1993). Positive interactions and involvement in academic and social settings provide students with the means to understand and assimilate to institutional norms, termed integration, leading to a heightened commitment to completing college, and to the institution itself. However, negative experiences and factors that limit campus involvement weaken intentions and commitments and increase the likelihood of departure. This means that the higher the degree of integration of the individual into the college, the greater will be his/her commitment to the specific institution and the goal of college completion" (Tinto, 1975: 96). The study investigated the factors that can cause students to integrate socially and academically thus; resulting in an increase in both goal and institutional commitment, which will result in high level of persistence among students.

Academic integration reflects a student's experience with academic systems and academic communities of a college or university (Tinto, 1975). Academic integration typically has been operationally defined and measured as a student's estimation of their academic and intellectual development, grade point average and student's perception of faculty concern for teaching and student development (Pascarella & Terenzini, 1983). Tinto (1975) further states that informal peer group associations, extracurricular activities, and interactions with faculty and administrators are mechanisms of social interaction.

Tinto (1975, 1986, 1993) claimed that college students who failed to integrate into the social and academic system of the institution would likely leave the institution. The student decision to drop out or to persist is based on goal commitment and institutional commitment. Goal commitment refers to an individual's willingness to achieve a particular objective; in this case, a college degree. It is often conceived of as educational aspirations (Tinto, 1993). Institutional commitment refers to an individual's dedication and allegiance to a particular institution or the willingness and a desire to achieve the goal of a degree in a particular institution. Both institutional and goal

commitment are influential in persistence because regardless of their institutional calibre, some level of effort and ambition is necessary to achieve degree completion.

The commitment by the institution in terms ensuring satisfaction with all the selected variables (academic support, academic advising, proper teaching methods, learning facilities, assessment methods, funding services, accommodation and administration) will improve a student's goal commitment. Understanding the effects of both institutional and goal commitment can be important in categorizing different types of students. That is, institutional commitment and goal commitment are important factors of college persistence, because they help distinguish between persisters (high aspirations, high goal commitment, and high institutional commitment), and dropouts (low aspirations and low goal commitment) (Tinto, 1987). The study intends to find out whether both academic and social integration factors, if satisfied by the institution, can lead to establishment of competent membership in academic and social campus communities.

2.2.3 Pascarella's (1980) Attrition Theory

Pascarella's (1980) Attrition Theory is based on the work of Spady (1970), Astin (1970), and Tinto (1975). This theory also elevates the importance of informal contact with faculty that had been discovered in his work with Terenzini. His theory emphasizes the informal interactions between student and faculty as being important in students' educational outcomes and retention. Pascarella and his associate Terenzini (1977, 1979), conducted a number of studies using Tinto's model as a guide. They reported, among other things, that voluntary freshman persistence/withdrawal decisions were significantly related to the frequency of student-faculty informal, non-classroom contact. They found that not only was the frequency of informal contact important, but also the quality of such contact. Such informal contact was also determined to be more important for students who had initial low commitment to the goal of college graduation. The researcher noted that most institutions admit and enroll students to different programs and nothing is done to assist the student until graduation. The study is of the opinion that frequent quality informal contact between the student and the faculty could

act as a compensatory influence on college persistence, especially for those who would seem most likely to withdraw.

Terenzini (1987) suggests that students' growth and development are affected by five sets of variables; students' precollege traits, the college or university's structural or organizational characteristics, the campus culture or environment, socializing agents on the campus, and the quality of effort put forth by the students. Students' pre-college traits include students' socioeconomic backgrounds, preparation for college-level work, and demographic traits. A student body composed predominantly of wealthy students who attended college preparatory schools will present significantly different opportunities and challenges to colleges and universities than students coming from predominantly working-class backgrounds and less academically proficient secondary schools. The size, selectivity, geographic location, secular or faith affiliation, and residential character of colleges and universities define their structural or organizational characteristics. Together, the variables shape the third variable: the campus culture or environment. Pascarella(1980) defines the fourth variable as the frequency, content, and quality of the students' interactions with the socializing agents on the campus; namely the faculty, administrators, and student affairs professionals. The fifth variable; the quality of effort expended by students, will be directly affected by the fourth variable, as well as by students' own individual characteristics and the cultural norms and expectations of the college or university.

This theory specifically explains those relations that occur informally, or outside the classroom and are regarded as having the greatest significance. Terenzini's (1980: 568) model seeks "to understand the unique influence of student-faculty non-classroom contact on educational outcomes and institutional persistence". The theory acknowledges that students bring with them individual differences based on their unique backgrounds. During the college exploration process, the students interact with the institutional environment. The different individual characteristics of the students affect the college environment, and therefore, will influence the students' social, academic, and extracurricular experiences. These experiences influence the amount of informal

faculty contact, which together lead to educational outcomes. The educational outcomes directly determine the students' decision to persist or withdraw.

Furthermore, Pascarella (1980) acknowledges that, although the students' experiences influence the amount of contact with faculty, so too does the institution itself. Factors such as culture, size, residency, reward structure, policies, and advising programs contribute to the faculty's willingness to spend time interacting with students outside of the classroom. This theory assisted the researcher in coming out with a variable of student administration services, which in this study, will be explained by the role of the faculty and student affairs professionals and student accommodation services.

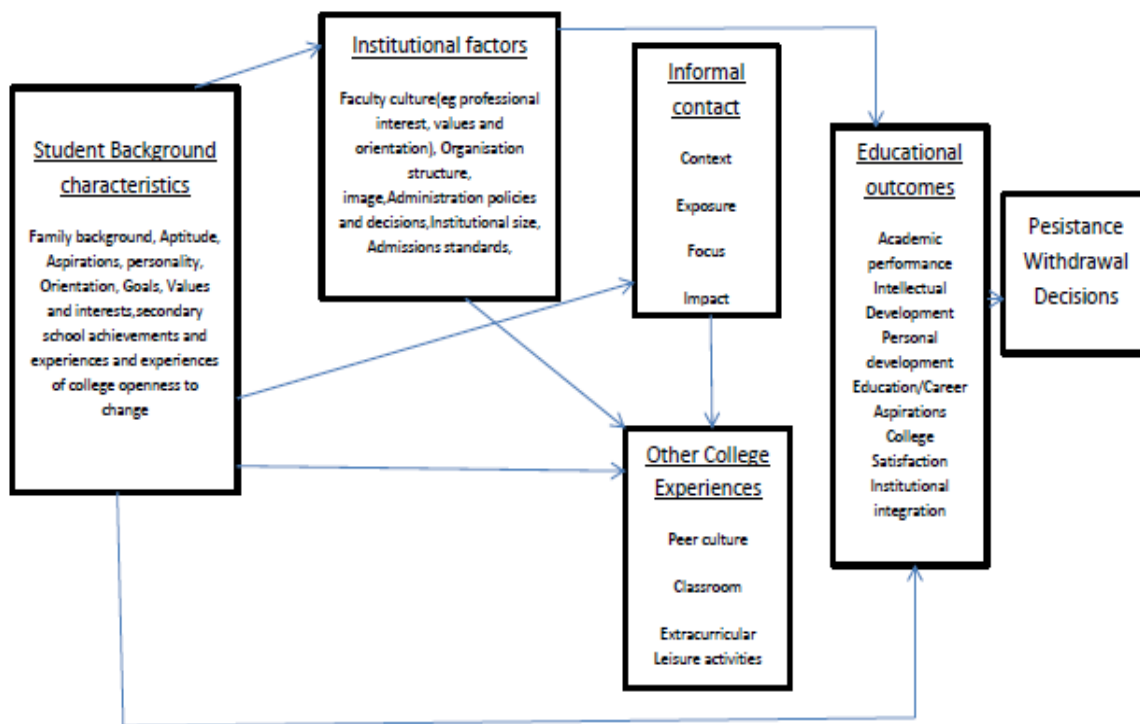


Figure 2-4: Pascarella's Attrition Theory

Pascarella's (1980) attrition model is longitudinal with a number of non-recursive relationships. According to Pascarella, student characteristics and institutional characteristics influence each other and have three independent variables. The three independent variables considered in the model are; the level of informal contact with faculty, other college experiences, and educational outcomes. The independent variables all impact each other so that a disruption in one area could spill over to the others and have an escalating reciprocal effect. Only educational outcomes directly impact the persistence/withdrawal decision. All other variables influence the decision indirectly through their effect upon educational outcomes. The study selected institutional variables of academic support and advising as there is an informal contact between the student and a faculty or a selected members of the institution. Pascarella and Terenzini (1980) observe that the amount of time a student spends with faculty, both in and out of the classroom, strongly influences student intent and persistence. This theory assisted the researcher in coming up with the two variables, namely; academic support and academic advising. Students may master the course content but still be at risk of dropping out if they fail to develop academic confidence, academic goals, achievement, motivation and social support and involvement.

2.3 STUDENT SATISFACTION AND RETENTION

Institutions of higher learning today are faced with challenges of limited resources and financial constraints. It is crucial to identify practices and organizational structures that facilitate learning and increase student satisfaction and, ultimately student retention and graduation. Institutions of higher learning are expected to satisfy admitted students in order to retain them. Danjuma and Rasli (2012) posits that satisfaction is an essential element for customer attachment which will lead to continuity of the student in the education institution, leading to student retention.

Elliott and Shin (2001), describe student satisfaction as “the favorability of a student’s subjective evaluation of the various outcomes and experiences associated with education. Student satisfaction is being shaped continually by repeated experiences in

campus life” and can be seen as customer satisfaction. Today’s rapid expansion of colleges and universities forces them to think differently about the role of student satisfaction for their continued existence. Universities are required, not only to attract students but, also to retain them in this competitive environment (Arambewela & Hall, 2009). Attrition and retention rates are defined as the percentage of students in a particular year who neither graduate nor continue studying in an enrolled or provided course at the same institution in the following year (Crosling, et al. 2009). It takes both formal and informal interactions into account, as well as the social and intellectual environment.

Tinto’s(1975) integration model proposes the longitudinal process of student departure by identifying two main constructs that influence student withdrawal; social and academic integration. Academic integration refers to the level that the students feel confident that they can achieve the degree, i.e. that they have chosen the right level, which is confirmed by academic achievement (academic congruence). Social integration refers to the extent that the students feel at home in the institution and feel part of a social network. Tinto (1975) refers to the student feeling at home and part of the social network as social congruence. To assist the student to integrate academically, the study investigates the institutional variables of teaching approaches, assessment techniques, academic advising and support, and how they impact on student retention.

Just like in the workplace, satisfaction in academic settings is also treated as both an independent and dependent variable. For instance, satisfaction, as an independent variable, explains college outcomes such as retention rates, and graduation rates (Jamelske, 2009; Pascarella & Terenzini, 2005). As a dependent variable, satisfaction is explained by a number of academic-related factors such as advising, quality of instruction, and class size (Corts et al., 2000; Elliott, 2003; Peterson, et al., 2001). Previous researchers have investigated issues related to students’ satisfaction (Astin, 1977; Bryant, 2009; DeShields, Kara, & Kaynak, 2005; Pascarella & Terenzini, 2005),

and most of them agree that highly satisfied students are more likely to remain in, and successfully graduate from, the institution.

Students' satisfaction surveys are important in ascertaining whether colleges and universities are fulfilling their mission of producing qualified graduates. Students must be satisfied with their overall university experience in order to promote and support their higher educational institution as a student and graduate on time. Satisfaction is a relevant measure because many studies have demonstrated that other factors being equal, satisfied individuals are likely to be willing to exert more effort than unsatisfied individuals (Bryant, 2006; Özgüngör, 2010). Satisfied students are more likely to exert more effort in their educational studies by taking actions such as regularly attending their classes and becoming more involved in their coursework and institution. Satisfied students are more likely to be committed and continue their studies (as measured by a higher retention rate) than unsatisfied students, who are likely to be less willing to regularly attend classes, and are more likely to quit their studies (Jamelske, 2009).

Students' satisfaction has been conceptualized in a number of ways by researchers. For example, college students' satisfaction was conceptualized as "satisfaction with college experience" (Elliott & Healy, 2001; Peters, 1988; Billups, 2008), "satisfaction with quality of instruction" (Aman, 2009), "satisfaction with online courses" (Banks & Faul, 2007; Heiman, 2008; Beqiri, Chase, & Bishka, 2010), "satisfaction with assessment" (Kane, 2005; Ross, Batzer, & Bennington, 2002), "satisfaction campus-wide" (Benjamin & Hollings, 1997), and "satisfaction with an academic department" (Corts et al., 2000). In this study, however, satisfaction is conceptualized as "satisfaction with institutional factors" affecting student retention (academic advising, academic support, teaching approaches, assessment methods, learning facilities, accommodation services, funding services and administration services).

2.3.1 Student satisfaction with academic advising

According to Raskin (1979) as cited by Pietras (2010) advising entails assisting students in their vocational and educational concerns by understanding the institution's academic and support programs, understanding the student, and using the knowledge of the two to develop an academic plan. Habley (1981: 46) views advising as "providing assistance in the mediation of dissonance between student expectations and the actualities of the educational environment". It is believed that the dissonance occurs between student goals and abilities as well as with the purpose of higher education. Crockett (1978b: 3) believes academic advising is "assisting students to realize the maximum educational benefits to them by helping them to better understand themselves and to learn to use the resources of the institution to meet their special educational needs and aspirations". He later expanded his definition: Academic advising is a developmental process which assists students in the clarification of their life/career goals and in the development of educational plans for the realization of these goals. Drake (2011) defines academic advising as a decision-making process during which students themselves reach their own academic potential through a communication and information exchange with an academic advisor.

2.3.1.1 The importance of Academic advising

Academic advising synthesizes and contextualizes students' educational experiences within the frameworks of their aspirations, abilities and lives to extend learning beyond campus boundaries and timeframes. It helps students to value the learning process, to apply decision-making strategies, to put the college experience into perspective, to set priorities and evaluate events, to develop thinking and learning skills, to make choices, and to value the learning process (Drake, 2011).

"Academic advising has moved toward providing guidance to students that focuses on meeting their learning and developmental needs" (Pizzolato, 2008:19). The relationship between a student and their faculty advisor is a crucial relationship to have. The student has an opportunity to get to know their professional advisor over the course of several years, making it easier for the student to address concerns or ask any questions to their advisor. Pizzolato (2008) found that academic advising has the advantage of giving

students a repeated one-on-one interaction across the number of years. In addition, the student-faculty relationship should be one where both the student and the advisor know personal information about each other. For example, the advisor should know where the student works, what their hobbies and interests are, and maybe even some family information. This relationship can provide many benefits to the student. The relationship between a student and their advisor can increase student development and increase academic success for the student.

According to Marques (2005), the top five best practices for faculty includes that, advisors should be involved in and knowledgeable about the student's position and program. Advisors should; be attuned to the student's personal well-being in the learning environment, be available to the student in a multitude of ways (in person and by telephone, e-mail, and fax), be honest with adult learners, and develop and maintain a peer-to-peer relationship with the adult learner.

In addition, advisors are expected to share their knowledge of major and degree requirements, help students schedule their courses, and generally facilitate progress to degree in a timely manner" (Baker & Griffin, 2010: 2). The main goal of an advisor and for the institution is to see students graduate. However, this is a process that needs to be completed in order to reach that goal. The goal in advising is not to increase or decrease a particular rate, such as decreasing the dropout rate and increasing graduation rate. Rather, the goal in advising is to create a satisfactory relationship with the student so that the student can get the best out of education. This goes on to say academic advisor for any student presumably holds the key to progress by coaching new and continuing students through general education choices, major selections, minors, and possibly certificate options. Improper advising can have a negative impact on students who enroll in unsuitably advanced courses and lose precious financial aid after unsuccessful attempts in such courses (Hollis, 2009:2).

Given the fact that academic advising is not only crucial to the institution, but also to the students who utilize the service, careful and thorough assessment of student

satisfaction of academic advising programs is deemed necessary. Winston and Sandor (2002), who created the Academic Advising Inventory (AAI), believe that the evaluation of advising programs helps institutions answer two central questions concerning academic advising: How well is the program doing? and what are the outcomes of the programs?

The Council for the Advancement of Standards in Higher Education (CAS, 1998) cited by Gordon, Habley and Grites (2008:248) discusses the key components of advising programs. The first one is coordination which means someone must be in charge of the program who will devote an amount of time to that responsibility. The advising program leaders must be positioned and empowered within the administrative structure to accomplish the mission of the advising programme. The academic advising programme must have an articulated vision for advising, setting goals and objectives, promoting student learning and development, practicing and prescribing ethical behavior, selecting and supervising staff, managing both fiscal and human resources, and initiating collaborative interactions with other officers and individuals on campus.

Effective advising must have a strong advisor development component that focuses on informational, conceptual and relational aspects. Because academic advising is regarded as a complex process requiring comprehensive knowledge and skill, advisor training is critical to the success of the programme (Upcraft, Gardner & Barefoot. 2004). The training programmes should have realistic, specific and measurable objectives. Lastly, the advisor and advising programme evaluation is critical as is the advisor reward and recognition. Upcraft, et al. (2004) summarizes the above into four components as the mission statement, coordination, adviser training, and recognition and rewards for advisers. The development of effective advising relationships rests upon a foundation of student satisfaction. If students are dissatisfied with advising, they are unlikely to view their academic advisers with warm regard, a factor which may compromise their ability to become integrated into campus life, to develop mentoring relationships, or to develop a sense of belonging within the institution.

Metzner (1989), as cited by Hale, et al. (2009) found that high-quality academic advising had a significant but indirect effect on retention through increased student satisfaction, higher grades, and a decreased intent to leave the institution. Keeping students satisfied with their advisors increases the likelihood that they will also be satisfied with their education because they know they are on the right track and do not feel lost. The current study is undertaken on the premise that serious efforts to improve retention should be grounded in the evaluation of student perceptions, desires, and satisfaction with academic advising. Making improvements in academic advising should be the focus of the institution in order to increase student retention and degree completion among students. Faculty advising, not only has the potential to increase student retention, but also can help the student be prepared for the workforce upon graduation. As a student develops throughout college, they are preparing to enter the working world and use the skills and knowledge they have acquired for the past two to four years. The relationship a student has with their faculty advisor should be a relationship in which the student and advisor have talked about vocational and career options for the student upon degree completion.

2.3.1.2 Types of Academic Advising

Academic advising itself and the personal interaction between the student and the academic advisor can take several forms (Fowler & Boylan, 2010) First, is a prescriptive academic advising where the advisor's role is giving student the advice based on institutional policy and requirements. However, it has been noted that this type of advising does not promote the development of independent problem-solving strategies need to improve poor academic performance, and can be less appropriate for underprepared students (VanderShee, 2007) Second, is a developmental advising which is a process-oriented relationship between the student and the advisor in which the focus is the student development goal. Developmental advising focuses on the growth of a student, instilling an awareness of relationship between education and life and the ability to set realistic academic and career goals, as well as programs to achieve them. The relationship also focuses on academic competence, personal

involvement and development to validate life purpose; all of which are associated with academic success. Thirdly, is the intrusive academic advising, where the advisor is actively concerned about the affairs of a student and does not depend on the student seeing the advisor voluntarily. Structured intervention protocols are used to motivate students to seek help at the first sign of academic difficulty.

In a study conducted at a Mid-South university, 429 students were surveyed to determine the style of advising used by their current advisor and also the advising style that the student preferred. Results indicated that nearly all (95.5%) students preferred the developmental advising style and 78% out of all students were actually receiving developmental advising (Hale et al., 2009). Although faculty advising is one key to student success, the type of advising is crucial to student development. Every student is different, and past research has shown that most students prefer developmental advising rather than prescriptive advising, because the former allows them to make their own decisions in their education, and allows them to create a professional relationship with their advisor in order to seek guidance and support.

2.3.1.3 Models of Academic advising

Habley (2004) describe seven models of academic advising currently found in institutions of higher education. The models are, self-contained, faculty only, satellite, split, supplementary, dual, and total Intake. Habley and Morales (1998) argue that any of these models could be effective, depending on how well the chosen model fitted with the institutional mission, size, faculty, and students. Pardee (2000), further groups these models into three main categories; centralized, decentralized, and shared structures.

Centralized model is one in which an institution depends on an advising center, usually staffed by a director and professional advisors, to provide all academic advising to students. The self- contained model is the only specific model within this category. The model is characterized by consistent advising, delivered by professional staff that value advising and are trained, recognized, and rewarded for providing quality advising. The services are generally accessible to students and highly visible as they are in one

location. The disadvantage of the self-contained model is the cost, as advising centers with adequate staff to provide advising to all students are expensive to operate. The students interacting with teaching faculty outside of the classroom are lost and, because of that, there are relatively few institutions using the centralized model in its pure form.

The decentralised model is the one where all advising services are provided by departmental faculty or staff. Decentralised models consist of two very different specific models, namely; the faculty only model and the satellite model. In the Faculty only model, all advising is done by department faculty in their offices. Students are either assigned to a faculty member in the department of their major or, if they are undeclared, to one of a group of faculty who have been identified or have “volunteered” to provide advising to students without majors. This model is characterized by low cost and proximity to department faculty. The disadvantage of this model is inconsistency in the quality of advising and even in the information provided by advisors. Further, the faculty providing the advising in this model are not evaluated or rewarded for good advising, and have no incentive for placing special emphasis on this work.

Another decentralized model, the satellite model, provides advising through central advising units located in each department or college within a university. Each of these separate units operates independently and may have different policies and procedures. This model is characterized by the student accessibility and consistency within that area because advising is usually provided by professional advisors. The disadvantages of this model include the high cost of operating several different units and difficulties in meeting the needs of the undeclared students and the students changing majors or in transition.

Shared structures is the model that consists of the split, supplementary, dual and total intake model. In a split model central advising office advises specific groups of students (e.g. undecided, special populations), but all other students are assigned to a faculty member or academic unit. The split model also provides special advising services for identified high-risk groups, such as undecided or underprepared students, which can be

one advantage of this model. The split model, which implements the use of advising centers, has become increasingly popular. One reason the split model has become popular is because it suits the needs of certain groups of students. The supplementary model is the one where all students are assigned to a faculty adviser. An advising office provides general academic information, but transactions must be approved by the faculty adviser. The model uses advising centers like the split model, but students are also assigned to a faculty advisor once the student has declared a degree of study. In the dual model, each student is assigned to a faculty adviser for issues related to the major, as well as an advising office adviser for general information requirements, policies and procedures. Lastly, total intake model is where administrative unit staff members advise all students for a specific period of time. Once students meet certain requirements, they are assigned to a faculty member for advising.

Pardee (2000) suggests that educational institutions should consider the following variables when selecting an appropriate organizational structure for academic advising: the enrollment figures; the administrative structure of the institution; the extent to which faculty are interested in and willing to devote time to the activity; the nature of the institution's academic policies, curriculum and degree programs; the mission of the institution; and the composition of the student body.

McArthur (2005) investigated the assumption that increased faculty dealings improve retention. He specifically used academic advising as the form of contact measured. He confirmed that increasing contact and improving outreach, positively influenced retention. The connection between students and advisors is one of the few consistent and long-term relationships undergraduates have within the institution with those who represent it. Students' teachers change each semester, but they usually have the same advisor. This allows the students to develop trust in their advisors and for advisors to identify students' needs and strengths, thus; helping students feel more integrated.

The study recognises that academic advising is a process in which faculty and staff interact with students as they develop, allowing and helping them realize what decisions

should be made and subsequent actions and steps to be taken to achieve their educational and career goals. The study supports Pascarella and Terenzini (2005) who purports that academic advising plays a role in students' decisions to persist and also affects their chances of graduating.

Given the high levels of student attrition at many colleges and universities, the researcher strongly believes that retention represents a student outcome that can be improved because it is influenced much more by institutional factors than by student factors or characteristics. In addition, academic advising is the one of the major academic and social domains of the college experience that affects student decisions about staying or leaving. The researcher recognises that student retention is linked to satisfaction, hence the study's attempts to assess students' satisfaction with academic advising which is critical for higher education institutions seeking to improve retention rates.

2.3.2 Student satisfaction with academic support

Satisfaction with academic support services has the potential to increase student retention and improve academic standards (Peach, 2005). According to Adams (2006:10), academic support is defined as programs which attempt to optimize the academic performance of students disadvantaged by secondary education. A student's academic achievement and approach to study have been found to be critical factors affecting both retention and attrition in first year students (Tumen, Shulruf & Hattie, 2008). Students often cite their reason for withdrawing from tertiary studies as their lack of academic literacy skills, particularly in research and writing (Goldfinch & Hughes, 2007). Students may be poorly prepared for higher education and struggle to make the transition into the HE learning environment. Under-preparedness in this context, refers to the students' lack of the necessary academic skills as well as insufficient personal understanding of the academic culture and of what is required, to be successful in the post-school or higher education environment (Dzubak, 2007). The study attempts to find out whether the existing academic support programs available within the selected

institution met the needs of the students and resulted in increased student performance. Students may lack basic skills, fail to adjust to the university approaches of learning and teaching, struggle with the academic discipline, fail assessments, and feel unable to ask staff or peers for help.

Disadvantaged groups demonstrate significantly higher rates of attrition and often need support programs to be successful in their transition to university studies (Draca, Leeves, Green, & Bradley, 2007). Gale et al, (2010) is of the view that academic support programs can increase aspiration, access and retention rates amongst students, particularly those from disadvantaged and lower socio-economic backgrounds. Academic support has also been defined as a condition that promotes success (Hilsdon 2013). Androushchak, Poldin and Yudkevich (2013) note that the availability of academic support in the form of developmental education courses, tutoring, study groups and other programs such as supplemental instruction, is an important condition for students' continuation in the university.

“The main purpose of academic support is to serve students' needs; especially the needs of those students who are underprepared or have difficulty adjusting to the academic environment” (Madni, 2008: 3). Academic support is meant to address students' deficiencies by offering perceived relevant support programs to ensure that students would perform well in their studies. Boughey (2005) identifies a number of activities as characteristic of early academic support work, some of which continue to this day. The first area of work concerned access and admissions and attempts to identify students with the 'potential' to succeed in higher education despite their poor scores on the matriculation examination and disadvantaged backgrounds. Work in this area continues today and has resulted, most recently, in the development of the National Benchmark Tests (NBTs).

The second area of work identified by Boughey (2005) relates to attempts to address the phenomenon of 'disadvantage' or 'underpreparedness'. Widely held conceptions of 'disadvantage' or underpreparedness' tend to rely on the assumptions that students

are: lacking skills; experiencing gaps in conceptual knowledge areas; in need of language development, and lacking the ability to think critically. There is also some acknowledgment of the impact of social and personal factors in learning resulting in attempts to address 'personal growth' through the development of 'life skills'. In the academic support phase, dominant assumptions were that these elements of 'disadvantage' could be addressed independent of mainstream learning, by means of additional classes and tutorials and special courses

According to Warren (1998) as cited by Adam (2006), students often experience university as offering personal and intellectual freedom, while at the same time are overwhelmed by the new social environment, academic culture and demands of study, for example pace of work, task complexity and volume of work. Warren (1998) argues that this has a disempowering effect on student academic progress. A special intervention is needed for such students to develop their language proficiency, study and academic skills and knowledge base. Interventions can be divided into two broad categories, namely; semi- integrated or separate and integrated interventions (Warren 1998).

Academic support involves curriculum design to facilitate the retention and success of marginalized students to progress from a 'more time more tuition' separate or bridging approach and semi-integrated or foundational approach, to the integrated and holistic approach (Crosling et al. 2009; Kloot et al., 2008). Separate or bridging approaches provide academic support and improves student secondary education. Semi-integrated or foundational approaches additionally provide academic development laying the necessary foundation for further study by developing cognitive, communication and study skills; while the integrated and holistic approach integrates academic development in mainstream programmes instilling cognitive, practical, reasoning and thinking, and, conceptual, critical thinking, language, communication, life and study skills through disciplinary content (Kloot et al. 2008). The study is aiming at assessing the student level of satisfaction with the present academic support systems with an

intention to increase the student retention rates. There are various types of programmes which an institution can use to facilitate student academic support.

2.3.2.1 Semi- Integrated or foundational programme

The semi-integrated or separate form of educational intervention targets non-traditional students. In South Africa, this means learners from historically disadvantaged settings (Adam, 2006). The programme consists of supplementary tutorial programs (STPs), extended programmes and separate- language based courses.

Supplementary tutorial programmes comprise additional weekly tutorial or workshops, usually voluntary. The intervention runs concurrently with the mainstream course to which it is linked (Adams, 2006). The aim of the STP model includes among other things; assisting students from under-privileged backgrounds to cope with the mainstream course, providing a separate, safe space for addressing their learning difficulties, developing study and writing skills, and clarifying key concepts; and elements of content.

Warren's (1998) experience with the model is that, it has a number of problems and these problems include: erratic attendance and poor preparation for class, particularly when test, assignment or exam deadlines approached; limited time for educational intervention in the STP; combined with the fast pace and heavy volume of mainstream work, inhibiting deeper learning and real "development"; not providing time and space necessary for developing students' cognitive and linguistic abilities, and the already struggling students being overloaded with extra, but non-credit-bearing tutorials, sometimes in several courses at once.

According to Taylor (2008:3) serious problems in student persistence, completion and meaningful learning still remain. The results of under-preparedness and/or an inappropriate curriculum hold a high percentage of students across the country who fails to complete their studies. This has resulted in the introduction of extended programmes

by most institutions. The level of unpreparedness has adverse effects on both the students and their families, and on national needs. Large amounts of their own or their parents' money, as well as public money is wasted as a result of students repeating or dropping out. Furthermore, the low number of graduates contributes to the current skills shortage. In order to deal with this problem, the Department of Education set aside special funding for extended diploma and degree programmes at all the universities in South Africa. The Department of Education (2006: 2) defines an extended programme as a first year undergraduate degree or diploma programme that incorporates a substantial foundational provision that is additional to the coursework prescribed for the regular programme. The foundational provision must be equivalent to one or two semesters of full time study, designed to articulate effectively with regular elements of the program, and formally planned, scheduled and regulated as an integral part of the programme

In the extended programme, the first-year teaching in the discipline is spread over two years. This model is also described as a "slow intensive" type. It allows for additional tuition (Bass, 2007). This means, if the minimum time for completion is three years, students are expected to complete the programme in four years. In addition to these features of the model, Warren (1998) identifies positive features and drawbacks. Positive features of this model are that, it is credit-bearing and caters for students from disadvantaged backgrounds without removing them entirely from mainstream classes, It creates additional time and space to include essential background knowledge and develop necessary skills, and the model also offers students alternative access to disciplines. The major drawback is that, it prevents students from being able to major in a subject within the usual time, since it implies an additional year of study in the discipline.

Separate-language based course focus on engendering critical reading and writing, and concept formation, using the English course or using material directly related to the students' other studies (Adam, 2006). Language poses one of the biggest obstacles for many students and it is one of the most common reasons for student failure. Many

universities have language and academic support (LAS) programs available to assist students with language skills. These programs are offered as a support system and sit outside of the main teaching within the discipline, and result in many students not accessing these services (Wingate, 2006 and Arkoudis, 2008). This means, only the subject lecturers are the contact point for students seeking to understand and develop academic writing skills.

Warren (1998) identifies the advantages and drawbacks of this model. Advantages of this model are that, it is credit-bearing and the skills are integrated with relevant content. Rather than teaching decontextualized writing skills, the course strives to assist students to come to grips with language and writing practices of academic discourse. Unlike the STP model, it provides the time and space necessary for developing students' cognitive and linguistic abilities, but it does not necessarily imply an extended curriculum. The close contact with tutors and emphasis on small group work and active discussion may help students overcome their sense of marginalization and gain confidence to deal with the new academic environment. Possible drawbacks are that, transfer of skills may be limited by the need to incorporate a wider range of disciplines, and students may resent being placed in a separate course.

2.3.2.2 Integrated Interventions

The integrated and holistic approach integrates academic development in mainstream programs, instilling cognitive, practical, reasoning and thinking, and, conceptual, critical thinking, language, communication, life and study skills, through disciplinary content (Kloot et al. 2008). This approach reveals that the issue of student learning in higher education is a complex social cognitive process of discovering, contesting sub-cultural roles and knowledge making rules. The model also recognizes the importance of cognitive and social processes in learning and thus, prepares students for specific demands of Higher Education (HE).

Supplemental instruction (SI) is defined by Blanc, De Buhr, and Martin (1983) cited in Barkley (2010:6) as an academic support system that has used peer advising to facilitate review sessions to students in challenging courses. SI facilitates the mastery of content in the process of developing and integrating learning and study skills in high risk courses and aims to improve student performance, retention and completion/graduation rates (Arendale 2005). Supplemental Instruction is peer-assisted study sessions which are regularly-scheduled, informal review sessions where students compare notes, discuss readings, develop organizational tools, and predict test items. Supplemental instruction sessions are conducted by leaders who are students who have previously done well in the course and who attend all lectures, take notes, and act as model students.

Spencer (1994) as cited in Adams (2006) and Arendale (2005) proposes the following features as essential elements of any student focused SI programme within the South African context. SI is targeted at historically difficult courses and is available to all students. Attendance at SI is voluntary, therefore, no stigma attached. It is not remedial but proactive. Supplemental instruction focuses on the integration of academic skills development (the process of learning) with course content mastery, as it is about co-operative Small Group Learning and the SI leader is not involved in assessment. The data about student attendance at SI is kept confidential and the program is supervised by a trained staff member. Programs based on SI are commonly conducted to provide students with the opportunity to discuss and process course information (Arendale 1997 cited in Kirkham & Ringelstein, 2008:41).

According to De Beer and Mostert (2008: 2), the attributes of those attending the SI session should have a good, complete set of notes/source references; have gone through the work at least once; have discussed the work with others (class-mates); have made sure that they understand the work and; have an idea of potential questions that can be asked on that specific part of the work. Other approaches include structured learning assistance (SLA) and accelerated learning groups (ALGs), which are

adjunct; and the emerging scholars programme (ESP), and video-based supplemental instruction (Arendale, 2005)

Personal tutoring emerged as an important strategy to nurture belonging through relationships with staff. It offers academic development and support. Effective personal tutoring is proactive, integrated, structured and nurtures relationships (Thomas, 2012). Isaacs (2007) also regards tutorial classes as being more dynamic in creating smaller group contexts for more meaningful discussion, supporting learning by means of more personal and individual attention, and providing a platform for free and open discussions. The current study is of the view that student relationships with faculty, staff and with each other are neglected by institutions of higher learning, and that a strong relationship between a student and staff member of the institution will help students to develop a sense of belonging to the institution and decrease their intention to leave. A study by Lord and Roberson (2006) found that students perceived tutorials as providing opportunities for deep inquiry, while at the University of Alabama, it was found that students had favourable responses to peer tutoring programmes which involved student assistants.

Thomas (2012) notes that personal tutors have to fulfil a number of responsibilities in higher education institutions. Personal tutors are regarded as first point of contact, being available for students very early when they arrive at their institution, and offering point of contact throughout the year (Thomas et al., 2010). They are also expected to offer academic support: discussing academic problems, helping with assignments and discussing feedback. Personal tutors also offer academic development: supporting students to develop study skills. They also provide pastoral support; i.e providing support with personal issues or signposting students on to further support. They are responsible for identifying another individual or service to provide appropriate information advice and guidance and identifying students at risk and/or working with students at risk. Lastly, personal tutors are expected to provide support access to information, advice and guidance for students who are thinking about leaving and integrating students into the wider university experience.

Peer mentoring is a process by which a more experienced/ able student instructs, counsels, guides and facilitates the personal and intellectual development of a less experienced student (Holmes, Holmes & Hanton-Hudson, 2007). The purpose of mentoring is to encourage student transition from secondary school and enable the navigation of, and integration into higher education. The student mentor program runs along SI lines in so far as it uses the concept of students helping others with learning problems. However, there are fundamental differences between the student Mentor Programme and SI programme. Ntombela, Ogram, Zinner, Tshabalala and Majola (1994) identify the following difference between the student Mentor Programme and the SI programme: Firstly, the student mentor programme does not insist that mentors sit in on all classes, while the SI programme insists on mentors to sit in all classes. Secondly, the emphasis on the student mentor programme is not only on academic content but, also on empowerment of both first year students and senior students themselves whereas SI focuses on academic content and empowering first year students only. Thirdly the student mentor is trained to be a resource in the department: not to re-teach what academic staff members have taught, but to help junior students to develop skills to deal with their learning problems. In the case of SI, the SI leader finds himself/herself having to re-teach what academic staff members have covered.

Peer mentoring has been advocated as a transformation strategy in higher education (Blunt & Conolly 2006) as has been its integration into the broader context of student learning and development (Van Wyk & Daniels 2004). Peer mentors facilitate the induction and retention of students and enable them to realize their potential by providing psychosocial guidance and support.

over and above these above approaches, Thomas (2012) also suggests effective approaches to providing academic development and support. Firstly; students prefer to receive their academic development and support within their academic department. Secondly; sharing concerns allows students to realize that many of their worries about studying are normal and/or shared by others. Thirdly, effective

approaches provide time to enable students to understand academic development, to reflect on their learning, and to undertake follow-up work. Fourthly; tutors were a popular and effective way of receiving academic development and support. Lastly; mentoring can also provided students with access to useful academic development and support, especially as a mentor was more accessible to students than other members of staff.

Academic support programs are very important in enhancing student's academic performance, especially with students from previously disadvantaged universities like the one under study. In addition, without the adequate support of students, facilitators, coordinators, and lecturers from different departments, it will be difficult for any support programs to achieve their results. Academic support as a variable has been identified as addressing the under-preparedness of students and to construct the appropriate intervention programmes which will allow students to engage effectively with the institution. To achieve this, it was of essence to invest time and effort in students in areas such as skills development, mentoring and tutoring. It was envisioned that this would foster confidence among students to continue in their chosen course of study with the aspiration of completing.

The final ingredient for increasing higher education success is to keep the institutions' support mechanisms constantly under review. This means regular and ongoing evaluation and invigoration of the formal, as well as the informal, support mechanisms provided by centres and those from within the wider university. Support mechanisms need to stay responsive to current students' needs and aspirations, and be flexible enough to adapt to changing student circumstance (Andersen, Bunda & Walter, 2008: 5). It is necessary to have in place, a cyclical evaluation process so that feedback gained from students can be used to make improvements that will effectively build a stronger and compatible education and support process. An assessment of whether or not academic support programmes meet the needs of students is necessary. The study anticipates that student satisfaction with academic support would assist in overcoming the present attrition rate and poor completion rates for students at the selected comprehensive institution.

2.3.3 Satisfaction with teaching approaches

According to Ayeni (2011), teaching is a process that involves bringing about desirable changes in learners so as to achieve specific outcomes. The primary purpose of teaching at any level of education, is to bring a fundamental change in the learner (Tebabal & Kahssay, 2011; Ganyaupfu, 2013). Facilitation of the process of knowledge transmission requires that the teacher applies appropriate teaching methods that best suit specific objectives and level exit outcomes (Ganyaupfu, 2013). Adunola (2011) indicates that, in order to bring desirable changes in students, teaching methods used by educators should be best for the subject matter. Furthermore, Bharadwaj & Pal (2011) maintained that teaching methods work effectively if they suited learners' needs, since every learner interprets and responds to questions in a unique way (Chang, 2010). As such, alignment of teaching methods with students' needs and preferred learning, influenced students' academic attainments (Zeeb, 2004). The present study sought to find the effect of teaching methods on student satisfaction in higher education.

The study is of the view that the most commonly used teaching methods in the college/university classroom today are teacher-centered as opposed to student-centered approach, mainly because the subject matter in the tertiary level require higher level abstraction skills that can only be satisfactorily delivered by teachers who have acquired mastery in that area. The study argues that different teaching approaches used by lecturers can develop estimates of teacher effectiveness in producing student outcomes. Opdenakker, De Fraine, Van Damme, Van Landeghem and Onghena (2002); McCaffrey, Lockwood, Koretz, and Hamilton(2003) and Thum (2003) suggest the need to adjust estimates either for individuals' backgrounds (within classrooms) or classroom composition (between classrooms), which increases equity concerning the context in which each teacher operates. The impact of teaching components on student learning can depend on the type of outcomes measured (e.g. cognitive, learning processes, affective) and students' learning contexts (Seidel & Shavelson, 2007).

Until today, questions about the effectiveness of teaching methods on student learning have consistently raised considerable interest in the thematic field of educational research (Hightower, Delgado, Lloyd, Wittenstein, Sellers & Swanson, 2011). Moreover, research on teaching and learning constantly endeavours to examine the extent to which different teaching methods enhance growth in student learning. Quite remarkably, regular poor academic performance by the majority students is fundamentally linked to application of ineffective teaching methods by teachers to impact knowledge to learners (Adunola, 2011). Substantial research on the effectiveness of teaching methods indicates that the quality of teaching is often reflected by the achievements of learners.

In order for the method used for teaching to be effective, Adunola (2011) maintains that teachers need to be conversant with numerous teaching strategies that take recognition of the magnitude and complexity of the concepts to be covered. Stensaker (2008) states that the quality of teaching and learning, and the way they are improved, impact students' retention and success. Chickering and Gamson (1987) as cited in Mustafa (2015) highlight seven principles for good practice in undergraduate education which keep retention rates high and ensure sustainability of program courses. These are; encouraging contact between students and faculty, developing reciprocity and cooperation among students, encouraging active learning, giving prompt feedback, emphasizing time on task, communicating high expectations and respecting diverse talents and ways of learning.

2.3.3.1 Teacher- centered approach

Back (1999) as cited in Sawant and Rizvi (2015) defines teacher-centered approach as situations in which the teacher asserts control over the material that students study and the ways in which they study it i.e., when, where, how, and at what pace they learn it. In classes that are considered teacher-centered, the teacher tends to be the most active person in the room and does most of the talking for example by lecturing, demonstrating concepts, reading aloud, or issuing instructions, while students spend most of their time

sitting in desks, listening, taking notes, giving brief answers to questions that the teacher asks, or completing assignments and tests.

In addition, the approach is least practical, more theoretical and involves much memorizing (Teo & Wong, 2000). It does not apply activity based learning to encourage students to learn real life problems based on applied knowledge. Since the teacher controls the transmission and sharing of knowledge, the lecturer may attempt to maximize the delivery of information while minimizing time and effort. As a result, both interest and understanding of students may get lost. To address such challenges, Zakaria, Chin and Daud (2010) advise that teaching should not merely focus on dispensing rules, definitions and procedures for students to memorize, but should also actively engage students as primary participants.

A teacher who uses a teacher-focused strategy in a course, conceives his teaching of that course in a limited way. In teacher- centered approach students either listen to their instructor/professor or they are asked to present a topic to the class as has been the practice of so many tertiary level faculty. For purposes of assuring that the content being imparted is adequate, teacher-directed activities may be beneficial to some degree, but could somehow be considered lacking because they may not help students to prepare for the reality shocks associated with the real pre-service teaching. Walker (1998) argues that a strong predictor for students' better outputs is instructional alignment or the linkage between the intended outcome, the instructional processes and the post instructional assessment. He stresses the idea that the tighter the linkage, the better the alignment; resulting in higher achievement. This means a strong relationship between the teacher and a student is a prerequisite for students' higher level of performance.

2.3.3.2 Learner- centered approach

One of the greatest challenges facing educators worldwide today is that of how to produce learners who are critical thinkers. In South Africa, the realisation that critical

thinking is both an important life skill and educational concept, gained prominence since 1995 when it was stated that "the Curriculum, teaching methods and textbooks at all levels and in all programmes of education and training, should encourage independent and critical thought" (RSA, 1997:10-12). This ideal was translated into a plan of action when the development of critical thinking skills was adopted as one of the Critical Outcomes by the South African Qualifications Authority in 1997 (Pienaar, 2001:125). The purpose was to ensure that all South Africans obtain the necessary knowledge, skills and values to become creative and critical thinkers. One way in which critical thinking can be fostered in the classroom, is by applying learner-centred instruction and assessment.

There is a consensus that interactive as opposed to didactic teaching improves academic success and promotes the inclusion of learners who may feel like outsiders (Crosling, As-Saber & Rahman, 2008; Parker et al., 2005; Haggis & Pouget, 2002; Thomas, 2002; Bamber & Tett, 2001). Student-centred learning conceives of students as playing a more active role in their learning processes. Active learning is often associated with experiential, problem-based and project-based learning, and other forms of collaborative learning less reliant on the lecture format.

Table 2-1: Comparison of Teacher-centered and Learner-centered paradigms

TEACHER-CENTERED APPROACH	LEARNER-CENTERED APPROACH
Knowledge is transmitted from professor to students.	Students construct knowledge through gathering and synthesizing information and integrating it with the general skills of inquiry, communication, critical thinking, problem solving and so on.
Students passively receive information.	Students are actively involved.
Emphasis is on acquisition of knowledge outside the context in which it will be used.	Emphasis is on using and communicating knowledge effectively to address enduring and emerging issues and problems in real-life contexts.
Professor's role is to be primary information giver and primary evaluator.	Professor's role is to coach and facilitate. Professor and students evaluate learning together.
Teaching and assessing are separate.	Teaching and assessing are intertwined.
Assessment is used to monitor learning.	Assessment is used to promote and diagnose learning.
Emphasis is on right answers.	Emphasis is on generating better questions and learning from errors.
Desired learning is assessed indirectly through the use of objectively scored tests.	Desired learning is assessed directly through papers, projects, performances, portfolios, and the like.
Focus is on a single discipline.	Approach is compatible with interdisciplinary investigation.
Culture is competitive and individualistic.	Culture is cooperative, collaborative, and supportive.
Only students are viewed as learners.	Professor and students learn together.

Source: Huba and Freed 2000: 240

The teacher/traditional methods of the university educational process (lecture, explanation, exercise, etc.) are certainly important for professional development. On the contrary, the competence/ student-based approach in the system of higher education is aimed at increasing attention to the effective and technological formation of professional

competences (Yakovleva & Yakovlev, 2014). Professional competence include personal education that determines the productivity of professional tasks and consists of knowledge, skills and professionally significant personal qualities, experiences and value orientations. Student-centered outcomes include being able to interact constructively with teachers and peers, meet academic challenges, and learn actively and collaboratively (Zepke & Leach, 2005).

Dollard and Christensen (1996:3) as cited in Garret (2008) maintain that in teacher-centered classrooms, control is of primary importance and “authority is transmitted hierarchically”, meaning the teacher exerts control over the students. Critics of teacher-centeredness argue that in these classrooms, compliance is valued over initiative and passive learners over active learners (Freiberg, 1999). According to Edwards (2004), for teachers to maintain control over students, instructional methods that promote a focus on the teacher are frequently used, such as lectures, guided discussions, demonstrations and “cookbook” labs (Edwards, 2004). These forms of instruction lend themselves to having the teacher stand in the front of the classroom while all students work on the same task. In contrast, a constructivist/learner-centered teacher is interested in helping the child engage problems and issues, search below the surface, try out various possible solutions or explanations, and finally construct his or her own meaning (Ryan & Cooper, 2001). In these classrooms, teaching methods or strategies include reflective thinking, inquiry, exploratory discussions, role-playing, demonstrations, projects and simulation games (Edwards, 2004).

In a learner-centered environment, design is consistent with evidence showing that learners use their current knowledge and beliefs to interpret new information. Teaching and learning are not two distinct phenomena, but continuously interact with each other. Furthermore, teaching does not automatically lead to learning or other changes. The research on teaching approaches in higher education is very scarce. However, the study reporting on the relations between approaches to teaching adopted by an individual teacher and approaches to learning adopted by his/her students is the one by Trigwell et al. (1999), in which they studied first-year chemistry and physics classes.

They found that if a teacher's focus was on what he or she does or on transmitting knowledge, students were more likely to adopt a surface approach to learning and focus on the reproduction of knowledge. If a teacher adopted a more student-centred approach to teaching, the students were more likely to adopt a deep approach to learning and focus on a deeper understanding of the phenomena they were studying. Thus, a more sophisticated view of teaching amongst teachers seems to be associated with a more sophisticated view of learning amongst students. However, there is little evidence to show that quality teaching actually improves students' learning outcomes, which at a later stage, will improve the student academic integration.

Another research by Kember and Gow (1994) stresses the importance of being aware of the relationship between conceptions of teaching and the way courses are taught. Since the teaching behaviour of a lecturer affects the quality of student learning and the actual approach of a teacher is linked to his conception, teachers' conceptions of teaching can, indirectly, have a profound effect on the learning outcomes of students. Today, most teachers apply the student-centered approach to promote interest, analytical research, critical thinking and enjoyment among students (Hesson & Shad, 2007). The teaching method is regarded more effective since it does not centralize the flow of knowledge from the lecturer to the student (Lindquist, 1995). According to Slavin (1996) as cited in Ganyaupfu (2015), the approach motivates goal-orientated behaviour among students, which is very effective in improving student achievement. According to Yabkovleva and Yakoblev, (2014), the use of student centered teaching methods encourage interest in the profession; promote the efficient acquisition of training material; form patterns of conduct; provide high motivation, strength, knowledge, team spirit and freedom of expression; and most importantly, contribute to the complex competences of future specialists.

Having said the above, the following explanation will give a brief overview of teaching methods applicable in each teaching approach, that is, teacher-centered and student-centered approach. Institutions of higher learning apply different methods of teaching depending on the nature of subject, number of students, and the facilities available

(Sajjad, 1997). For the purpose of the study, the lecture method, training, behavioral modelling and discussion, role play and assignment methods are discussed.

In a lecture method, a lecture is a talk or verbal presentation given by a lecturer, trainer or speaker to an audience. With all the advancement of training systems and computer technology, the lecture method is still widely used in teaching and training at higher levels of education. This method is economical, can be used for a large number of students, material can be covered in a structured manner and the teacher has a great control of time and material.

Training is a teaching method that aims at developing skills and knowledge in any field, by performing sequential tasks, activities or games. This method allows the teacher to give the participants missing information and allows students to form skills of professional and appropriate behaviour in the performance of professional tasks (Yabkovleva & Yabkovlev, 2014). The advantage of training is that it ensures the active involvement of all students in the process of training. Training can provide preparation for professional communication and collaboration, and execution of organizational or supervisory functions. When students are more integrated into active and collaborative learning, they are more likely to retain and persist in the place they study (Mustafa, 2015).

Case method is a teaching method where students draw inferences and make decisions given a detailed description of a scenario often based on a true story (Sawant and Shaheen Rizvi, 2015). The process involves training by solving specific cases. The essence of this method is a collective analysis of a situation, finding a solution and a public defence of said solution. The main advantage of this method is that, students gain the skills of teamwork, independent modelling of the solution, independent reasoning and defending their opinion (Yabkovleva & Yabkovlev, 2014). This method involves ambiguity in the solution of the presented problem, which creates a challenge for discussing the reasoning of proposed solutions and choosing the most appropriate

one. Therefore, the result is, not only knowledge, but also professional skills and a well-formed personality and set of values.

This method is basically used to develop critical thinking and problem-solving skills, as well as to present students with real-life situations. The students are presented with a record set of circumstances based on actual event or an imaginary situation, and they are asked: firstly, to diagnose particular problem(s) only; secondly, to diagnose problem(s) & provide solution(s); and thirdly, to give reasons and implications of action after providing both problem & solution. It is a time consuming method and sometimes the case does not actually provide real experience. It could be in-conclusive, and insufficient information can lead to inappropriate results. At the end, the students want to know the right answer given by the teacher.

Discussion is a free verbal exchange of ideas between group members or teacher and students. For effective discussion, the students should have prior knowledge and information about the topic to be discussed. This method allows everyone to participate in an active process. Kochhar (2000:347) states that a problem, an issue, a situation in which there is a difference of opinion, is suitable for the discussion method of teaching. A study by Sajjad reveals that the students rated group discussion (class discussion) as the second best method by giving reasons that; it has more participation of students, the learning is more effective, the students don't have to rely on rote learning, every student gives his/ her opinion, and this method develops creativity among students.

Role play occurs when participants take on differentiated roles in a simulation. These may be highly prescribed, including biographical details, and even personality, attitudes and beliefs; or loosely indicated by an outline of the function or task. These techniques have already demonstrated their applicability to a wide range of learners, subjects and levels. (Singh & Sudarshan, 2005: 239). It is a memorable and enjoyable learning method. To gain maximum benefits from this method, it is suggested that the incidents selected for enactment should be as realistic as the situation allows.

Written assignments help in organization of knowledge, assimilation of facts and better preparation of examinations. It emphasizes individual pupil work and the method that helps both teaching and learning processes (Kochhar, 2000:358). Written assignments require a teacher to describe the parameters of the topic of assignment and fully explain assignments so that students know how best to prepare (Shea, 2009). According to Davis (1993), teachers are expected to give assignments and exams that recognize students' diverse backgrounds and special interests. The current study investigates whether written assignments impact on student retention.

Stes, Donche and Petegem (2014) argue for attention to be given to context-related variables in studying teaching approaches. In addition, a number of factors situated within the broad context of the learning environment in which teaching practice takes place need to be taken into consideration. In this context, the variables like discipline, class size and level, the prevalent climate regarding student-teacher interactions, and assessment, were taken into consideration.

Biggs (2003: 27) sees the secret of high quality teaching as ensuring that there is “alignment between what we want, how we teach and how we assess” in a system where all components address the same agenda. The researcher strongly believes that effectiveness in teaching promotes the development of high order learning process which eventually leads to high achieving undergraduates. The study seeks to find out the influence of teaching approaches applied by lecturers on student retention.

2.3.4 Satisfaction with assessment techniques

Assessment of student learning is an important function of higher education institutions. It is a way in which institutions assure and express academic standards and has a significant impact on student behavior and their future lives. Rowntree (1977), as cited by Hebblethwaite (2010), defines assessment as getting to know the students and the quality of their learning. The South African Qualification Authority (SAQA, 2001:15) defines assessment in education and training as the collection of evidence of learners' work so that judgments about the learners' achievements or non-achievements can be

made and decisions arrived at. Since approximately the mid-1980s, there has been increasing pressure on institutions of higher education to be accountable to the government, accreditation agencies, the public, as well as students and their parents, by taking responsibility for, and demonstrating the effectiveness of, their educational programme (Olds, Moskar & Miller, 2005:13-14). However, the effectiveness of education programmes is dependent on how well lecturers understand the role of assessment in student learning, and how well they are prepared to change their strategy in such a way that they use assessment as a tool for the improvement of student learning.

Prins, Sluijsmans, Kirschner and Strijbos, (2005: 417) defines two types of assessment as summative assessment and formative assessment. Summative assessment aims to: “determine the success or failure only after a student’s performance” and formative assessment “intends to help students identify their strengths and weaknesses and guide students toward the achievement of learning goals during the learning process”. The importance of formative assessment as stressed by Yorke (2001) is that formative assessment is critical to student learning and retention. Assessment has a major influence on what learners learn, how effectively they learn, and consequently on the quality of their learning. In order to influence the student, appropriate and diversified approaches or forms of assessment practices must be applied.

2.3.4.1 Formative Assessments

Biggs (2003:142) as cited by Woyessa, et al. (2013) defines formative assessment as an assessment that takes place during the process of learning and teaching. According to SAQA (SAQA, 2001:26), the main purposes of formative assessments are, to support the teaching and learning process; to assist in the planning of future learning; to diagnose the learner's strength and weakness; to provide feedback to the learner on his/her progress; and to make decisions on the readiness of learners to do a summative assessment. It is developmental in nature. However, this form of assessment cannot be used to award credit or certificates. Furthermore, Biggs (2003:142) points out that the

students need to learn to take over the role of formative assessment by monitoring themselves as they learn.

Formative assessment is also linked to students' learning processes, helping to guide them in their studies, motivating them, providing feedback on areas of learning requiring further work, and generally promoting the desired learning outcomes. Research on formative assessment by Nicol and Macfarlane-Dick (2006: 205) identifies some principles of good feedback practice, which they define as anything that might strengthen the students' capacity to self-regulate their own performance. These practices are useful in the sense that; they help clarify what good performance is, facilitate the development of self-assessment (reflection) in learning, deliver high quality information to students about their learning, encourage teacher and peer dialogue around learning, encourage positive motivational beliefs and self-esteem, provide opportunities to close the gap between current and desired performance, and provide information to teachers that can be used to help shape teaching.

Brown (2001:17) concur with the above statements and highlight the importance of formative assessment for the purpose of feedback in order to motivate students and to inform them how to improve their knowledge base, understanding, and problem solving skills. The study will find out whether poor student performance that occurs as a result of the choice of assessment method used by the institution, impacts on student decision to drop out of the institution. The researcher was of the view that both teaching methods and assessment methods should be aligned to ensure that desired learning is achieved.

2.3.4.2 Summative Assessment

Summative assessment is a type of assessment that takes place at the end of the time allocated for the programme, course or qualification. It is still part of the learning process, but differs from formative assessment regarding the time it occurs within the learning process (Le Roux, 2004:57). Similarly, the South African Qualification Authority (SAQA, 2001) indicates that the purpose of summative assessment is to make a judgment about achievement of a learner at the end of a programme of learning.

According to Miller, the primary purpose of assessment is to be summative. In its summative role, the purpose of assessment is to judge the quality and characteristics of the student and summarise these in a clear and widely acceptable format. Traditionally, the principal mechanism for summative assessment is the end-of-module examination. It is assumed that summative assessment helps employers by providing 'costless' information on the productive potential of job applicants. It is also a mechanism for selecting students for post-compulsory education, and may be a factor in the reputation and financial security of institutions in higher education. Students care most about the results of summative assessment, as it impacts on employability and prospective earnings.

While most assessment is both summative and formative, it is argued that the summative function increasingly predominates in a way that adversely affects student learning. Assessment also contributes to evaluating the strengths and weaknesses of modules and improving the quality of learning delivery. Boud and Falchikov (2007:3) point out that assessment has a powerful effect on what students do and how they do it. It further communicates to them what they can and cannot succeed in doing, and also builds or undermines their confidence - as learners on a course and in the future.

2.3.4.3 The purpose of assessment

According to Brown (2001:6) as cited in Woyessa (2013), there are three main purposes of assessment namely; to give license to proceed to the next stage or graduation, to classify the performance of students in rank order, and to improve students' learning. McColloch (2007) identifies a variety of reasons for assessing, and these are summarised in Table 2.2 below. The table shows that purposes of assessment are varied and related. It is important to realize that to set an assessment task for one or more of these purposes and then to assume that the results are appropriate for other purposes, may not be true. There are also different stakeholders in assessment, and one needs to be aware that concerns are not always mutually compatible. For example,

what is appropriate for a student in helping him or her to learn, may not yield information appropriate for an employer.

Table 2-2: Purpose of Assessment

For Students	- To provide feedback - To promote learning - To diagnose (at commencement, during or at end, readiness to proceed, strengths and weaknesses) - To motivate - To provide a profile of what has been learned
For teachers	- To establish level of achievement (summative) - To pass or fail a student - To grade a student - To establish progress - To determine extent to which course/module aims and objectives/outcomes have been achieved - To provide feedback on effectiveness and other aspects of learning environments - To licence to practice - To predict success in future courses - To predict success in employment - To select for future employment - The last three may also apply to 'Society'
For society	- Credibility (select for entry into employment, further training) - Monitoring standards (accountability) - To determine whether a student is safe to 'practice' - To make the course / module appear 'respectable' and creditworthy to other institutions and employers.

Source: McCulloch, 2007: 4

The above figure shows that assessment is beneficial to the student, to the teacher and to the society. Improvement of learning results in better performance by the student. Pressure on instructors to diversify learning aims and assessment procedures also comes from students themselves, in a competitive labour market. McCulloch (2007) is of the opinion that tension in assessment lies between assessment for the purpose of

providing feedback and helping students to learn, and assessment for the purpose of establishing level of achievement. Forms of assessment which are best suited to helping the learning process, may well be seen to be unreliable when it comes to judging of summative achievement. It is often the latter which influences the choice of assessment practice, often to the detriment of supporting student learning and engendering an instrumental focus on assessment on the part of students.

Assessment serves as a mechanism to direct the instructional process through pervasive observation, monitoring, and transaction that takes place in classrooms (Nitko, 2004). Instructors determine whether a lesson is going well and students are understanding, through observation during learning, through student responses to questions, and through student interactions (Nitko, 2004). It is clear that the framework for the assessments and the framework for the curriculum and instruction must be one and the same. This is not to imply that the needs of assessment must drive the curriculum, nor that the curriculum description will entirely determine the assessment; but rather, that the two, assessment and instruction, must be in sync; meaning they must both be designed to achieve one goal, which is learning (Wilson and Scalise, 2006).

Assessment, as a means for directing instruction, helps to diagnose learning difficulties, helps the instructor to identify the learner's areas of strength and weakness so that he/she plans instruction to remediate them in formal and informal ways (Mikre, 2010). Assessment reports individual learning achievements or grades for various parties including students, parents, education institutions to which students may apply for admission, potential employers, occupational, and professional licensing bodies. Black and William (1998) as cited by Wilson and Scalise (2006), found that effective assessment practices can play a powerful role in the learning experience, moving an average student, for instance, to the top third of the class, only if certain conditions are satisfied. Student tasks need to be aligned with learning goals, and students need to receive meaningful and timely feedback on their performance, as well as targeted follow-up work. To regulate their learning effectively, students need to understand the

measures on which they will be judged, where they stand on these measures, and how they can improve (Black and Wiliam 1998: 143)

Nitko (2004) indicate that results from classroom learning activities, quizzes, tests, class projects, assignment papers, informal observations on how well the student has attained the intended learning targets, can be used to grade students for a lesson, or unit, a marking period, or course. Moreover, assessment directs students to instructional priorities and influences their approach to experience course curriculum. Furthermore, assessment is also useful in enhancing student motivation, self-concept, and a sense of self efficacy (Mikre, 2010). When assessment, designed to produce real success in student learning and curriculum experience, frequent use stimulates student confidence and willingness to learn.

Meherns and Lehman (1991) as cited in Mikre (2010), describes the importance of assessment in; increasing student motivation towards a course, encouraging good study habits, and providing feedback that identifies strengths and weaknesses of learners. Teachers can use assessment to guide decisions about the learners. The researcher believes that the earlier diagnostic and achievement data from assessment the lecturer has about students, the more appropriate the assistance will be provided to students about their learning and about their academic performance. Hence, the study sought to find out to what extent assessment methods contributed towards the improvement of student retention in higher education. The researcher strongly believed that decisions made by the student, whether to stay or leave the institutions, depended on good academic performance during the particular year of study.

2.3.4.4 Types of Assessments in higher education

Lecturers in the institutions of higher education used different strategies in order to assess students' learning outcomes. The main aim of assessment at classroom level is to ensure that students know what and how well they are learning and performing. In addition, assessment of learning outcomes is meant to provide feedback for students and teachers about students' progress, in order for both to improve the efficacy of their

work (UNESCO, 2006). Learning assessment also provides feedback to educators, parents, policy makers, and the public, about the effectiveness of educational services (Stephens & Moskowitz, 2004).

In various institutions of higher learning, assessments fall into both at one of each categories; examinations or coursework. Table 2.3 below gives a brief summary of approaches that have been used for both examinations and coursework

Table 2-3: Categories of assessments

Examinations	Unseen Paper (standard exam) Open Book (students can take books in to refer to) Seen Paper (students are given the paper before the exam) Single essay exam (three hours on prepared topic) Take-away Paper (students are given 2/3 days in which to do exam) Oral exam OSCE (clinical settings) Essay questions; short answer questions; practical and other performance testing approaches; objective questions e.g. multiple choice, true/false statements, matching statements, etc.
Coursework	Project reports, Field work reports, Laboratory reports Portfolios, Reflective logs Group work/group projects, Presentations Essays, reports, critical reviews, Articles Reaction papers (short critical reviews of course reading undertaken regularly throughout course) Question setting (student task is to set questions or design task most

	appropriate to assessing the subject) Objective questions, Short answer questions, Practicals Dissertations Production of a video, Production of a magazine / newsletter / exhibition / play Any others?

Source: McCulloch (2007: 6)

Written examinations can be used as formative assessment as well as summative assessment. Coursework is very often used as a summative assessment tool. To summarize, formative and summative refer to the purpose of assessment rather than to specific methods.

Assessment practices chosen by academics are likely to be influenced by how academics view the nature of knowledge, learning, teaching and the purposes of assessment (Samuelowicz & Bain, 2002). Lecturers who view teaching as exposition, and learning as reproduction, tend to believe that assessments should determine how well students can reproduce the knowledge they have been given and how well they can use that knowledge in much-practised tasks. However, lecturers who view teaching as facilitating learning, and learning as constructing a personal understanding, tend to believe that assessments should require purposeful transformation of knowledge to address open-ended issues or problems not previously encountered.” (Samuelowicz & Bain, 2002: 196).

Institutions of higher learning use different strategies to assess student learning outcomes. Broadly, they can be categorized as traditional type of tests (selective type and supply type tests) and performance and problem-based assessments (portfolios, project work, work- based learning, reviews and annotated bibliographies, self -and peer assessment and group work). On the one hand many traditional types of tests

encourage surface approach to learning where the intention is to memorize and rehearse (Norton, 2007). Furthermore, performance and problem-based assessments encourage deep approach to learning where the intention is to make sense of the subject in terms of understanding and prior knowledge through active, transformative and constructivist approach to learning (Norton, 2007)

Performance-based assessment is one of the three approaches in alternative assessment. According to Simonson, Albright and Zvacek (2000), there are three approaches in alternative assessment: Authentic assessment, performance-based assessment, and constructivist assessment. Researchers and educators use the term performance-based, alternative, and authentic assessment interchangeably. This means the term performance-based assessment embraces both alternative and authentic assessment. According to Elliot (1995), there are two major concepts that describe performance assessment, namely; performance and authentic. Performance refers to a student's active generation of a response that is observable either directly or indirectly via a permanent product. Authentic refers to the nature of the task and context in which the assessment occurs is relevant and represents real world problems or issues. Authentic assessment aims to relate the instruction to the real-world experience of the learners. The task needs to be meaningful in order to be authentic (Simonson et al., 2000)

According to Elliott (1995), in order to increase the effectiveness of performance assessment, instructors need to pay attention to the following: firstly, selecting assessment tasks that are clearly aligned or connected to what has been taught; secondly, sharing the scoring criteria for the assessment task with students prior to working on the task; thirdly, providing students with clear statements of standards and/or several models of acceptable performances before they attempt a task; fourthly, encouraging students to complete self-assessments of their performances; and lastly, interpreting students' performances by comparing them to standards that are developmentally appropriate, as well as to other students' performances.

The most widely used traditional assessment tools are multiple-choice tests, true/false tests, short answers, and essays. True/false tests items require students to make a decision and find out which of two potential responses is true. Since they are easy to score, it is also easy to administer. However, guessing might increase the chance of success by 50%. In cases where the test item is false, it is quite hard to find out whether the student really knows the correct response. One possible solution is to ask students to provide an explanation for the incorrect item, or rewrite the statement correctly. This increases the possibility of scoring negatively (Simonson, Smaldino, Albright & Zvacek, 2000).

Multiple-choice tests are commonly utilized by teachers, schools, and assessment organizations for the following reasons (Bailey, 1998: 130). They are fast, easy, and economical to score. In fact, they are machine scorable; they can be scored objectively and may give the test an appearance of being fairer and/or more reliable than subjectively scored tests. They reduce the chances of learners guessing the correct items in comparison to true-false items. Simonson et al. (2000) claims that, depending on the level of cognitive effort, multiple choice tests become harder and more time consuming to create. In other words, multiple choice items can be used effectively in testing the items that demand low level of cognitive effort such as recalling previously memorized knowledge, yet items that require students to use higher order thinking skills, such as analyzing and synthesizing, are more difficult to produce.

Essays are effective assessment tools since the questions are flexible and assess the higher order learning skills. However, they are not very practical due to the fact that it is very difficult and time consuming to score the essays. Moreover, subjectivity might be an issue in scoring. Creating a rubric might be helpful to grade the essays (Simonson et al., 2000). A rubric can be defined as “a criteria-rating scale, which gives the teachers a tool that allows them to track student performance” Instructors have an option to create, adapt, or adopt rubrics depending on their instructional needs.

In short-answer tests “items are written either as a direct question requiring the learner fill in a word or phrase or as statements in which a space has been left blank for a brief written answer” (Simonson et al., 2000: 270). Furthermore, the questions need to be precise. Otherwise, the items that are open to interpretations allow learners to fill in the blanks with any possible information.

Alternative assessment strategies include open-ended questions, exhibits, demonstrations, hands-on execution of experiments, computer simulations, and portfolios (Dietel, Herman & Knuth, 1991). The two common alternative assessment techniques, portfolios and projects are discussed in the next section.

Scherba de Valenzuela (2002) as cited in Hodgman (2014) describe student portfolio as a collection of student work and related material that depicts a student’s activities, accomplishments, and achievements. This collection should include evidence of student reflection and self-evaluation, guidelines for selecting the portfolio contents, and criteria for judging the quality of the work. Generally, there are two types of portfolios, “process portfolios” which document the stages of learning and provide a progressive record of student growth, and “product portfolios”, which demonstrate mastery of a set of learning objectives (Scherba de Valenzuela, 2002). It has been reported that lecturers are reluctant to use portfolios in their classrooms out of fear that they will be too time-consuming, hard to manage, and difficult to score (Cimer, 2011). At the same time, portfolios are regarded as one of the most innovative learning tools in the last two decades because they offer both learning and assessment advantages by encouraging learners to study regularly, promoting learner self-awareness, and producing positive affective learning outcomes (Cimer, 2011).

Projects can be created individually or as a group. In addition, projects possess authenticity, real life related concepts, as well as prior experience of the learners. Any type of method that requires a student to display what he knows about a specific topic is considered as a project. Examples of projects include, development of plans, art work, research proposals, multimedia presentations. Problem-based learning requires

learners to use their problem solving skills to respond to a given situation. For instance, they can be presented with a scenario and asked to provide strategies or solutions. The task is assigned to either individuals or groups (Simonson et al., 2000).

Mills (2003) emphasizes the role of group work in encouraging deep learning and developing specific 'life skills' such as decision-making, teamwork and communication skills. The importance of group work for social and academic integration, student retention and engagement is also well established (Bourner, Hughes & Bourner, 2001). Most importantly, however, students often view group working as educationally valuable and socially enjoyable in many respects (Mills 2003, Gupta 2004, Knight 2004). Maguire and Edmonson (2001) note that students particularly dislike peer assessment and their concerns are about the lack of fairness, injustice and unreliability in relation to group work assessment. Motivation of participants has been identified as one of the most serious problems in groupwork as some group members may be reluctant to participate in assessment tasks and be uncommitted to the aims of the group (Kerr & Bruun, 1983; Morgan 2002). The study seeks to find out the influence of assessment techniques on student retention.

Today, more types of assessments are available than traditional exams yet research indicates exams are still widely used, particularly at postgraduate level (Brown 2012). Brown identified that "most assessments in current use relies principally on very traditional methods – particularly unseen time constrained exams, essays, and above all, dissertations and other lengthy written assessments" (Brown 2012:1). Research by (Murphy 2006) often refers to assessments that are more complex and challenging than traditional tests. They examine performance on worthy or valued activities as opposed to assessment that largely tests the ability to recall knowledge (Wiggins 1990).

Sambell et al. (2013) identify two different concepts of authentic assessment. Authenticity in assessment can refer to activities that have relevance to or simulate work related activities requiring students to use the skills they would be using in the work place. Wiggins (1990) states that "Authentic tasks involve "ill-structured" challenges and

roles that help students rehearse for the complex ambiguities of the “game” of adult and professional life.” The second approach to authenticity in assessment is about ensuring assessment design is not influenced primarily by time and resources, but instead, is focused on ensuring that educational learning outcomes are genuinely assessed (Murphy 2006). This, however, does make the assumption that the learning outcomes are appropriate for the changing nature of Higher Education as identified by the HEA (2012). Traditional assessments often fail to address the concept of authenticity and the wider approach to skills, as well as knowledge development required within the Higher Education sector.

2.3.5 Satisfaction with learning facilities

The purpose of teaching and learning process is to bring about desirable change in the learner’s behavior through critical thinking. The process does not take place in a vacuum, but rather in an environment structured to facilitate learning. In an ideal situation, for teaching and learning to take place, there must be adequate infrastructure (Anifowose & Lawal, 2013). Infrastructural facilities are those physical resources put in place in the school system which are used for the benefit of teaching learning processes and for effective academic goals achievement (Ogundele, 2013). Infrastructure facilities include buildings, grounds, utilities, and equipment; and will typically represent the majority of an entity’s capital asset. However, facilities are normally designed or selected based on the needs of operation processes of the organization. Facilities can have a significant impact on organizational performance (Hasbullah, Isma’il, & Yusoff, 2010, Kasim, Abubakar, & Ishiyaku, 2013). The study is of the view that the environment must be conducive to support the student learning process.

The researcher observed that there is a decline in quality of education due to over-enrolment, inadequate teaching and learning facilities and low staff morale. The study also looks at teaching and learning facilities from the perception of the student, and whether these facilities have an impact on student decisions to drop out. Provision of instructional materials has an impact on student learning and achievement in educational system.

Researchers such as Earthman (2004) and Higgins, Hall, Wall, Woolner and McCaughey (2005) support earlier findings linking quality of facilities to student achievement. Overcrowded facilities poorly maintained lecture and library buildings susceptible to weather hazards, and inadequate teaching and learning resources, are likely to impact negatively on student achievement and academic staff motivation. It is a concern that over-enrolment by institutions of higher learning has not been supported by building infrastructure and teaching and learning resources. Due to lack of resources, students have to learn in a congested environment and staff members have to teach very large classes with limited resources. Generally, space for learning is a place for delivering knowledge or where the process of learning is conducted (Amin, Razzaly & Akasah, 2012). In higher education (HE), this term physically encompasses lecture theatres, classrooms, tutorial rooms, seminar or conference rooms, learning studios and libraries.

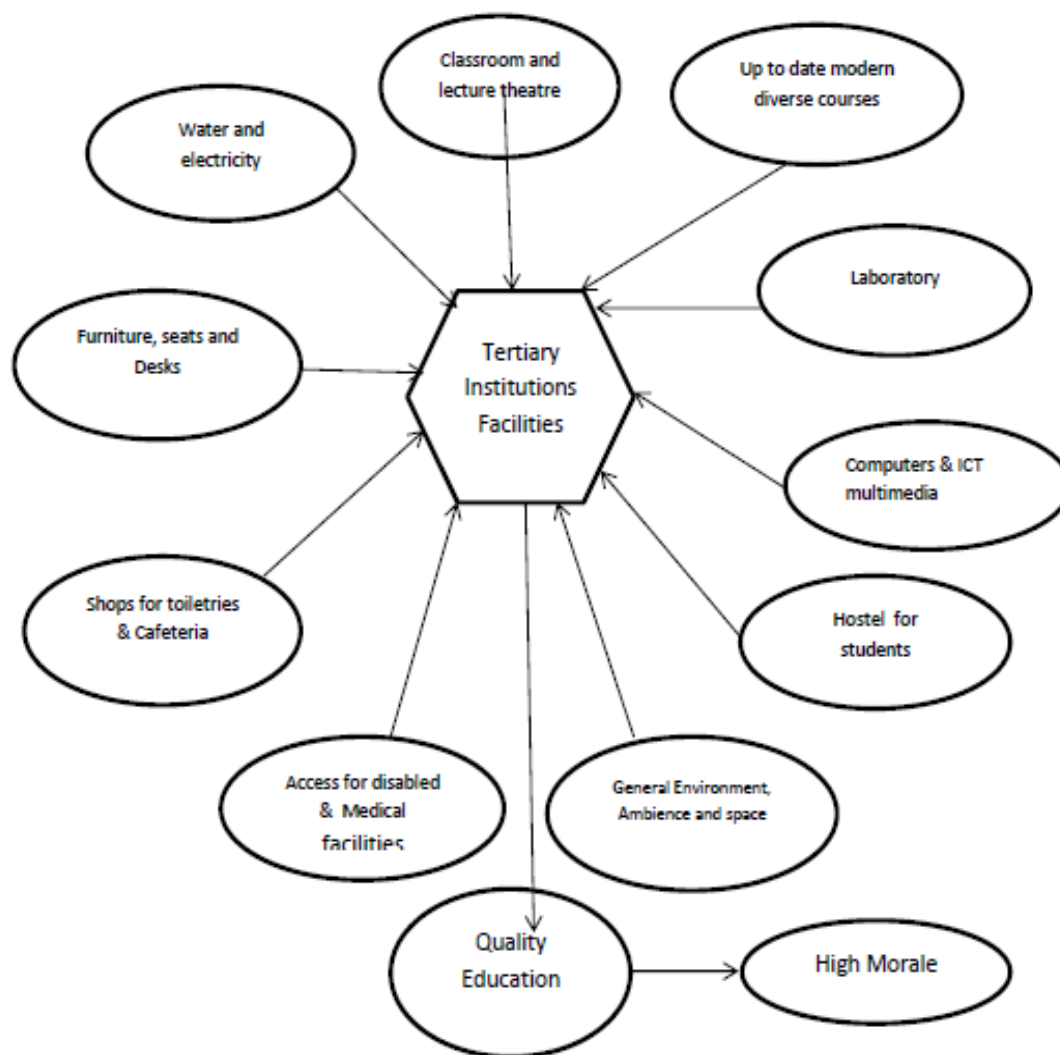


Figure 2-5: Physical facilities in higher education

Source: Bakare (2009: 7)

The quality of learning facilities is an important concern to educators, even though there is no agreement on what a quality facility is or how to measure it from the education point of view. A number of studies suggested a number of criteria that may be used to measure quality of facilities. Adequacy assessments for example, are important indicators. Such questions as whether the facility adequately supports the desired educational programme or enables the development of learning environments that

support students and teachers in achieving their goals, are critical measures of a quality learning facility (Abend, et al., 2006 and Schneider, 2004). Yurko (2005) argues that space quality is a function of an educational facility. Examples of space quality are a learning facility having adequately sized classrooms, availability of natural lighting, and a welcoming atmosphere.

According to Allan and Clarke (2012), the issues relating to the nature of the learning environments that are most conducive to effective support of learning, centre on three facets. First, the type of skill-oriented outcomes which students are expected to learn. Second, the kind of learning activities which are most likely to result in these desired outcomes being achieved, including how students learn with, and where students best learn. Third, the curriculum design structures at a program or modular level, which offer the most effective environments. Considering the above factors, the learning facilities should be aligned with the requirements of programmes offered by the institution to facilitate learning. The physical environment is bound to play a significant role in how teachers approach their teaching or how they view what is possible within a particular place.

According to Kolb and Kolb (2005), learning is conceived as a process not as outcomes. Kolb and Kolb (2005) highlight four sets of principles important for creating spaces for the enhancement of learning in higher education. The first set of principles deals with experiential learning in two senses; respect for learners and their experience, and beginning learning with the learner's experience the subject matter. These principles ensure that students learn by directly relating to the subject matter based on their past experience. Institutions should create a learning environment where the student's past experience is recognized and valued. This further contributes to confidence building in students who are treated as already having a body of knowledge which they can contribute to the class.

The second set of principles addresses the learning environment and entails creating a hospitable space for learning and making space for conversational learning. These

principles state that institutions of higher learning should create a learning environment that is safe and hospitable to encourage critical thoughts and discussions of issues and differences. The ambience in class must encourage fearless communication and expression of differences by welcoming and supporting each individual. Furthermore, discussions should be more conversational and conducive to natural thoughts and speech, as opposed to rules of the traditional lecture method of sitting and listening

The third set of principles consists of making space for development of expertise; making space for acting and reflecting; making space for feeling and thinking and making space for inside-out learning. These principles say that emotions influence whether and what the students learn and can determine the cultivation of life purpose out of education. The last set of principle encourages students to learn in a meaningful way that ultimately influences their self-perception and life goal. This is the principle of making space for learners to take charge of their own learning.

In view of the above, learning facilities are about more than the structures. They are about the social relationships within the space. Space can be conceptualized as an interaction between physical and social spaces. McGregor claims that the space is 'made' by the social aspects (McGregor, 2004:2). This attitude is increasing in popularity as it has moved towards creating more open spaces to improve social interactions and student learning opportunities. Bunting (2004) also makes the link between the physical school environment influencing general attitudes to learning. He argues that, if students do not leave school with a love for learning, they will be disadvantaged in today's 'knowledge society' (Bunting, 2004:12). The study concurs with the statement as institutions of higher learning are expected to provide what the student needs by taking into consideration skills that the student must have in order to enter the labour market. The current study sought to find out the influence of learning facilities on student retention.

Uko (2015) indicates that facilities are used to illustrate concepts; provide opportunity for firsthand experience, and for experimentation and demonstration. Facilities are

further used for scientific investigation and discovery; for providing diversity of thoughts; for observation and inquiry; and for development of scientific attitudes and skills to protect the individual and also provide comfort. Prize (2012) categorized learning spaces into formal learning space such as classrooms and laboratories, informal learning space such as libraries, group study spaces and gathering areas and the campus as a whole, including built and natural environment. Gersberg and Helsinki (2007) divide learning environment into physical and virtual environments, as well as a social environment, facilitating both interaction and individual privacy in learning processes.

2.3.5.1 Physical Environment

Physical environment encompasses lecture theatres, classrooms, tutorial rooms, seminar or conference rooms and learning studios (Amin, Razzaly & Akasah, 2012). Physical classroom environment refers to the physical room in which teacher and learners are the main features, as well as its spatial elements i.e., floor, windows, walls as well as other classroom equipment like desks, chairs, rugs, chalkboards, tack boards, easels, counters and computer equipment, among other things (Fisher, 2008). Physical environment can affect students' comfort and also their ability to learn to some extent. Students who are comfortable are likely to get much information as compared to those who are uncomfortable. Besides, the physical atmosphere can also affect the morale of the learners. Unfavorable classroom environment can discourage the learners and they become less willing to learn (Suleman & Hussain, 2014).

In addition, physical environment is regarded as an environment that focuses on teacher's presentation and a place needed for learning, discussion and group work. Traditionally, on-campus university teaching has taken place in lecture theatres, tutorial rooms and laboratories. Thus, the size and form of a lecture theatre governs much of the teaching that happens within it. Although the physical context's influence will vary from teacher to teacher, the physical environment is bound to play a significant role in how teachers approach their teaching or how they view what is possible within a particular place (Jamieson, Fisher, Gilding & Trevitt, 2000).

Agusiobo (1994) as cited by Iso and Yusoff (2015), is of the view that the relationship of the physical environment to teachers' professionalism revealed that physical environment or facilities affect teachers and affect teachers' performance. The most important environmental features which affect teachers' performance are classroom furniture and class equipment. Teachers' performance in class impacts the student's performance in class, which, in turn, affect their grade performance. The quality and quantity of suitable material and physical resources are crucial for the achievement of curriculum objectives.

The current study acknowledges that there is a direct bearing between a range of resources (physical and material) and learning outcomes. Adequate and quality facilities are required for effective teaching and learning to take place. Decent facilities make additional contributions to teachers' work and students' performance. The arrangement of space has immediate and far reaching consequences for teachers' ability to effectively and efficiently accomplish daily activities, for the formation of social and professional relationships, and for the sharing of information and knowledge (McGregor, 2004; Siegel, 1999:4). The study sought to establish the impact of facilities on both the teacher and student performance.

Scott-Webber, Abraham and Marini (2000) studied student and faculty opinions regarding university classrooms in the United States. The study found that lighting and noise control achieved students' satisfaction in upgraded classrooms while in standard classrooms with no noise control, seating inflexibility and lack of social interaction space failed to meet students' and faculty's needs. Furthermore, uninspiring classrooms and unpleasant experiences of space for learning elicited negative comments from the occupants.

The teacher and students are considered the main elements of the classroom environment. Favorable physical environment has a significant and positive effect on the efficiency of any organization and acts as catalyzing agent to provide a straight way

for achieving predetermined objectives of an organization (Suleman and Hassain, 2014). The researcher sought to find out the effect of learning facilities on students' satisfaction.

2.3.5.2 Virtual Environment

Educational institutions can create virtual learning communities by using information and communications technology (Gersberg & Helsinki, 2007). The virtual environment can break physical borders, widening social networks and allowing greater interactivity and rewarding experiences. Many emerging technologies can emulate most traditional classroom equipment and enrich learning. Iqbal (2005) states that the arrangement of classroom educational facilities and instructional spaces may be selected for learning rather teaching. Virtual environment encourages the use of audio visual aids like charts, graphs, maps, globes, radio, mock up, multimedia, computers, overhead projectors and internet (Weiss, 2007). However, these technologies are not utilized in instructional programs as was expected because the design of the classroom physical environment does not support the integration of technology (Suleman, Asmal, Jayed & Hussain, 2011).

In most cases, this is because of the lower quality or less quantity of educational technologies provided to the institution. In some cases, academics are not trained properly for the effective utilization of education technologies for instructional process (Suleman, et al., 2011). It is necessary to design classrooms in such a way that technology may be used effectively. Classrooms should be equipped with modern technologies to ensure favorable and conducive atmosphere for the teaching and learning process. Teachers should be given training in the utilization of technology as it is a vital component of classroom physical setting.

According to the Joint Information System Committee (JISC, 2006), an expensive long-term resource of an educational building should be designed with learning spaces that motivate learners and promote learning activities, provide a unique identity and inclusive environment, support collaborative and formal practice of teaching and learning

activities and be flexible to meet changing needs. In addition, the shift from the teacher-centered approach to student-centered approach in HE promotes active, collaborative and problem-based learning, which directly influences the learning environments.

Tahir et al. (2009) argue that today's teaching and learning environments are incomplete in providing a place and space that meets the needs of problem-based learning (PBL). These researchers have identified three key elements for the design of active learning space suitable for PBL context, namely; providing a sense of belonging space (e.g. small dimension space for small group discussion activity that create an identity for each student population; the use of natural lighting to promote energy efficiency in buildings and it's benefits impacting learning process); catering for the need for flexible and multi-use spaces (e.g. movable furniture for variation in teaching delivery and multifunction activities; highly flexible spaces covering the needs for both student centered and teacher centered approaches; and design features to maximize flexibility and user control); and recognizing the use of non-classroom spaces for learning (e.g. integrated design with an access to other facilities in campus; and the transition space between indoor and outdoor)

Considering the above discussion, it is clear that universities have to constantly maintain the existing building, adapting existing buildings towards meeting educational requirements, dealing with budget constraints, as well as making decision and aligning the universities' policies (Lavy, 2008). Space management has recently been an important consideration to promote space efficiencies, to improve the quality of physical assets of universities and colleges, and also to create identity or landmark buildings (Temple, 2008). Nightgale and O'Neil (1997 as cited by Ogundele, 2013) provide an all-encompassing definition of a quality educational facility as one that is fit for purpose. An educational building needs to have learning spaces that support the learning process; and be secure, comfortable and provide an inspirational setting for learning (Abend et al., 2006). Inadequate provision of such facilities as textbooks and online library services are quality issues in relation to such resources as being "not fit for the purpose" because they are unable to meet the needs of students' learning.

Uline and Tschannen-Moran (2008) hypothesize the likely outcomes of the interplay of quality of facilities and learning environment, by observing that dilapidated, crowded and uncomfortable school facilities are likely to be responsible for low student and teachers' morale, as well as teacher's low retention in such academic institutions. Oyedeji (2012) and Bello (2011) also, state that there is a close significant relationship between the infrastructural development and goals achievement variables of the tertiary institutions like; research publications, students' academic performance, lecturers job performance, school discipline, and community services. Bello (2011) further observes that infrastructural facilities are crucial for students' academic performance and lectures' job effectiveness. The study intends to find out whether poor and inadequate infrastructural facilities have negative significant impact on the students' academic performance and retention.

2.3.6 Satisfaction with student funding services

The South African Higher Education Funding Framework uses funding as a lever to achieve student access, quality teaching and research, and, improved student retention and success (Department of Education, 2003). Students' decisions to enroll and persist in their studies are related to the availability of financial aid (Finnie & Qiu, 2009; Swail, 2006).

Financial aid packages can often be broken down into two types of aid: merit and need-based aid (Carpenter, 2013). Need-based aid is dependent on a student's Free Application for Federal Student Aid (FAFSA) information, and is distributed based on this information; first, by the federal government, then by state government, and finally by the higher education institution itself. Need-based aid aims to encourage students to attend college, but there is growing interest in whether they also help them re-enroll each semester, complete credits, get good grades, and eventually persist and earn degrees (Singell & Stater 2006; Stater 2009).

Stater (2009) defines need-based aid as the sum of all need-based grants and loans, and merit-based aid as the sum of state and institutional non-need-based scholarship. Students will often receive some combination of need-based, merit-based, and then a loan package to cover the entirety of their undergraduate education. As the cost of a college education has continued to rise over the past twenty years, there has been a dramatic shift from grant aid (need-based) to loans, and from need-based aid to merit-based scholarships.

All institutions have a maximum amount of need-based aid any particular student may receive. Financial aid offices continue to rely on federal and College board guidelines to evaluate need, but there is increasing concern among higher education administrators and researchers that resources historically used for need-based aid, are now being used to bid for financially and academically able students (McPherson & Schapiro 1991)..

Merit based aid is associated with a number of different student outcomes, such as high school and college grade point average, or most often, college entrance exams (Curs & Harper, 2012). Merit based aid can cover the entirety of a student's undergraduate education, and depending on the type of merit scholarships a student receives, he or she may have additional funds in cash or check form to use at their pleasure.

Students who borrow rather than work to finance their education are more likely to attend full-time, work less, and engage more in the institutional community. Students who were offered any type of financial aid such as scholarships, grants, loans, or work study had higher retention rates than students who did not receive financial aid ((Hossler Ziskin, Kim, Cekic, & Gross, 2008). Scott, Yeld and Hendry (2007) observe that termination or suspension of studies can result from a range of factors; material and affective as well as academic. Scott et al. (2007) indicate that financial problems are commonly reported as a significant factor.

The literature emphasizes that the prime and most obvious reasons for students' early withdrawal from higher education programs are financial difficulties. Researchers at the Institute for Access Studies note key ways in which financial pressures impact on poor students in the United Kingdom (Thomas, Quinn, Slack & Casey, 2002:5). These are identified as the absolute lack of money, debt and fear of debt; comparative lack of money in relation to previous income levels, and in relation to peers not in higher education; and part-time employment which diverts time and energy from studies. In the United States, the ultimate goal of the financial aid policy is to insure that academically capable students are able to earn a college degree independent of financial considerations (Carpenter, 2013). Thus, the issue of whether need based aid reduces attrition from college is important; because prior research suggests that dropping out of school is frequently a "once-in-for-all decision" (Card & Lemieux, 2000). Tinto (1993) suggests that, "students who are more financially restrained are more likely to drop out". Tinto's statement is the basis for this study as the researcher attempts, in part, to prove Tinto's hypothesis in a newly formed comprehensive institution in the Eastern Cape Province.

In view of the difficult economic climate in SA, as well as the high unemployment rate, it has become almost impossible for many parents to afford class fees and other accompanying expenses which lead to non-payment. Higher education institutions play an important role in providing formalized financial support, mainly through their financial aid services departments (Jones et al., 2008). The main task of financial aid services is to manage and administer financial assistance for needy students, primarily NSFAS loans and other bursaries, scholarships and merit awards.

Jones et al. (2008) further highlight that financial challenges affect students' access to, and continuation of, their studies in the following ways. Firstly, in terms of access, the application fees charged by higher education institutions are a very real barrier to many disadvantaged students, which may exclude them from higher education altogether or preclude them from applying to more than one institution. Secondly, registration and tuition fees are an even greater financial barrier. The NSFAS loan may cover these fees

at many institutions but, if students apply late, they may be unable to access financial aid for the first semester or even for the whole first year of study, if all the funding has already been allocated. Inability to pay these costs at the end of the first year results in students being excluded from re-registering. The processes for the allocation of funds to students need to be reviewed as they impact on student retention.

MacGregor (2007) comments that NSFAS, which provides support to students, is inadequate as it fails to cover the total costs of study. Letseka and Maile (2008) state that lack of finance results in students leaving to work part-/full-time, and that universities have responded by calling on the government to alleviate the financial burdens of students. In Herzog's (2005) study, it was found that middle-income level students were most likely to rely on loans. He also found that the most important retention theory depended on academic preparedness and performance, once at the institution.

Dowd and Coury (2006) analyzed data on community college students to measure persistence levels from the first year to their second year. The pair found that the best retention theory to use with these students included "financial aid education". Their study found that student loans, need-based grants, and work-study had a negative impact on persistence. Additionally, the minority students were particularly ignorant to student borrowing. In turn, by informing these students, many of whom were first generation students, about the financial aid process would prove a higher retention rate. Like the non-community college students, the researchers found that personal and/or financial status and academic performance were the strongest predictors of success and persistence.

The analysis of financial theory when studying persistence is complicated by the fact that there are multiple types of financial aid, and that financial aid is often presented as a package with multiple types of aid offered to a student in the form of grants, loans, scholarships, work study, tuition and fee reductions, among others. Additional studies

have shown that students respond differently to different types of aid and, as can be expected, persistence decisions also vary depending upon the amount of aid offered.

Grants: Hossler, et al., (2008) observe that evidence shows that loans are not as effective as grants in promoting persistence. Research by Hearn and Holdsworth (2004) also makes the case that grants promote attendance much more powerfully than do student loans.

Loans: A loan is a legal contract that includes a promise that future payment with interest will be made in exchange for cash upfront (Carpenter, 2013). Students who take out loans to assist in payment for their education understand that the money is not a gift, merely a cash advance. Students may take subsidized or unsubsidized loans from the government or banks. Subsidized loans generally defer repayment until the student graduates and charge interest rates below market, whereas unsubsidized loans are university-brokered loans from private lending sources that are not deferred until the student completes college and that charge the market rate of interest.

College work-study often compensates students at above market rates for on-campus jobs. Work-study programs can facilitate student persistence when the employment is aligned with students' academic interests and career goals (IHEP, 2001). Work-study programs may be beneficial because of the social integration and availability to academic opportunities that is associated with such programs, which can further promote persistence (St. John, Hu, & Weber, 2001).

Scholarships are university-funded grants that are distributed based on merit rather than need (Carpenter, 2013). Goldrick-Rab and Douglas (2010) notes that scholarships and need-based grants (such as Pell grants) may be beneficial for promoting persistence in community college. However, Pascarella and Terenzini (2005) state that there are mixed results when looking at the effect of scholarships and grants on persistence, and it is less clear which type of aid is most helpful.

In his study examining reasons why lower income freshmen are more likely to drop out than their higher income peers, Bozick (2007) found that affluent students were more likely to have their college educations financed by their parents and to have the means to live on campus without having to work to pay for room and board than lower income students. Conversely, lower income students were more likely to have to work to pay for college and to live at home to save money; both factors that detract from the student's involvement in campus, and that have been shown to contribute to a lower likelihood of persistence (Astin, 1996). Singell (2004) found that providing financial aid to lower income students increases the likelihood of persistence from the first year to final year students. The study also found that increasing the amount of need-based aid for first-year students increases the likelihood of students persisting to graduation. Pascarella and Terenzini (2005) similarly found that providing grant funding for lower income first year students has a positive influence on retention to the final year students. Ismail (2009) studied the mediating effect of information on college choice, and found that students are satisfied with college choice based on their information satisfaction with respect to financial factors (external influences) which include financial aids and affordable fees.

Having noted the relationship that exists between financial aid and student retention, the current study explored how students' perceptions of, and experiences with, financial services play into academic and social integration, either drawing students toward, or away from, campus activities and courses.

2.3.7 Satisfaction with student accommodation

Increasing enrolment of students in tertiary education globally has resulted in student accommodation becoming one of the teething problems faced by higher institutions in developing countries (Sharma, 2012). In many countries, especially in developing countries, the governments have been the main provider of student accommodation for public higher institutions. Due to minimal resources, governments in developing countries are unable to adequately meet the accommodation demand for all public higher institutions (Nimako & Bondinuba, 2013).

Previous studies have examined outcomes including academic performance, persistence, social and academic involvement, values and attitudes, and cognitive outcomes (Kuh et al., 2001; Pascarella et al., 1994). Despite these considerable research efforts, little is known about the effects of living in campus residences and clear answers remain elusive. Few studies have investigated and assessed the impact of students living on, or off-campus on student retention as a dependent variable as in the current study. Over 2,000 colleges and universities nationwide now offer on-campus housing (U.S. Department of Education, National Center for Education Statistics, 2009), and nearly 2.5 million Americans live in college residences.

An early study by Graff and Cooley (1970) with 185 students living on campus and 116 students living off campus, found no difference in their academic performance. The challenge for this study was that it compared students' academic performance after only one semester and not for the whole first academic year. Blimling (1999) nonetheless, supported these early findings. In a review of 21 studies, Blimling (1999) indicated that there was no significant difference in academic performance between students living on campus in university residences and students living off campus at home. In a recent study of 401 first year college students, however, Nicpon, Huser, Blanks, Sollenberger, Befort, Robinson Kurpius (2006-2007) reported higher academic performance for students who lived on campus than those who lived off campus. However, in the study, only first year college students were part of the study. Based on the above researched information, the current study investigates the impact of student accommodation i.e all forms of accommodation, on student retention for final year students.

Today's students expect housing that provides them with more space, more amenities, and more privacy (Kellogg, 2001 as cited in Blazewicz, 2015). Increasing student desires for privacy and luxury, the integration of technology into learning and daily life, and calls for greater sustainability, have changed the residence life landscape, and expectations are that this trend will continue (Devlin, Donovan, Nicolov, Nold, & Zandan, 2008; Marsters & Bliss, 2007; Martin & Allen, 2009; Romano & Hanish, 2003).

Institutions of higher education are to focus on the quality of accommodation that they are providing to students. Students like what they are seeing within the institution which has increased the value and demand for living on campus. Parents and students see much value and practicality in living on campus versus commuting from home or living off campus. Furthermore, on-campus accommodation/housing is an indispensable aspect of the undergraduate experience. While education is the primary mission of a university, institutions have long realized the value of providing housing for their students (Mantra, 2011).

According to Palmer, Broido and Campbell, (2008), the residential environment consists of physical facilities, equipment and furnishings, food services, management procedures, staffing patterns, student codes of conduct and other policies, student activities programming, and all other elements of the total housing program. The above elements are grouped into two elements by Riker and Decoster (2008), and are regarded as physical environment and an interpersonal or social environment, both of which communicate something on a daily basis to students. Physical facilities that support the educational process contribute in important ways to student learning. Proper lighting, soundproofing, and furnishings, for example; can transform a student room from a mere place to sleep into an adequate and private study facility. Alternate places to study within the residence hall as well as typing rooms, music listening rooms, reference libraries, seminar rooms, classrooms, faculty offices, and other facilities that meet the daily needs of students are most helpful.

The interpersonal environment can, likewise, either facilitate learning or, if impoverished, inhibit the educational process. Peer influence, although not necessarily opposed to faculty influence, is probably the more effective factor in determining the direction and quality of student attitudes. Peer norms can dictate the behavior of individual group members. The study acknowledges that students spend more time in their place of residence than in all other locations on campus, and the role of the institution becomes a prominent factor regarding the education process. The basic objectives of student accommodation/housing are presented in Figure 2.6

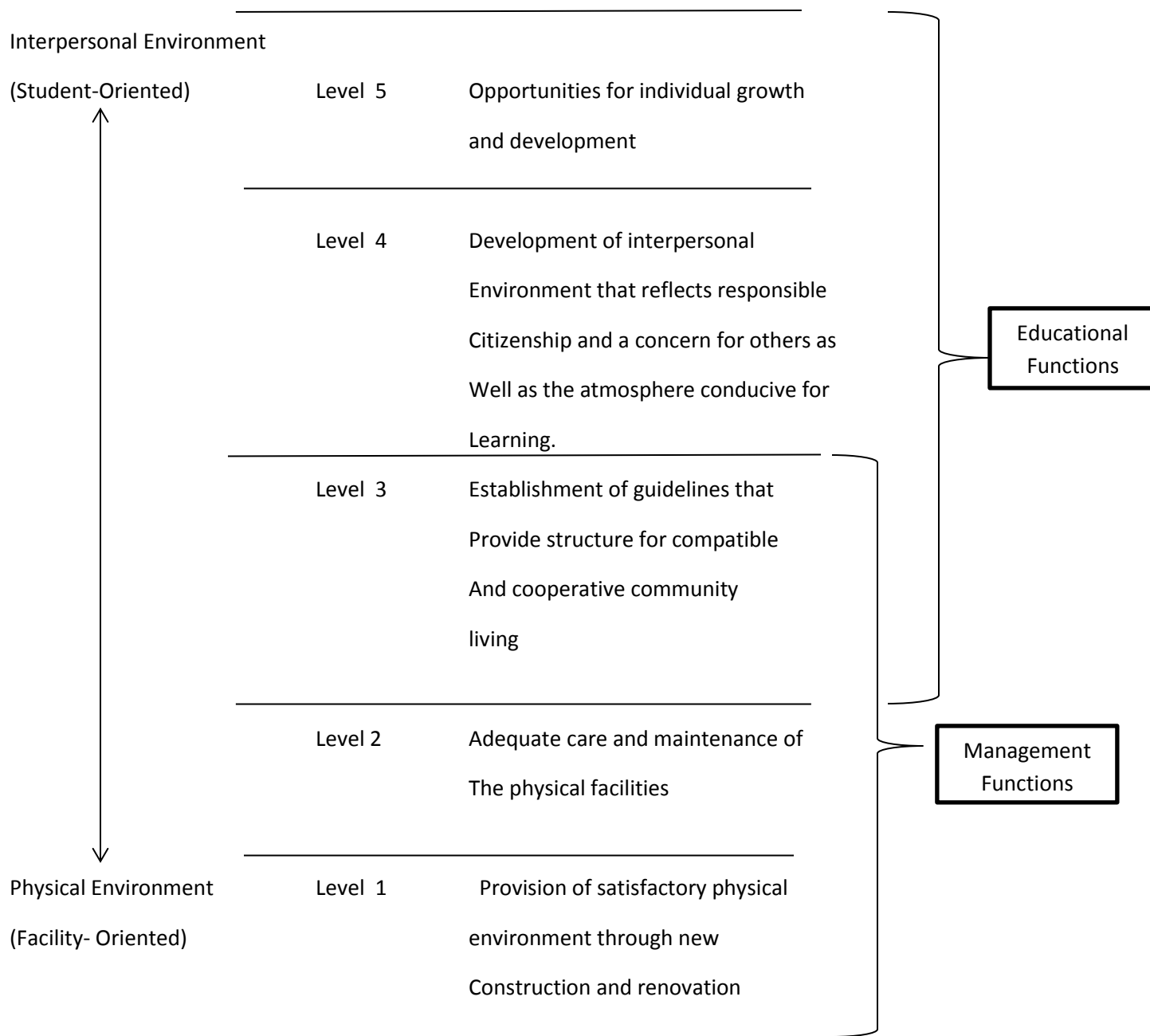


Figure 2-6: General Objectives For College Student Housing/Accommodation

SOURCE: Riker and Dicoster, 2008 :84

Figure 2.6 above shows the interrelated nature of the educational and managerial efforts that are important to the total effectiveness of the housing program upon

students. While the five categories merge and blend to form a continuum, each level represents a somewhat distinct set of student needs. Success at any one level will depend, to a large degree, on how well student needs are fulfilled at lower levels. The point here is that, the overall objectives of college housing are interrelated and interdependent. Unless an adequate job is accomplished in each of the five categories, the housing program will fail to realize its total contribution to the university and to the students it serves.

2.3.7.1 Benefits for student accommodation

Beside the challenges around accommodation, it has been found that residence life is a unique student-experience associated with special benefits. Christie, Munro, and Rettig (2002); Burggraaf, (1997) and Skahill, (2003), as cited by Radder and Han (2009) maintain that students who reside on-campus: generally perform better than those who do not; are better able to develop their social and personal, planning and organizing skills; and are more likely to persist in their studies and attain personal and academic goals.

If implemented correctly, housing fosters a sense of community and builds lifelong connections. A flawed housing program, however, can have deleterious effects. Students enjoy living on campus for the social interactions it provides them during their first year, and they are able to meet other students that they otherwise, would not have interacted with had they decided to commute instead of living on campus (Hoover, 2008). These relationships with their peers, are carried out over the course of the time a student is attending college and living on campus, and these can later turn into lifelong friendships.

Students who live on campus may easily and productively take advantage of a number of university resources when doing school work. Libraries and technology labs in close proximity give students a quiet environment to study or the means to acquire information for their school work, or the technology tools to complete their assignments (Araujo, 2010). Students gain access to information and technology offered by the

university. Living on campus also provides students with safety and security because of the university or college's police force which patrols campus and the residence halls on a regular schedule (Janosik & Gregory, 2003). This is unlike students who live off campus, who rely on the town's local police force for any security issues that arise, but they may not always respond in a timely manner when a serious event occurs (Janosik & Gregory, 2003). With the current state of the economy and rental prices, most on-campus residences are more affordable and safer than their nearby off-campus residences; causing students to want to return to an on campus residence (Hoover, 2008). By living on campus, students do not have to worry about commuting each day or feeling wary if they get out of class late or with after hour activities late at night when they still have to make their way home (Hoover, 2008).

The availability of student accommodation has been acknowledged as one of the major issues that students must consider when choosing a university (Khozaei, Ramayah & Hassana 2012). If universities are unable to provide accommodation for students, students face additional challenges, and the lack of affordable off-campus accommodation may become a significant problem. The result is that, if a student is supposed to make a decision between two similar universities, students may prioritize the university with available on-campus accommodation.

In addition, student accommodation quality (SAQ) has been identified by Nimako and Bondinuba (2013) as an important factor in higher education institutions. Student accommodation quality is defined as the extent to which accommodation services meets students' needs and expectations. The study sought to find out the influence of accommodation services on student satisfaction.

2.3.8 Satisfaction with student administrative services

Student administration service is the process that involves how students, as major service customers, are treated during the service interaction, and outcome is the actual result being experienced by the customers (Cuthbert, 1996 cited by Green, 2014). On a

daily basis, students and staff will interact with the institution and experience varying degrees of services. According to Zeithaml (1988) as cited in Malik and Danish (2010), the resultant outcome of an institution's administrative as well as educational system's coherent performance is satisfaction.

Kotler and Fox (1995) as cited by Sickler (2013), suggest that changes in the higher education landscape are forcing colleges and universities to utilize a more customer-oriented philosophy in delivering their services, while DeShields Kar, & Kaynak (2005) suggest that the satisfaction to retention link must be studied and carefully managed. Administrative services is seen to be a system consisting of various components working together to attain a goal, such as lowering cost, improving quality and service as perceived by the customers in the market it serves (Keyte & Locher, 2004).

Higher Education institutions consist of two components, namely; an academic and non-academic function (Prinsloo, 2013). The latter can also be referred to as support services. "Support service is an extension of student experience and serves as a platform for personal growth and development" (Roland, 2009:21). Administration forms the biggest part of support services and is directly linked to service delivery. The increasing competition among higher education institutions to attract highly qualified students and to retain them is forcing them to pay more attention to service quality issues. This makes it important to examine whether the quality process has produced the enhancement of core outputs. This study measures expectations and perceptions of students to determine their level of satisfaction with the service provided at a selected comprehensive university in the Eastern Cape

The researcher strongly holds the view that students are motivated from the academic side as well as from the administrative efficiency of their institution side. Spooreen, Mortelmans and Denekens (2007) posit the view that the organizational harmony, teachers' intellectual ability, professional development, transparency in students' evaluation, feedback and training, are important features that mentally develop the students. The maintenance of other essentials of quality service in education i.e. well

managed and updated libraries, security systems, medical facilities, class decoration and facilitation with multimedia and sitting arrangements along with administrative staff's cooperation, play a vital role in educational support and development.

Soutar and McNeil (1996: 81) as cited in Prinsloo (2013) posit the need to “integrate a total university perspective which transcends academic boundaries and which acknowledges that perceptions of administrative service quality may be vitally important in students’ overall satisfaction with a particular university”. Both academic and administrative issues of an institution are extremely important in determining the performance of students, development of organizational image, and for quality assurance. Understanding how students perceive the level of service they receive outside of the classroom is important to understanding the drivers of student satisfaction and the resulting relationship with student retention. Kelso (2008) suggests that it is imperative for universities to measure the quality of the services they provide in an effort to decrease student attrition. The study sought to find out the influence of student administration services on student retention.

2.3.8.1 The service quality

Many definitions exist for services. For instance, Palmer (2011: 2) defines a service as: “The production of an essentially intangible benefit, either in its own right or as a significant element of a tangible product, which through some form of exchange, satisfies an identified need.” Zeithaml, Gremler and Bitner (2009:4) state: “services are deeds, processes, and performances provided or co-produced by one entity or person for another entity or person.” The services quality in higher education is mostly recognized by the cooperation of the administrative staff as well as the faculty staff with the students. The majority of the students get de-motivated if they find that the staff is not compassionate and kind. According to Hasan, Ilias, Rahman and Raza (2008), for quality assurance, an institution must train its staff members in a way that it may create a sense of facilitation by means of coordination, cooperation, compassion and empathy.

Gronroos (1982, 1984) was one of the first authors to conceptualise service quality with the development of the perceived service quality model based on the disconfirmation paradigm. The model states that the consumers/students compare their expectations with their perceptions, and the quality of the service is determined by the outcome of this evaluation process. Gronroos (1984) claims that two types of service quality exist, namely; technical quality and functional quality. Technical quality relates to what is provided during the service process (e.g. knowledge, tangibles and technical solutions). These are the relatively quantifiable aspects of the service, which the customer and supplier can easily measure (Gronroos, 1984). Functional quality, however, refers to how the service is provided and the interpersonal behaviours contributed by the service employees during the service delivery. Functional quality is more difficult to measure than technical quality (Gronroos, 1984). Gronroos (2007) proposes that the gap between the expected service and perceived service is of utmost importance and that it is vital for a service organization to keep this gap as small as possible. In addition, it is important for managers to understand how the technical quality and functional quality of a service is influenced, and how customers perceive these quality dimensions (Gronroos, 2007) to ensure perceived service quality is maximized.

The study conducted by Ghadamosi and De Jager (2009) revealed that students' perceived experiences with services at two universities of technology were significantly lower than their expectations of services at their universities. Particular areas of concern were, among others; problems with registration, poor support from administrative staff, use of temporary staff at peak registration periods, and poor computer facilities.

Parasuraman, Zeithaml and Berry (1988) as cited in Stodnick and Rogers (2008) empirically tested the ten-dimension model for service quality assessment many times and reduced them to five dimensions namely; tangibles, reliability, responsiveness, assurance and empathy.

Tangibles refers to the appearance of facilities, staff and study material. It includes general helpfulness of staff, handling of enquiries, convenience of operating hours, user-

friendliness of tutorial letters and study guides, and visual appearance of the departmental website. Reliability is the extent to which a service provider performs the promised service accurately and reliably. Reliability also includes academic competence of lecturing staff, politeness of administrative staff, delivery of study material to empower students, availability of staff during operating hours, and handling of enquiries in a satisfactory way. Responsiveness is the prompt attention and speedy response and includes general experience with efficiency, rapid response in dealing with enquiries, turn-around time with the marking of assignments, information in study material and departmental website. Assurance refers to the ability to convey confidence and trust. Empathy refers to the level of individual attention to student needs like staff members' care for students, experience with individual attention, patience levels of staff, willingness of staff to assist, and follow-up actions.

In summary, the students seek empathy, responsiveness, assurance during their academic development process which then facilitates them to gain extra potential to compete in the market. It is therefore, the effectiveness of the administration and management of a higher education institution that provide the students with quality assurance and personality grooming so that they can benefit to the maximum from it and graduate within the required time.

Having said the above, it is clear that academic administration should be closer to the students and need to be more visible and interact with the students. The department does the paperwork for the university. The student enrolls, registers and gets examination results from the departments. When a student completes his or her studies, he or she will also apply for a graduation qualification to be issued. By becoming a greater part of the campus learning community, most administrators can build relationships with students and emerge from their perceived ivory towers. Students as customers, seek to receive the ultimate satisfaction as well as career opportunities upon graduation. Once the student is recruited, it is upon the institution to take care the students' expectations. This would lead to service quality, satisfaction, a positive representation of the institution, and student retention.

Alves and Raposa (2007) found that student loyalty was the main consequence of satisfaction. Understanding what factors lead to student satisfaction can therefor, have a positive impact on student loyalty and retention behavior. Correct processes must be included when dealing with customers as service delivery is a method of service marketing and customers can be retained or lost due to the quality of service delivered (Wirtz, Chew & Lovelock 2012).

Many environmental variables in higher education institutions are affected by staff members. Environmental variables can include, registration, financial aid, and libraries, as well as student activities, orientation programs, living environments, and learning communities (Farrel, 2007-2008). It has been noted that there is lack research on the effect of staff member interactions with students on student retention. The current study intends to fill that gap by investigating the relationship between student administration services and student retention. It is important for universities to identify whether the institution is meeting customer expectations in the higher education sector. In the current study, the concept student administration service involves staff working together within the customer service areas of the institution, to serve the student with quality service.

2.4 PREVIOUS STUDIES ON INSITITUTIONAL FACTORS AND STUDENT SUCCESS/RETENTION

Much of the research on improving student completion and success, especially in the USA, points to the role of the HE institution, for both procedural and structural issues. A number of researchers has considered the role of the institutions in ensuring that students are retained up until the final year. The role of institutions will be discussed in the next section. This is done in an effort to better understand how the needs and goals of students are achieved. The literature surrounding the issue of student retention is fragmented in its support of Tinto's theory. Kuh, Kinzie, Buckley, Bridges and Hayek (2007) support the notion that there are two sides to the issue of retention, that of the student and of the institution. It is of vital importance to consider both the views of the

institution and the student, noting that the combination of actions undertaken by an institution to support students along with the views and experiences of the students who attend, form the basis for the decision to remain or to depart (Kuh, et al.).

Upcraft, Gardner, Barefoot and Associates (2005) came with the idea of promoting the development of successful relationships among students, faculty, and staff of an institution. They further found that these types of relationships increase student desire to persist at a single institution. Upcraft and Gardner also stress the importance of considering the “institutional climate” which includes relationships with students and institutional members at all levels, the setting, and the services which are available to students on campus. Yorke and Longden (2004) and Thomas (2012) in United Kingdom and Ulriksen, Madsen and Holmegaard (2010) in Germany, identified institutional commitment to improving study success, as vital. This includes the priority given to study success and the associated expenditure; the choice and organisation of academic programmes; a strong culture of student-centred learning and teacher professionalization (e.g. support, development, reward and recognition); and the provision of additional support associated with higher levels of internal monitoring.

Previous studies across Europe, particularly in Germany and United Kingdom, point to the importance of learning, teaching and assessment within academic programs and an institutional culture that values teaching (Georg, 2009; Thomas, 2012). This promotes student engagement and academic integration (Hovdhaugen, Frolich & Arnodt, 2013; Thomas, 2012). Research from the UK, Germany and Norway finds that students’ social integration contributes to student retention (Georg, 2009 and Thomas, 2012). Student support services (including pre-entry preparation, study skills development, pastoral support, counselling, financial planning and budgeting skills, health services, disability support, career guidance and much more) similarly have an impact on improving student completion and success.

Information on 2 513 higher education institutions in the United States showed a dropout rate of 25.9% regarding first year students in 1997 (Fowler, 2008). Students

drop out of, or leave their studies, for a variety of reasons. Dropouts may, inter alia, do so because they are academically under-prepared, others have uncertain academic goals, some lack financial resources needed to remain, and there are those who have trouble commuting to and from the institution or those who fail to connect with the community of students and faculty.

In Australia, the importance of student retention is underscored by its inclusion via institutional statistics as a key performance indicator in educational quality and in the allocation of the Commonwealth Government's Learning and Teaching Performance Fund (Crosling, Heagney & Thomas, 2008). Most studies exploring the reasons for student withdrawal concur that there is rarely a single reason why students leave. In a number of instances students leave as a result of a combination of inter-related factors. A study by Long, Ferrier and Heagney (2006) in Australia, and Jones (2008) in United Kingdom, identified the following categories of reasons why students withdraw; poor preparation for higher education; weak institutional and/or course match, resulting in poor fit and lack of commitment; unsatisfactory academic experience; lack of social integration; financial issues; and personal circumstances.

In Europe, diverse factors that contribute to student dropout have been found across various countries. In the eastern region of Europe, literature identifies lack of teaching skills and the outdated curricula being used (Bairnova,2003). In the northern parts of Europe (e.g., Netherlands) incorrect degree choice contributes to student dropout. In the southern parts of Europe, the problem leans towards historical matters such as family traits as well as higher education restructuring and reforms. In the United Kingdom (UK), factors that contribute to student dropout are finances, personal problems and unhappiness with what courses offer. Several interrelated factors account for student drop out in higher education; some beyond institutions' control. The current study focuses on the institutional factors, those which an institution can exercise control in order to retain student and reduce dropouts.

2.4.1 The issues of student retention in South Africa

The poor performance of students entering South Africa's higher education system has been well documented in the literature. A report released by the Council for Higher Education (2013) found that, only one in four students was able to graduate from a contact-based institution within the minimum prescribed period for the degree. A number of reasons for low graduation rates in South Africa have been documented by researchers.

Previous study by Viljoen and Deacon (2013) investigated the possible effects of social support, academic fit, the psychological conditions of meaningfulness and availability, and engagement on first-year students' intention to stay within educational institution. It was found that if the students felt that the lecturers, significant others and family members cared about their well-being, they perceived their study environment to be safer (Edmondson 2002). The results further showed a strong relationship between social support and academic fit, as well as between social support and intention to stay. This implies that students who experience social support in their study environment will identify more easily with their field of study, and will perceive their fit in their study environment more positively. Social support also had a direct effect on intention to stay, which implies that students who received support from their family, friends and significant others were more likely to stay on at the university (Wilcox, Winn and Fyvie-Gauld. 2005).

Manik's (2014) study on the causes of student departure from a university in KwaZulu-Natal (KZN), found the institutional environment as responsible for student departure, and these included career derailment, a lack of counselling, financial requirements and academic workload demands. In respect of career derailment, students who had departed reported that university personnel influenced them to pursue a career choice that differed from their initial career choice. Students who had departed also shared a lack of academic counselling at the institution and having sparse knowledge of the career options available to them at the institution. The lack of finance was also a key variable in student departure as was the high workload demands with students feeling

unable to cope. The current study investigates the effect of the other related factors on student retention in a comprehensive university of the Eastern Cape.

Eduoloan (2009) reports that the Human Sciences Research Council's (HSRC) recent study of about 34,000 students shows that only 14,000 students graduated with some 20,000 dropping out of their courses, most of them being in either their first year or midway through their second year of study. The HSRC identified two major factors contributing to South Africa's Higher Education dropout crisis, namely; lack of information and lack of finance. In most universities, matriculants are not provided with adequate advice, information and guidance prior to university entrance. Lack of information causes absence of awareness and guidance when deciding on an area to study, thus resulting in a mismatch between what the student wants and what is offered by the institution. In addition to wrong choice, students can be expected to pay between R 15,000 and R 25,000 a year for most undergraduate degree programmes. South Africa's economic position is in a state of turmoil resulting in a decrease of available financial aid and assistance. Students are unaware of bursaries and subsidy schemes and thus, work full time while studying. This in turn detracts them from studies (Eduoloan, 2009).

A study by Scott, Yeld N, and Hendry (2007) has found that 25% of all students drop out in their first year of study, with only 21% being able to graduate within the minimum amount of time that has been allocated for the degree. Another study by Letseka and Maile (2008) places South Africa's overall graduation rate amongst the lowest in the world (15% across all South African based universities). In particular, their report suggests that a lack of available financing and the existence of a significant articulation gap between secondary education and higher education were the main causes for such a high dropout rate. The purpose of the study is to find out the the quality of interaction that exists between a student and the higher education institution at which they enroll. The study is guided by Tinto's approach because it divides institutional experiences by student into two distinct components: (1) an academic component comprising the academic performance of the student and their interaction with faculty or staff members

within the university, and (2) a social component comprising their extracurricular activities and peer group interactions.

In their study, Strydom, Mentz and Kuh (2010) identified many similarities between the US and South African higher education contexts. The comparison between these two contexts is meant to highlight the similarity in their challenges. Although addressing these challenges within the specific contexts of the both countries is a complicated matter, the magnitude of these challenges is exemplified in the South African context given the socio-economic, capacity and resource constraints, as well as the challenges faced by South Africa as a developing country.

Table 2-4: Challenges Facing Higher Education

United State of America	South Africa
Low pass rates.	Very low pass rates (around 15% graduate in time).
Low enrolment of minority group students.	Participation rates of previously excluded Black African students around 12%.
Lower pass rates amongst low income, minority group students.	One in three Black African students graduate in time, less than 5% of this cohort obtains a degree.
Students not adequately prepared in high school.	Students not adequately prepared in high school.
Increased demand for graduates in the knowledge economy results in a rapidly expanding student body with unprecedented levels of diversity and large numbers of first generation students.	Widening access and an increased demand for graduates in the knowledge economy lead to unprecedented levels of diversity and many first generation students.

SOURCE: Strydom et al 2010:3)

Table 2.4 above shows that the challenges faced by South Africa as a developing country are also common in other developed countries like United States of America. Therefore there is a need to investigate factors that can lead to the improvement in retention and graduation rates in South African higher education, which is the focus of

the current study. The institutional factors of academic advising, academic support, teaching approaches, student assessment techniques, learning facilities, student funding services, student accommodation, and administration services, are investigated in the current study.

2.5 SUMMARY

The aim of this chapter was to discuss an overview of the leading theories in student retention and to provide a discussion of the relationship among variables that underpin the theoretical model to improve student retention in higher education institutions. More specifically, the proposed relationship between academic advising, academic support, teaching approaches, assessment methods, learning facilities, student funding, student accommodation and administration services, were discussed. The next chapter discusses the research methodology employed to empirically investigate the hypotheses.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 INTRODUCTION

In the previous chapter, theories underpinning student retention as well as the factors affecting student retention in higher education institutions were discussed. The current chapter, discusses the research methodology to be used to investigate these factors. This discussion includes a review of the research paradigm, research approach, research design, sampling procedure, data collection instrument, data analysis used in the study and validity and reliability.

3.2 RESEARCH PARADIGM

Babbie and Mouton (2012) use the term methodological paradigm to include both actual method and techniques that social researchers use, as well as underlying principles and assumptions regarding their use. A paradigm is defined as a particular way of viewing the world, a framework of assumptions that reflect a shared set of beliefs about the world, which places strict guidelines and principles on how research should be conducted (Burns & Burns, 2008). Creswell (2007) defines a paradigm as a basic set of beliefs or assumptions that guide the research. Saunders, Lewis and Thornhill (2009:108) concur with the definitions and define a paradigm containing an important assumptions about the way in which the researcher view the world. These assumptions always guide the researcher on the research strategy and methods to be used in conducting the study.

Barker (2003: 312), cited in De Vos, Strydom, Fouche and Delport (2013), defines a paradigm as a model or pattern containing a set of legitimated assumptions and designs for collecting and interpreting data. It is also defined as the planning framework for the research process, that includes aspects such as methodology, assumptions and models (Neuman, 2006, 2011). Fellows and Liu (2013: 17) define a paradigm as a research

philosophy which includes a system by which people view events (a lens). Saunders, et al, (2009 :118) explain a research paradigm as a way of examining social phenomena from which a particular understanding of these phenomena can be gained and explanations attempted. As a philosophical compass, a paradigm helps to clarify research design, to identify and create research designs that may be outside the researcher's past experiences, and also to clarify which designs will work and which will not. In its simplest form, a paradigm can be defined as "a fundamental model or scheme that organizes our view of something" (Rubin & Babbie, 2015: 37).

Creswell and PlanoClark (2007) identify three major paradigms, namely; positivism, constructivism and pragmatism while Saunders et al. (2009) explain four types of paradigms, namely; positivism, realism, interpretivism and pragmatism. Horrits (2011) concurs with Creswell and Plano Clark (2007) and identifies three major paradigms as the interpretivist, positivist and pragmatic paradigm. Burns and Burns (2008) Grey (2009) and Maree (2014), mentioned only two paradigms for the verification of theoretical propositions namely; positivism and anti- positivism or interpretivism. The choices of methodology made are driven by certain beliefs and assumptions.

Methodological choices made in research are driven by philosophical assumptions which the research paradigms represent (Brannen, 2005). The researchers consider the role of assumptions made about the way in which the world works, what different philosophies consider to be acceptable knowledge and the role of our own values (Saunders, et al., 2009). There are many different paradigms in social science and they differ in terms of their underlying assumptions. Understanding assumptions for each paradigm is important and necessary. The basic philosophical assumptions are ontology, epistemology, axiology and methodology (Babbie and Mouton, 2012; Creswell and Plano Clark, 2007; Denzin and Lincoln, 2008; Saunders, et al., 2009). Table 3.1 below explains four research philosophies. The table shows how different assumptions/beliefs define the nature of knowledge and its purpose, and how knowledge is determined when research is guided by each paradigm.

Table 3-1: Comparison of four research philosophy

Assumptions	Positivism	Realism	Interpretivism	Pragmatism
Ontology: The researcher's view of the nature of reality or being	External, objective and independent of social actions	Is objective, exists independently of human thoughts and beliefs or knowledge of their existence (realist) but is interpreted through social conditioning (critical realist).	Socially constructed, subjective, may change, multiple.	External, multiple, view chosen to best enable answering of research question.
Epistemology: researcher's view regarding what constitutes acceptable knowledge	Only observable phenomena can provide credible data, facts. Focus on causality and law like generalization, reducing phenomena into simplest elements	Observable phenomena provide credible data, facts. Insufficient data means inaccuracies in sensations (direct realisms). Alternatively phenomena create sensations which are open to misinterpretation	Subjective meanings and social phenomena. Focus upon the details of situation, a reality behind these details, subjective meaning motivating actions.	Either both observable phenomena and subjective meanings can provide acceptable knowledge dependent upon the research question. Focuses on practical applied research,

		(critical realism). Focus on explaining within a contexts of contexts.		integrates different perspectives to help interpret the data.
Axiology: the researcher's view of the role of values in research	Research is undertaken in a value- free way. The researcher is independent of the data and maintains an objective stance.	Research is value laden, the researcher is biased by the world views, cultural experience and upbringing. These will impact on the research.	Research is value bound, the researcher is part of what is being researched. cannot be separated and so will be subjective.	Values play a large role in interpreting results, the researcher adopting both objective and subjective points of view.
Methodology: Data collection techniques most often used	Highly structured, large samples, measurement, quantitative but can use qualitative.	Methods chosen must fit the subject matter, qualitative or quantitative.	Small samples, in-depth investigation, qualitative.	Mixed or multiple method designs, qualitative and quantitative.

Source: Saunders, et al. 2009: 119

The following research paradigms as indicated from the above table will be explained.

3.2.1 Positivist paradigm

Positivism asserts that there are observable facts which can be observed and measured by the observer who remains uninfluenced by the observation and measurements (Fellows and Liu, 2013). Positivism in essence, is seen as hard, real and objective, capable of being transmitted in tangible form, which is a view which might lead to adopting an observer role and using the methods of natural science to consider the use of quantitative methods (Maree, 2013: 32). As outlined by Grey (2009), positivism argues that, reality consists of what is available to the senses, what can be seen, smelt and touched. Inquiry should be based upon scientific observation, and the natural and human science share common logical and methodological principles dealing with facts and not with values. Positivism is also considered as an epistemological position that advocates the application of the methods of the natural science to the study of social reality and beyond (Bryman, 2012: 28).

The positivist paradigm adopts an ontological position that asserts that there exists an objective reality out there in the world (a realist ontology) and posits that by using numerical analysis and facts, we can discover this reality (Neuman, 2011). Positivism is a philosophy that is concerned with uncovering objective truth and presenting it by empirical means (Henning, Van Rensburg & Smit, 2004). According to Chilisa (2012), with regards to the nature of knowledge, positivists argue that there is a single, tangible reality that is relatively constant across time and settings; and the researcher's duty is to discover this objective reality. The ontological stance of positivism in research is further extended by the fact that it assumes that knowledge is independent of the researcher's interest in it, and this reality is measurable and can be broken into variables (Mertens, 2010).

3.2.2 Research methodology adopted for the study

The Positivist paradigm is appropriate for this study as the researcher is interested in objective measurements of institutional factors on student retention in a higher

education institution in the Eastern Cape. Positivism is an approach to social research that seeks to apply the natural science model of research to investigate social phenomena and explain the social world (De Vos, et al. 2012). Positivism further recognises only non-metaphysical facts and observable phenomena and so it is closely related to rationalism, empiricism and objectivity (Fellows & Liu, 2008).

According to Bryman (2012: 29), positivism entails the four principles. Firstly, only phenomena, and hence knowledge, confirmed by the senses can genuinely be warranted as knowledge (The principle of phenomenalism). Secondly, the purpose of theory is to generate hypotheses that can be tested and that will thereby allow explanations of laws to be assessed (the principle of deductivism). Thirdly, knowledge is arrived at through gathering the facts that provide the basis for laws (the principle of inductivism). Fourthly, science must be conducted in a way that is value free (that is, objective). Lastly, there is a clear distinction between a scientific statement and normative statements, with the belief that the scientific statement is the true domain of the scientist.

Saunders, et al. (2009) summarizes the above principles by saying that, if the research reflects the philosophy of positivism, the researcher is adopting the philosophical stance of the natural scientist. The researcher prefers to work with observable social reality and the end product is the law-like generalization. To generate the research strategy to collect data, the existing theory is used to develop hypotheses. A hypothesis is described as a tentative statement about relationships between two or more variables (Struwig & Stead, 2011: 11). The current study is located within the positivism paradigm as it seeks to test the relationships between the institutional factors (Academic advising, academic support, teaching approaches, assessment methods, student funding services, student accommodation and student administration services) and student retention.

3.2.3 Justification for the use of positivist paradigm

Positivism is adopted as a suitable paradigm for this study for a number of reasons. Firstly, the emphasis in this study is on quantification of constructs. The researcher believes that the only way to measuring student retention in higher education is through quantitative measurements. Secondly, the study concerns the central role of variables in describing and analyzing student behaviour (Babbie & Mouton, 2012). The study assessed the level of student satisfaction with institutional factors as it affect student retention. Thirdly, the study used the existing theories in order to develop the hypotheses which were tested and rejected leading to the further development of theory which then may be tested by further research (Saunders, et al. 2009).

3.3 RESEARCH APPROACH

A research approach is defined as a plan or procedure for research that spans the steps from broad assumptions to detailed methods of data collection, analysis and interpretation (Creswell, 2007; 2012). A research approach is also defined as a way of collecting and analysing data, developing and modifying theory, elaborating or refocusing the research question, identifying and dealing with threats to validity and reliability during the research (Corbetta, 2003; Thomas, 2003). From the above definitions, a research approach can be viewed as a procedure that involves several decisions such as which research methods, data collection and analysis techniques to use.

There are three well known and recognized approaches to research, namely qualitative, quantitative and mixed method approach (Bryman, 2012, De Vos et al., 2011; Fellows and Liu, 2013; Neuman, 2011). These approaches differ in terms of purpose, methods of conducting enquiry, strategies for collecting and analyzing data, and criteria for judging quality (De Vos, et al. 2011). The methodology/ approach to be used for a particular research problem must always take into account the nature of the data that

will be collected in trying to solve the problem. These three approaches are represented in Table 3.2 below.

Table 3-2: Alternative Strategies of Inquiry

Quantitative	Qualitative	Mixed Method
Experimental Designs Non- Experimental designs such and surveys.	Narrative research Phenomenology Ethnographies Grounded theory studies Case study	Sequential Concurrent Transformative

Source: Creswell, 2009: 12

3.3.1 Quantitative Approach

Quantitative research is research that is systematic and objective in its use of numerical data from only a selected subgroup of a universe (or population) to generalize the findings to the universe that is being studied (Marie, 2013: 145). Creswell (2009) defines quantitative research as a means of testing objective theories by examining the relationship among variables. It involves looking at amounts or quantities of one or more variables of interest (Leedy & Ormrod, 2013). Researchers who engage in this form of inquiry have assumptions about testing theories deductively, building in protections against bias, controlling for alternative explanations, and generalizing and replicating the findings.

Struwig and Stead (2011) also identify a number of characteristics related to quantitative research. The first characteristic is that quantitative research examines variables which are based on hypotheses derived from a theoretical framework, and the variables studied must be measured. The measurement of variables/constructs is normally conducted through the use of a questionnaire.

The second characteristic is on causality. Quantitative research establishes a causal relationship, that is the cause and effect, between the variables, hence; there is a frequent use of independent and dependent variables. It is used to answer questions about relationships among measured variables with the purpose of explaining, predicting and controlling phenomena (Leedy & Ormrod, 2005: 94). The researchers using quantitative approach seek to employ or adopt methods and assumptions of the natural scientist. This approach is based, largely on positivism and neo-positivism. Positivism is a research paradigm that combines a deductive approach with precise measurement of quantitative data to help the researchers to discover and confirm laws that will permit predictions about human behavior. This means the researcher seeks to gather factual data to study the relationship between the facts/ variables and how such facts and relationships agree with theories and findings of any research executed previously (Fellows & Liu, 2008)

The third characteristics relates to generalization. The quantitative researcher wishes to generalize results beyond the confines of the research sample. Leedy and Ormrod (2005) are of the same view that the intention of quantitative research is to confirm or validate the relationship between variables and develop generalization. A great deal of attention is paid to sampling issues, particularly to the representativeness of sample, in order to establish findings that can be generalized to the wider population.

The fourth feature relates to replication. Replication provides a way of determining the extent to which findings are applicable to other contexts. A study is replicable only when the study's research process is clearly and accurately described so that other researchers can repeat the study when they wish to do so. Lastly, in quantitative research, an individual is the focus of the empirical inquiry. Survey instruments are administered to individuals and the individual's responses are required.

In addition to the above characteristics, De Vos et al. (2013: 63) further explain the some features of the quantitative approach. The structured guidelines exist for conducting research. This means variables, concepts, hypotheses and methods of

measurements are defined before the study begins and remain the same throughout. Secondly, the variables to be studied are isolated and controlled for extraneous variables, and the standard procedure to collect numerical data and use of statistical procedures to analyse and draw conclusion from the data are used.

3.3.2 Qualitative research

Creswell (2009) defines qualitative research as a means for exploring and understanding the meaning individuals or group ascribe to a social or human problem. Qualitative research, as opposed to quantitative research, involves looking at characteristics or qualities that cannot be entirely reduced to numerical values. Thus, it aims to examine the many nuances and complexities of a particular phenomenon (Leedy & Ormrod, 2013). Marie (2013) describes qualitative research as research that attempts to collect rich descriptive data in respect of a particular phenomenon or context with the intention of developing an understanding of what is being observed or studied. This means, it focuses on how individuals or group of people view and understand the world.

Unlike quantitative research, qualitative research places little importance on developing statistical information about phenomena. Qualitative research focuses on describing and understanding the phenomena within the naturally occurring context, hence; it is also called naturalistic approach (Marie, 2013). Qualitative research concerns itself with approaches such as phenomenology, ecological psychology, ethnography, symbolic interactionism and postmodernism (Strydom & Stead, 2011).

Qualitative research, according to Bryman (2012), is described as a research strategy that usually emphasizes words rather than quantification, in the collection and analysis of data. It predominantly emphasizes an inductive approach to the relationship between theory and research, in which the emphasis is placed on the generation of theories. It embodies the view of social reality as a constantly shifting emergent property of individual creation. Table 3.3 below summarizes the major differences between quantitative and qualitative research.

Table 3-3: Quantitative research Versus Qualitative research

Quantitative	Qualitative
• Researchers test hypotheses that are stated at the beginning. • Concepts are in the form of distinct variable. • Measures are systematically created before data collection and are standardized. • Data are in form of numbers from precise measurement. • Theory is largely causal and is deductive. • Procedures are standardized and replication is frequent. • Analysis proceeds by using statistics, tables or charts and discussing how, what they show relates to hypotheses.	• Researchers capture and discover meaning once they become immersed in the data. • Concepts are in the form of themes, motifs, generalisations and taxonomies. • Measures are created in an ad hoc manner and are often specific to the individual setting or researcher. • Data is in form of words and images from documents, observations and transcripts. • Theory can be causal or non-causal and often inductive. • Research procedures are particular, and replication is very rare. • Analysis proceeds by extracting themes or generalisations from evidence and organizing data to present a coherent consistent picture.

Source: Neuman (2011: 174)

3.3.3 Mixed method research

Experts in the field of mixed research have varied definitions of the concept. Mixed method research is an approach to inquiry that combines or associates both qualitative and quantitative approaches (Creswell, 2009: 4). According to Creswell and Plano (2007), some mixed methodologists consider this form of research as a separate methodology with its own philosophical assumptions and considerations for method of enquiry. Other mixed research authors consider it as relating to the practice of triangulation that enriches one particular approach rather than the consideration of a mixed method approach (De Vos et al., 2011).

Creswell and Plano (2007: 5) provide a more comprehensive definition of mixed methods research as an approach with philosophical assumptions as well as methods of inquiry. As a methodology, it involves assumptions that guide the direction of the collection and analysis of data and the mixture of qualitative and quantitative data in a single study or series of studies. The central premise of a mixed method approach is that, the use of quantitative and qualitative approaches in combination provides a better understanding of research problem than either approach alone.

3.3.4 Research approach adopted for this study

The research approach adopted for this study was the quantitative research approach. The approach emphasizes quantification in the collection and analysis of data, and that a deductive approach to the relationship between theory and research and the accent is based on the testing of theories (Bryman, 2012). The quantitative approach is linked to positivism (Babbie & Mouton, 2012). Quantitative research is a research methodology that seeks to quantify the data and typically applies some form of analysis (Malhotra, Birks & Wills, 2012). It is mainly used to draw conclusions after testing a specific hypothesis and therefore is considered as conclusive. Malhotra (2007:171) states 'quantitative research seeks to quantify the data and typically forms some sort of statistical analysis'.

The quantitative approach was selected for the number of reasons. It is an approach which applies deduction, meaning it involves the development of theory that is subjected to rigorous tests (Saunders, et al. 2009). This approach further allows the researcher to search and explain the causal relationship between variables. The nature of this study required the use of deduction to test a number of hypotheses regarding student retention rates in higher education hence; the use of independent and dependent variables. The quantitative approach gives the researcher a chance to collect data in order to test the hypothesis. According to Creswell (2009), in a quantitative approach, the problem is best addressed by understanding what factors or variables influence the outcome. For example, in response to low rate of student retention, the study sought to investigate the effect of institutional factors such as academic advising, academic support, teaching approaches, assessment methods, learning facilities, student accommodation, funding services and administration services, on student retention.

Furthermore, the quantitative study tends to have a particular pre-specified focus. When human beings are the topic of study, the focus is typically on a certain aspect of behavior which is quantified in some way (Leedy & Ormrod, 2013). The occurrence of the behaviour is regarded as determining the overall frequency. Another reason for choosing a quantitative approach is the concept of generalization. The sampling procedure is critical as it determines the extent to which the findings can be generalized (Struwig & Stead, 2011). In order to be able to generalize statistically about regularities in human social behavior, it is necessary to select samples of sufficient numerical size. Gill and Johnson (2002) as cited by Saunders, et al. (2009) state that the quantitative approach also makes use of a highly structured methodology to facilitate replication, which is important to ensure reliability. In summary, a quantitative research is regarded as a strategy that emphasises quantification in the collection and analysis of data, and that entails a deductive approach to the relationship between theory and research, in which the accent is placed on the testing of theories. Quantitative research also incorporated the practices and norms of the natural scientific model and of positivism in

particular and embodies a view of social reality as an external, objective reality (Bryman, 2012).

3.3.5 Justification for the use of quantitative approach

In this study, deduction was used to test the number of hypotheses proposed with regards to student retention in higher education. The researcher was interested in finding more about factors affecting student retention, hence; the study was descriptive in nature and aimed at describing the characteristics of an existing phenomenon. Another reason for choosing a quantitative approach was the fact that the study was explanatory. Explanatory studies are those that establish causal relationships between variables (Saunders, et al., 2009).

In addition, quantitative approach includes emphasis on the quantification of constructs and the topic concerns the central role of variables in describing and analyzing the human behaviour (Babbie & Mouton, 2012). With the objective of testing a theory rather than developing it, the researcher advances a theory, collects data to test it, and reflects on its confirmation or otherwise by the results generated (Creswell, 2009). According to Johnson, Onwuegbuzie and Turner (2007), the quantitative approach is characterised by several features. First, it is used often for deductive research when the goal of the research is to test theories or hypotheses, gather descriptive data or examine relationships among variables. Second, it is used when variables are to be measured to produce numerical data that can be analysed statistically. Third, it has potential to provide measurable evidence to help establish (probable) cause and effect, to yield efficient data collection procedures, to create the possibility of replication and generalization to a population, to facilitate the comparison of groups, and to provide insight into the breadth of experiences. Fourth, the researcher's epistemology assumes that there exists one objective reality, and that this reality can be observed and measured numerically, and that facts are independent of an individual's subjective experience and values.

3.4 RESEARCH DESIGN

Definitions of research design are rather ambiguous. A research design has been defined in different ways by different scholars and researchers demonstrating the multidimensionality of the concept. Bryman (2012:46) defines a “research design as a framework for collecting and analyzing data”. Babbie (2007: 112) offers a closely related definition of design that “a research design involves a set of decisions regarding what topic is to be studied among what population with what research methods for what purpose. Monette, Sullivan and DeJong (2008: 9) define research design as a plan outlining how observations will be made and how the researcher will carry out the project. Quantitative research designs can be classified into two main classes, namely; the experimental designs and non-experimental designs (De Vos, et al. 2011:144; Maree, 2013: 149).

3.4.1 Experimental Designs

According to Maree (2013), experimental designs have been developed to answer research questions of a cause and effect nature. This means that the two comparison groups are set up as dependent variables and independent variables. In the current study, student satisfaction is a dependent variable and the institutional factors (academic advising, academic support, teaching approaches, assessment methods, learning facilities, funding services, accommodation services and student administration) were regarded as independent variables.

Essentially, an experiment examines the effect of an independent variable on a dependent variable (Babbie, 2012). Quantitative research is based primarily on deductive forms of logic, and theories and hypotheses are tested in a cause-effect order. The goal was to develop generalizations that contribute to theory that enable the researcher to predict, explain, and understand some phenomenon. There are three characteristics that distinguish an experimental design from other designs (Maree,

2013). Firstly, manipulation can take place, meaning some participants may be exposed to special treatment. Secondly, there is some control which means some participants are used as a control by not receiving the treatment. Lastly, randomization is used to assign the participants to different groups.

Experimental designs are further classified into pre-experimental, quasi experimental and true experimental (De Vos et al, 2011). Pre-experimental designs are not characterized by random selection of participants from a population nor do they include a control group. This means the power of research to uncover the causal nature of the relationship between independent and dependent variable is greatly reduced, if not entirely eliminated (Salkind, 2006). These designs are used when resources do not permit the development of true experimental designs.

Quasi experimental designs have some, but not all, the requirements of a true experiment hence; they are at the midpoint on the experimental continuum. These design most frequently lack the random assignment of research participants to two or more groups. They usually enable the researchers to make conclusions about causal relationships with less convictions than in real experimental research. They nonetheless, allow conclusions to be drawn about relationships with much more confidence than in pre-experimental research (Welman, Kruger & Mitchell, 2005). The true experimental design has the most rigid requirement and is ablest to produce results that can be generalized to a specific population. It includes all steps in selecting and assigning participants in a random way and incorporates the control group. A true experiment comes out if there is the manipulation of one or more independent variables for the purpose of research, and if there is the random assignment of participants to comparison or control groups (Punch, 2005).

3.4.2 Non- Experimental designs

Non-Experimental designs are mainly used in descriptive studies in which the units that selected in the research are measured on all the relevant variables at a specific time

(DeVos, et al. 2011). No manipulation of variables takes place and the measurement does not include an experimental or a control group. The most widely used non-experimental design is surveys, and the purpose is to obtain quantitative information that can be used to describe or explore a particular research topic (Maree, 2013). Punch (2005a:75) as cited in DeVos, et al. (2011) states that surveys are conducted mainly to describe some sample in terms of simple proportions and percentages of people who respond in the same way to different questions.

3.4.3 Design utilized in the study

The study employed surveys because the sample was quite big consisting of 660 students. In addition to that, eight hypotheses on institutional factors were tested. Survey research involves acquiring information about one or more groups of people perhaps about their characteristics, opinions, attitudes or previous experience; by asking them questions and tabulating their answers (Leedy & Ormrod, 2013: 189). Mc Millan and Schumacher (2001: 602) as cited in Maree (2013), define survey research as “the assessment of the current status, opinion, beliefs and attitudes by questionnaires or interviews from a known population” The most important characteristics of surveys is that the sample is usually big and many variables can be measured and multiple hypotheses tested (DeVos et al. 2011; Maree, 2013).

Surveys allowed the researchers to collect quantitative data which was analyzed using descriptive and inferential statistics. An advantage of this method is that the population was represented much better than in a simple random sampling. The total population from which the sample was drawn consisted of 6600 third year students from four different sites of the selected university, namely; Campus A, B, C, and D.

According to Babbie and Mouton (2011) and Maree (2014), there are two popular ways of allocating sample sizes to the strata, namely; equal allocation and proportional

allocation. When equal allocation is used, the same number of elements is drawn from the stratum (equal to n/h). When proportional allocation is used, the number allocated to each stratum is proportional to its population size. In this study, a proportional allocation was used because the number of students in each faculty was not the same. The list of students was obtained from the Management Information System Department for random sampling.

3.4.4 Justification for using survey research design

The survey research is one of the most popular designs in social science. In the current study, the survey research was selected for a number of reasons. A survey is quite simple in design and the researcher poses a series of questions to a willing participant, summarizes their responses with percentages, frequency counts or more statistical indexes, and then draws inferences about a particular population from the responses of the sample (De Vos, et al. 2011). It is used with more or less sophistication in many areas of human activity (Leedy & Ormrod, 2013). The survey also gives the researcher an opportunity to select a sample of respondents and administer a standardized questionnaire to them. In the current study, structured questionnaires were administered to the selected students, and analyzed to determine whether a significant relationship existed between the selected institutional factors and student retention.

Survey research is the best method that one can use in collecting data for describing a population too large to observe directly. Surveys are also appropriate for measuring attitudes and orientations in a large population (Babbie & Mouton, 2012).

3.5 POPULATION AND SAMPLING

When the survey questionnaire is ready, the data need to be collected from the respondents. The researcher identified third year students at the selected comprehensive institution as the target group from whom information was collected.

3.5.1 Population

Population is any group of individuals, events or objects with one or more characteristics in common that are of interest to the researcher (Babbie, 2009; Neuman, 2011; Yount, 2006). A more detailed definition is given by Wandera (2011) that a population is well defined or set of people, services, elements, and events, group of things or households that are being investigated in order to gather information required. The population of this research consisted of 6600 third year students from different faculties and different sites of the university.

3.5.2 Sampling

Sampling can be described as a smaller set of cases a researcher selects from a larger pool and generalize to the population (Maree, 2013: 172; Neuman, 2011:240). Sampling is divided into probability and non-probability sampling. Under probability sampling, there are many types of sampling designs, which include simple random sampling, systematic sampling, stratified sampling, cluster sampling and random digit dialling sampling (Neuman, 2011, 241). Under non-probability sampling, there are also many sampling designs, which include haphazard or convenience sampling, quota sampling, purposive sampling, snowball sampling, deviant case sampling, sequential sampling, and theoretical sampling (Neuman, 2011:242). The key sampling method used in survey research is probability sampling (Babbie & Mouton, 2012).

3.5.3 Sampling techniques utilized in the study

A sample represents the collection of elements drawn from the population under study. The total population for the study was 6600 students from all campuses. Table 3.4 below represent the total population from which the sample was drawn and consisted of third year students from four different campuses of the selected university namely; Campus A, B, C, and D. Campus A consisted of two faculties i.e Business Sciences and Science and Technology; Campus B consisted of three faculties i.e Education, Engineering and Technology and Management Sciences; Campus C consisted of five faculties i.e Commerce and administration, Education Sciences, Health Sciences,

Humanities, Sociology and Law and Natural Sciences; and Campus D consisted of one faculty, Education Finance and Management.

Table 3-4: Total Number of Students at Level 3

Campus Name	Faculty	Headcount Level 3	M	F	W	C	I	B	S.A	Non-S.A
Campus A	FBS	1062	378	684	1	3	0	1058	1058	4
	FSET	633	330	303	4	2	0	627	629	4
TOTAL		1695	708	987	5	5	0	1685	1687	8
Campus B	Education	281	116	165	0	0	0	281	281	0
	Eng.Sc.&Tech.	503	270	230	0	0	0	503	502	1
	Man Science	628	190	438	0	0	0	628	627	1
TOTAL		1412	576	833	0	0	0	1412	1410	2
Campus C	Com&Admin	937	399	538	0	1	0	936	931	6
	Edu.S	1278	508	770	0	0	0	1278	1278	0
	Health S	226	88	138	2	1	7	216	224	2
	Hum.Soc & Law	562	226	336	0	2	0	560	558	4
	Natural.S	275	143	132	0	0	1	274	270	5
TOTAL		3278	1364	1914	2	4	7	3264	3261	17
Campus D	Edu, Fin & Man	215	69	146	0	0	0	215	215	
G.TOTAL		6 600	2717	3883	7	9	8	6576	6573	27

Table 3.4 shows the total population according to campus, faculty and gender, where a ten percent sample was drawn from each strata. When stratified sampling is used, firstly the population is divided into sub population called strata, thereafter a random sampling was drawn in each strata (Neuman, 2011). An advantage of this method is that the population is represented much better than in a simple random sampling. Each stratum consists of a certain population size from different departments. This is shown in Table 3.5 below.

Table 3-5: Description of population and stratified sample according to Campus, Faculty and Gender

Campus	Faculty	Population Female		Sample		Total in sample
		Male	Female	Male	Female	
Campus A	Business sciences	378	684	38	68	106
	Science and Technology	330	303	33	30	63
Campus B	Education	116	165	12	16	28
	Engineering Science and Technology	270	230	27	23	50
	Management Sciences	190	438	19	44	63
Campus C	Com & Admin	399	538	40	54	94
	Edu. Science	508	770	51	77	128
	Health & Science	88	138	9	14	23
	Humanities Soc Law	226	336	23	34	57
	Natural Science	143	132	14	13	27
Campus D	Education, Finance & Management	69	146	6	15	21
TOTAL		2717	3883	273	389	660

Stratified sampling ensures that an appropriate number of elements are drawn from homogeneous subject of that population (Babbie & Mouton, 2012). The total of 660 students formed the sample that participated in the study as given in Table 3.5. The sample was large enough to represent the population..

3.6 DATA COLLECTION INSTRUMENT

Collection of data is a communication process which involves the transfer of data from the respondent to the researcher, and it may involve the provider in collection, assembling and analysis of the data (Fellows & Liu, 2008). The main aim of collecting data is to maximize the amount and accuracy of transfer of meaning from the provider to the researcher. The degree of success is determined by the method selected for data collection and the expertise with which the method is employed (Fellows & Liu, 2008).

This study used a structured questionnaire, with Likert scale type of question items, to collect data from the respondents.

3.6.1 Structured Questionnaire

The researcher has two options in asking questions. The researcher may ask open-ended questions (unstructured questions) or closed-ended questions (Structured questions) (Babbie & Mouton, 2012). In open-ended questions, the respondent is asked to provide his or her own answer to the question. In the closed-ended questions, the respondent is asked to select an answer from the list of answers provided by the researcher (Babbie & Mouton, 2012; Maree, 2013). The current study made use of the structured questionnaire.

A questionnaire is a technique of collecting data in which each person is asked to respond to the same set of questions in a predetermined order (Saunders, et al., 2009). A structured questionnaire is defined as a structured technique for data collection that includes a series of questions, written or verbal, that a respondent answers (Neuman, 2011; Phellas, Block & Seale, 2011; Yount, 2006).

3.6.2 Justification for the use of structured questionnaire in this study

There are major advantages in the use of a structured questionnaire (Babbie & Mouton, 2012, Fellowa & Liu, 2008). The first advantage relates to the greater uniformity of responses that allows easy processing for computer analysis. The second advantage is that questionnaires may be administered by post or mail/ web to respondents, to groups by a researcher or a particular individual such as by a lecturer to students making it easier for the researcher to administer and collect the questionnaire. The third advantage is that questions are easy for the respondent to answer as they are short and clear.

Neuman (2011: 325) highlights a number of advantages of using closed (structured) questionnaires. Questionnaires are easier and quicker for respondents to answer. The

most important guideline for constructing a questionnaire is that questionnaire should be as brief as possible and solicit only information that is essential to the researcher (Leedy & Ormrod, 2013). In large scale surveys, questionnaires are faster and easier for both the researcher and the respondent. Secondly, the answers of different respondents are easier to compare. Because a closed questionnaire provides a set of responses from which the respondents has to choose one or more responses, it is easy to compare the answers. Thirdly, answers are easy to code and statistically analyze. Fourthly, there are few irrelevant and confused answers and replication is easier. The researcher is expected to provide straightforward and specific instructions and communicate exactly what he/ she wants to know.

In addition to the above advantages, questionnaires can be easily administered to a large group of respondents, hence; their selection for the current study. Questionnaires further allow the respondent limited options in terms of what the answers will be making it easier for the researcher to analyze data. Lastly, using the questionnaire gives the researcher a high level of confidence that information needed to draw decisions and recommendations will be based on on the result of the survey.

3.6.3 Administering and Collection of questionnaire

Once the questionnaire is designed, pilot tested and amended, and the sample selected, the questionnaire can be administered to collect data (Saunders, et al. 2009). In administering the questionnaire, the researcher is expected to abide by the university's code of ethics. The researcher obtained permission from the selected university to conduct the research. In order to maximize the response rate, the researcher delivered and collected the questionnaire on the same day.

3.6.4 Alignment of research items

Table 3.6 shows the alignment of research hypotheses, unit of analysis, research instruments, and nature of data.

Table 3-6: Alignment of research questions, objectives, unit of analysis, instruments and nature of data

Research Hypotheses	Unit of analysis	Research instrument	Nature of Data
There is no significant relationship between students' biographical variables and the way they respond to the influence of academic advising, academic support, learning facilities, teaching approaches, student funding and student accommodation on student retention.	Students	Questionnaire	Quantitative Data
There is no significant relationship between academic advising and student retention.	Students	Questionnaire	Quantitative Data
There is no significant relationship between academic support and student retention.	Students	Questionnaire	Quantitative Data
There is no significant relationship between teaching approaches and student retention.	Students	Questionnaire	Quantitative data
There is no significant relationship between student assessment techniques and student retention.	Students	Questionnaire	Quantitative data
There is no significant relationship between learning facilities and student retention.	Students	Questionnaire	Quantitative data
There is no significant relationship between student funding service and student retention.	Students	Questionnaire	Quantitative data
There is no significant relationship between student accommodation and student retention.	Students	Questionnaire	Quantitative data
There is no significant relationship between student administration services and student retention.	Students	Questionnaire	Quantitative Data

3.7 RELIABILITY AND VALIDITY

Reliability and validity are the two most prominent criteria for the evaluation of social research (Bryman, 2012). Reliability is concerned with the question of whether the results of a study are repeatable, and validity is concerned with the integrity of the conclusions that are generated from the study.

3.7.1 Reliability

Reliability is the extent to which a measuring instrument is repeatable and consistent (Maree, 2013; Neuman, 2011; Struwig & Stead, 2011). Reliability simply means dependability or consistency. Reliability is a matter of whether a particular technique, if applied repeatedly to the same object, would yield the same result each time. Social researchers have developed a number of techniques for dealing with the reliability problems which include the test-retest method, equivalent form, split-half and internal reliability (Babbie & Mouton 2012; Burns & Grove, 2007; Maree, 2013; Struwig & Stead, 2011).

3.7.1.1 Test- retest reliability

Test-retest reliability determines the extent to which a test score is reliable over a period of time (Struwig & Stead, 2011: 131). The test is administered twice to the same individuals over time. If the scores from the two test sessions are similar, the scores are said to be reliable or stable. The first set of scores is then compared with the second set by calculating a correlation coefficient. Such a coefficient will take on a value close to zero if the instrument has a low reliability, and if the instrument had a high reliability it will take a value close to one (Maree, 2013). Table 3.7 below shows that all items were close to the value of one which meant the instrument had high reliability.

3.7.1.2 Equivalent form reliability

Equivalent reliability is obtained by administering the instrument and then, on a second occasion, administer an equivalent instrument measuring the same construct to the same subject (Maree, 2013: 215). Because a different instrument is used on the

second occasion, the probability of memory effect problem is eliminated. Equivalent reliability measures the extent to which test results are consistent when measurements are taken by different people using the same instrument(s) or method(s). There are a number of statistics which can be used to determine inter-rater reliability. Different statistics appropriate for different types of measurements include joint-probability of agreement, Cohen's kappa and the related Fleiss' kappa inter-rater correlation, concordance correlation coefficient, and intra-class correlation (Gwet, 2008, 2012; Krippendorff, 2013; Shoukri, 2010).

3.7.1.3 Spit-half reliability

In spit-half reliability, the items that make up the instrument are divided into two, forming the separate instruments (Maree, 2013). Three methods are used to divide the items; the even numbered items and the odd numbered items, or the items are randomly assigned to two instruments, or the first half of the items form the one instrument and the other half form the other instrument. The scores on two separate half instruments are compared by means of correlation coefficient.

3.7.1.4 Internal reliability

When a number of items are formulated to measure a certain construct, there should be a high degree of similarity among them since they are supposed to measure one common construct (Maree, 2013: 216). A measure of the degree of similarity is an indication of the internal consistency/ reliability of the instrument. Struwig and Stead (2011) defines internal reliability as an index that calculates the extent to which the test items all reflect the same attributes. The coefficient that is used to measure the internal reliability of an instrument is called a Cronbach's Alpha and is based on inter-item correlations (Maree, 2013).

Cronbach's alpha can alternatively be interpreted as the correlation of the observed scale with all possible other scales measuring the same thing using the same number of items. As a measure of reliability, alpha should be at least 0.7 to retain an item on an

adequate scale though other researchers require a correlation coefficient cut off of 0.8 for a *good* scale. In the current study, Cronbach alpha ranged from 0,750 to 0.923 which shows that the questionnaire instrument developed to measure student retention in higher education institutions was considered reliable as shown in Table 3.7 below.

Table 3-7: Cronbach alpha calculations

Variables	Cronbach's Alpha	Number of Items
Academic Advising and student retention	0.910	10
Academic Support and student retention	0,842	10
Teaching Approaches and student retention	0.750	10
Student Assessment and student retention	0.857	11
Learning facilities and student retention	0.823	10
Student funding and Student retention	0.852	10
Student accommodation and student retention	0.871	10
Student administration services and student retention	0.923	10
TOTAL	6.828	81

Table 3.7 above indicates that the Cronbach alpha ranged from 0.750 to 0.923 which showed that the questionnaire instrument developed to assess factors affecting student retention in higher education institutions was reliable.

3.7.1.5 Measures to ensure reliability

The study achieved internal reliability as had a high degree of generalizability across the items within the measurement. The current study used a Cronbach's alpha coefficient as a major of internal reliability of an instrument. Cronbach's alpha coefficient and is based on inter-items correlations (Maree, 2014). Maree (2014) provided guidelines for interpretation of a Cronbach's alpha coefficient and these are generally accepted by researchers. Pilot study responses were used to measure the internal consistency based on number of items per theme as illustrated in Table 3.7 above A scale that renders a reliability of above 0.70 is considered a low reliable instrument, a scale that

renders a reliability of 0.80 is considered a moderate reliability instrument, and a scale that renders reliability of 0.90 is considered a high reliable instrument.

3.7.2 Validity

Validity of an instrument refers to the extent to which it measures what it is supposed to measure (Maree, 2013). Babbie and Mouton (2012) define validity as the extent to which an empirical measure adequately reflects the real meaning of the concept under construction. Research is concerned with investigating a hypothesised causal relationship between an independent variable and a dependent variable. If such a relationship is found, inferences are drawn about the population and perhaps, a variety of circumstances in which a relationship may apply beyond those of a particular study carried out (Fellows & Liu, 2008). The current study investigated institutional factors (Academic advising, academic support, teaching methods, assessment techniques, learning facilities, student accommodation, student funding services and student administration services) as independent variables and student retention as a dependent variable.

The researcher used the questionnaire as a measuring instrument. It is important to present some evidence from the literature indicating that the test scores are valid for the sample being tested. Fellows and Liu (2008), Maree (2013), Struwig and Stead (2011) discuss four types of validity, namely; face validity, content validity, construct validity and criterion validity.

3.7.2.1 Face Validity

“Face validity refers to the extent to which an instrument looks valid” (Maree, 2013: 217). Because this type of validity cannot be quantified, the measuring instrument was referred to other experts in the field for scrutiny and to ensure high degree of validity.

3.7.2.2 Content Validity

Content validity refers to the extent to which the items reflect the theoretical content domain of the construct being measured (Struwig & Stead, 2011). The current study was guided by Tinto's theory, and Pascarella and Spady's theory, in coming up with the factors affecting student retention in a higher education institution. To ensure content validity, questions in the questionnaire were drawn from all the sub-themes of the research area thereby guaranteeing coverage of the whole research area. The questionnaire was also sent to experts in other universities to examine the content of the questionnaire and its coverage of the whole research area. Their comments were incorporated into the final research instrument to ensure that the desired content validity was achieved.

3.7.2.3 Construct validity

Construct validity refers to the degree to which a test measures the theoretical construct or abstract variable it was intended to measure (Struwig & Stead, 2011). A construct is seen as a variable that is not observed directly. This type of validity is needed for standardization and has to do with how well the construct(s) covered by the instrument was measured by different groups of related items.

3.7.2.4 Criterion Validity

Criterion validity uses some standard or criterion to measure a construct accurately (Neuman, 2011). To be able to measure the degree of criterion validity of an instrument, scores of an existing instrument known to measure the same construct should be available for the sample (Maree, 2013).

3.7.2.5 Measures to ensure Validity

The researcher ensured validity of results by measuring the face, content and external validity of results. The face validity was ensured by giving the measuring instrument to experts in the field of student retention in higher education institution to check the suitability of the structured questionnaire in terms of guidelines given by Struweg and Stead (2011) and Van Zyl (2012). First, the questionnaire should contain precise and

clear instructions on how to answer questions. Based on comments from the researcher's supervisor who scrutinized the instrument, changes were made to questions which were perceived to be unclear. Second, questionnaires are to be divided into logical sections by subjects, as was case with the present study where the instrument was divided into two sections.

With regards to external validity, the researcher ensured validity of results in a number of ways. First, random sampling within each stratum was used to select respondents for the study. Second, a large sample of 660 third year students were selected to ensure generalizability of the questionnaire findings.

With regards to content validity, the researcher used two strategies. First, questions in the questionnaire were drawn from all the sub-themes of the research area to ensure that the whole research area was covered. Second, opinions were sought from experts from the other institutions of higher learning on whether the content of the questionnaire adequately covered the research questions and the whole research area. Comments from these experts on the data collection instrument were incorporated into the final instrument to ensure the desired content validity was achieved.

3.8 DATA ANALYSIS

The main purpose for analyzing data was to ensure adequacy and completeness in the presentation and analysis of research findings. According to Blaikie (2000), as cited in De Vos, et al. (2011), quantitative methods of analysis fall into four main categories, namely; description, association, causation and inference.

3.8.1 Descriptive methods

Descriptive methods were used to report the distribution of a sample or population across a wide range of variables (De Vos, et, al. 2011). The main aim was to produce the scope of the characteristics of such distribution through frequencies, measures of central tendency, and measures of dispersion

Maree (2013: 185) and Neuman (2011: 389) describe the three well known measures of central tendency; the mode, median and mean. Mode is the value that occurs most frequently; median is the middle value of distribution, and the mean is the most commonly used measure of central tendency and is calculated as the arithmetic average of all the data values. It is calculated thus:

$$\bar{X} = \frac{\text{Total of all the values}}{\text{The number of values}}$$

Measures of dispersion or variation indicate the degree to which the scores are spread out (Struwig & Staed, 2011). Measures of dispersion include the range, standard deviation and variance (De Vos, et, al. 2011; Maree 2013, Neuman, 2011, Struwig & Stead, 2011: 158). Range of the distribution is the difference between the highest and the lowest value. Standard deviation measures the deviation of each score from the mean and then averages the deviation. The variance is the square of the standard deviation. With the standard deviation, the researcher is able to compare two or more groups of students (Neuman, 2011)

Descriptive statistics is used in the current study because it consists of procedures that describe numerical data by assisting in organizing, summarizing and interpreting sample data.

3.8.2 Association and Causation Method

Techniques of association are used to establish whether positions on one variable are likely to be consistently associated with positions on another variable through, depending on the level of measurement and the number of variables analysed, either correlation, analysis of variance, or regression. The search for causation involves the use of factor analysis, path analysis or regression; in an attempt to determine the relationship between the variables (De Vos, et al. 2011). Regression analysis was used in the study for the purpose of determining the relationship among the variables.

3.8.3 Inferential method

Methods of inference are used to make estimates of population characteristics from the sample's characteristics and to establish whether relationships within the sample can be expected to assist in predicting relationship in the population from which the sample was drawn (De Vos, et al. 2011). The major function of inferential statistics is to test the hypotheses (Leedy & Ormrod, 2013). The inferential statistics assist in generalizing findings from the sample to a larger population. In order to test the hypotheses, regression analysis with SPSS software was used in the current study.

3.8.3.1 T-Test

The t-test for independent means is a commonly used inferential test of the significance of the difference between two means based on two independent unrelated groups (Van Zyl, 2014). The study consisted of two groups namely; males and females. The t-test compared the difference in the means of the two groups using measures of the spread of scores.

3.8.3.2 Regression analysis

Regression analysis is useful in situations where there is an interest in examining the relationship between variables (Maree, 2013). The technique is used to determine the extent to which the independent variables predict a dependent variable (Struwig & Stead, 2011). Regression analysis require one quantitative dependent variable and one or more independent variables (Maree, 2013). The study consisted of one dependent variable called student retention, and eight independent variables namely; academic advising, academic support, teaching methods, assessment techniques, learning facilities, funding services, student accommodation and administration services.

The hypotheses that are tested by regression analysis are as follows:

H0 : $B = 0$

H1: $B \neq 0$

If the regression coefficient is negative, then the influence is opposite. A low p value (>0.05) indicates rejection of the null hypothesis and high p value (<0.05) indicates acceptance of null hypotheses.

3.9 THE PILOT STUDY

Before using the questionnaire to collect data, it should be pilot tested. Pilot study is defined by Barker (2003: 327) in DeVos, et al. (2012), as a procedure for testing and validating an instrument by administering it to a small group of participants from the intended test participants. The purpose of the pilot study is to refine the questionnaire so that respondents will have no problems in answering the questions and also no problems in recording the data.

It is impossible to predict how questionnaire items will be interpreted by respondents unless the researcher tries out the questionnaire and analyzes the responses of a small sample drawn from the same population that is sampled in the main study. The results are then used to refine the questionnaire and locate potential problems in interpretation or analysis of the results. The researcher conducted a pilot study on Campus A which is one of the sites from which the sample was selected. The third year diploma students from department of Accounting and Management and Governance completed the questionnaire with the support and assistance of the researcher. The researcher was therefore, able to determine how long it would take participants to complete the questionnaire. No unclear and ambiguous questions were picked up. The students that participated in the pilot took approximately fifteen minutes to complete the questionnaire.

3.10 ETHICAL ISSUES

The purpose of research ethics is to protect the welfare of the respondents, and it extends into areas such as misconduct and plagiarism (Terre Blanche, Durrheim & Painter, 2011). The ethical issues that are considered most in social research include research permission, informed consent, anonymity and confidentiality and voluntary participation and withdrawal.

3.10.1 Research Permission

The researcher applied for permission to conduct research from the selected university. Letters for permission to conduct research were directed to Research Department, Student Affairs and Head of Departments from Campus A, B, C and D. The researcher also got an ethical clearance from the Ethics Committee of the University of Fort Hare before conducting the empirical survey. Ethical clearance certificate is attached as annexure 2

3.10.2 Informed consent and voluntary participation

The researcher also identified participants and sought their consent to be participants in the proposed research. Participants were not forced to take part in the study without their consent. The researcher provided potential participants with clear, detailed and factual information about the study, its method, its risks and benefits, along with assurance of voluntary participation, and freedom to refuse to participate or withdraw from participating without penalties.

3.10.3 Anonymity and Confidentiality

Respondents were assured of anonymity during the research process and that their identity would not be revealed at any costs. The researcher ensured that the information respondents gave was kept confidential. The respondents were considered anonymous and the researcher did not identify a given response with a given individual.

3.11 SUMMARY

The purpose of chapter three was to explain and justify the methodology used in the study. Chapter three showed that this study was guided by the positivist paradigm, justified as the most appropriate approach for the current study. A structured questionnaire was used as the data collection instrument in this study. Data collected would be analyzed using a quantitative techniques namely; descriptive and inferential methods. Issues of reliability and validity, pilot study and ethical issues were also discussed in this chapter. Chapter four presents, analyses and interpretes the data.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 INTRODUCTION

This chapter, guided by the hypothesis outlined in chapter one of the study, and following procedures detailed in chapter three on methodology, presents and analyzes data from the questionnaire from four campuses of the selected university. The purpose of this study was to assess student satisfaction on institutional factors influencing student retention in one selected comprehensive university in the Eastern Cape Province. For research purposes, and to ensure confidentiality, the campuses for the selected university were coded as Campus A, B, C and D. The focus of this chapter is the presentation and analysis of data that was collected using questionnaires in the form of closed questions, which were personally administered to students around four campuses.

A total of 900 questionnaires were personally distributed to the university students in the four campuses. Out of 900 questionnaires distributed, 650 were returned giving a response rate of 72 %. The analysis here presented is based on the 650 completed questionnaires

Millar and Dillman (2011) assert that, depending on how rigorous and long the surveys are, the acceptable response rate ranges from as low as 10% to as high as 65%. Watt, Simpson, McKillop and Nunn (2002) peg the acceptable return rate for paper surveys at 33.3%. Considering the nature of the present study, a response rate of 72% was considered very high and did not compromise the study in terms of validity of results.

4.2 ANALYSIS OF DEMOGRAPHIC DATA OF RESPONDENTS

The demographic details explored in this study were gender, age, academic classification, year level, campus, faculty, home language, year level, campus, faculty, home language, residential status and source of funding. All the biographical data of students is shown on Table 4.1

Table 4-1: Demographic Variables

	Biographical Variables	Frequency	Responses Percentage
1	Gender		
	Male	257	39.5
	Female	393	60.5
2	Age		
	18 – 20	85	13.2
	20 – 25	419	64.5
	25 – 30	109	16.5
	30 – 35	20	3.1
	Older than 35	16	2.5
3	Academic Qualification		
	Full Time	644	99.1
	Part Time	6	0.9
4	Campus		
	Buffalo City	167	25.7
	Butterworth	125	19.2
	Nelson Mandela Drive	332	51.1
	Queenstown	26	4
5	Faculty		
	Faculty of Business Sciences	107	16.5
	Faculty of Science and Technology	62	9.5
	Education	27	4.2
	Engineering Science and Technology	34	5.2
	Management Sciences	66	10.2
	Commerce and administration	94	14.5
	Education Science	129	19.8
	Health and Science	24	3.7
	Humanities, Sociology and Law	54	8.3
	Natural Science	27	4.2

	Education, Finance and Administration	26	4.0
6	Home Language		
	IsiZulu	75	11.5
	IsiXhosa	545	83.3
	English	15	2.3
	Afrikaans	5	0.8
	Other	10	1.5
7	Residential Status		
	On Campus	323	49.7
	Off Campus	326	50.2
8	Source of Funding		
	Personal Loan	19	2.9
	Scholarship	81	12.8
	NSFAS	472	72.6
	Self-Financed	21	3.2
	Parent/relative	42	6.5
	Other	15	2.3

Table 4.1 reveals that 650 students participated in this study, of whom 60% were female and 40% male students. The table also shows that the majority of the students were between 21 and 25years (65%); 17% of them were between 26 and 30years; 13% were between 18 and 20 years; 3% were between 31 and 35 years while 3% were above 36years of age. The majority of students (99.1%) were on full time programme while only 1% was on part time programme. Also, it is shown on table that largest proportion (51%) of the students were in Nelson Mandela Drive Campus; 26% of them were in Buffalo City Campus; 19% were in Butterworth while only 4% were in Queen's Town Campus.

The table also reveals that the majority of the students (83%) spoke IsiXhosa as their home language; 12% spoke IsiZulu; 2% spoke English; 1% spoke Afrikaans and 2% spoke other languages as their home language. The table also shows that 50% of the students are accommodated on campus and 50% were accommodated off campus.

Only 1 person did not indicate where he/she was accommodated. Lastly, the table reveals that the majority of students (73%) were funded by NSFAS, 13% were on scholarship; 7% were funded by parents/relatives; 3% were self-financed; 2% were on personal loan and 2% had other source of funding.

4.3 MULTIPLE REGRESSION ANALYSIS

Multiple regression, as defined by Fellows and Liu (2008) and Struwig and Stead (2011), includes a set of statistical techniques that examine the relationship between multiple independent variables and one dependent variable. Multiple regression analysis expressed the relationship between student satisfaction and various institutional factors affecting student retention. The independent variables were academic advising, academic support, teaching approaches, assessment techniques, learning facilities, student funding services, student accommodation and student administrative service aspects, academic aspects, reputation, access and program issues. The dependent variable in this study was student satisfaction. The purpose of using multiple regression was to identify those variables that were likely to impact on student satisfaction.

4.3.1 Research Question One

What is the composite contribution of all the institutional factors on student satisfaction?

The research question intended to find out whether students' experiences and satisfaction with selected institutional factors determined their decision to stay in the university. The study sought to uncover the extent to which all institutional factors impacted on student satisfaction. It stands to reason that if students report high levels of satisfaction with their institutional factors, they will be more successful as students. There are many aspects that colleges and universities can take into account when devising ways to ensure student satisfaction. The current study focused on only eight institutional factors and the objective was to assess the overall satisfaction students have with the university.

It was noted during the analysis that the data of two participants was incomplete and these were removed before running the inferential statistics. So the total cases used for the regression analysis was 648.

Table 4-2: Summary of Multiple Regression Showing Composite Contribution on Students' Satisfaction

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	7325.001	8	915.625	92.872	.000 ^b
	Residual	6299.694	639	9.859		
	Total	734333.179	647			
R = 0.796 R ² = 0.634 Adjusted R ² = 0.631						
a. Dependent Variable: Students' Satisfaction						
b. Predictors: (Constant), students admin services, Academic Advising, Teaching Approaches, Students' Assessment, learning facilities, Academic support, Students' funding, Students' accommodation						

Table 4.2 reveals that there is a significant relationship between all the institutional factors and the students' satisfaction ($R = 0.80$). This relationship means that the institutional factors accounted for 63.1% of the total variance in students' satisfaction (Adjusted $R^2 = 0.631$). This joint composite contribution was shown to be significant ($F_{(8, 639)} = 92.87$; $p < 0.05$).

4.3.2 4.3.2 Research Question Two

Which of the institutional factors has a significant relative contribution on student satisfaction?

The research question aimed to determine which factors contributed more significantly in predicting student satisfaction. Each independent institutional factor and its

percentage contribution on student satisfaction, was analyzed using a multiple regression as shown in Table 4.3.

Table 4-3: Summary of Multiple Regression Showing Relative Contributions of the Institutional Factors on Students' Satisfaction

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Rank
		B	Std. Error	Beta			
1	(Constant)	-5.073	.757		-6.698	.000	
	Academic Advising	.914	.021	.199	43.907	.000	2 nd
	Academic support	.812	.031	.147	26.277	.000	5 th
	Teaching Approaches	.769	.031	.121	24.446	.000	7 th
	Students' Assessment	.527	.029	.097	18.024	.000	8 th
	learning facilities	1.013	.026	.232	38.431	.000	1 st
	Students' funding	.582	.026	.135	22.075	.000	6 th
	Students' accommodation	.773	.027	.176	28.574	.000	3 rd
	students admin services	.770	.025	.174	31.209	.000	4 th
a. Dependent Variable: Students' Satisfaction							

Table 4.3 reveals the contributions of individual institutional factors to students' satisfaction. It is shown statistically that learning facilities contributed significantly most to students' satisfaction ($\beta = 0.23$; $t = 38.43$; $p < 0.05$), followed by academic advising ($\beta = 0.20$; $t = 43.91$; $p < 0.05$), then students' accommodation ($\beta = 0.18$; $t = 28.57$; $p < 0.05$), and then students' administrative services ($\beta = 0.17$; $t = 31.21$; $p < 0.05$) then academic support ($\beta = 0.15$; $t = 26.28$; $p < 0.05$), then students' funding ($\beta = 0.14$; $t = 22.08$; $p < 0.05$), then teaching approach ($\beta = 0.12$; $t = 24.45$; $p < 0.05$), and the factor that contributed significantly least was students' assessment ($\beta = 0.10$; $t = 18.02$; $p < 0.05$).

The results reveal that the eight selected institutional factors contributed significantly to student satisfaction in higher education institutions.

4.4 TESTING THE NULL HYPOTHESIS

In order to make the hypotheses testing easier, the correlation matrix table is first presented and thereafter, correlation tables were created for each hypothesis

Table 4-4: Correlation Matrix on the relationship among all the variables

	A	B	C	D	E	F	G	H	I
A	1.00								
B	.685	1.00							
C	.775	.537	1.00						
D	.680	.430	.597	1.00					
E	.733	.433	.649	.590	1.00				
F	.848	.464	.555	.493	.579	1.00			
G	.799	.407	.515	.405	.511	.707	1.00		
H	.822	.448	.508	.445	.497	.710	.727	1.00	
I	.796	.409	.561	.468	.529	.609	.671	.672	1.00

Where:

A = students' satisfaction; **B** = Academic Advising; **C** = Academic support; **D** = Teaching Approach; **E** = Students' assessment; **F** = Learning Facilities; **G** = students Funding; **H** = Students' accommodation; **I** = Students' administrative services.

4.4.1 Academic Advising and student satisfaction

The researcher's intention was to assess the relationship between the students' perception of academic advising and their satisfaction. The study also sought to determine to what extent the students' perception of academic advising impacted their decision to stay within the university. For the purpose of determining the relationship of the observed variables, the study used a Pearson Product-Moment correlation analysis to find out the relationship between a predictor variable of academic advising and the target variable of student satisfaction. The results are shown in Table 4.5 below.

Table 4-5: Summary of Pearson Product-Moment Correlation Showing Relationship between Academic Advising and Students' Satisfaction

Variables	N	Mean	Std. D	R	Sig.	Remark
Academic Advising	648	26.637	7.333			
				.685	.000	Significant
Students' Satisfaction	648	167.849	33.689			

Table 4.5 shows that there was a significant positive relationship between academic advising and students' satisfaction ($r = 0.69$; $p < 0.05$). Therefore, hypothesis 1; that there is no relationship between student satisfaction and academic advising is rejected and not supported. The positive relationship implied that increase in academic advising brought about increase in students' satisfaction and vice-versa.

The researcher further intends to find out the influence of demographic variables of gender, campus, residential status source of funding on academic advising. The t –test was used to establish the differences as presented from Table 4.6 to 4.9 below. Table 4.6 shows the impact of gender on satisfaction with academic advising.

Table 4-6: Difference between Male and Female Students Satisfaction with Academic advising

	Gender	N	Mean	Std. Deviation	T	Df	Sig.	Remark
Satisfaction with Academic Advising	Male	257	26.4981	7.09760	-.412	648	.680	NS
	Female	393	26.7405	7.47471				

Table 4.6 shows that there was no significant difference between male and female students in their level of satisfaction with academic advising ($t = -.41$; $df = 648$; $p > 0.05$). This implies that gender does not influence students' satisfaction significantly.

Table 4.7 shows the influence of campus on students' level of satisfaction with academic advising.

Table 4-7: Influence of Campus on Areas of Students' Satisfaction with academic advising

		N	Mean	Std. D	F	Df	Sig	Remark
Satisfaction with Academic Advising	Buffalo city	167	26.3952	8.27098	2.247	3, 646	.082	NS
	Butterworth	125	25.4160	6.22065				
	N.M.D.	332	27.0813	7.23845				
	Queestown	26	28.5769	6.16554				
	Total	650	26.6446	7.32336				

Table 4.7 shows that there was no significant difference among the four campuses in terms of students' level of satisfaction with academic advising ($F_{(3, 646)} = 2.25$; $p > 0.05$). This implies that campus does not influence student's level of satisfaction with academic advising significantly.

A t-test was undertaken to see the influence of student's residential status on academic advising. The results are shown in Table 4.8 below.

Table 4-8: Influence Residential Status on Students Areas of Satisfaction

	Res Status	N	Mean	Std. Deviation	T	df	Sig.	Remark
Satisfaction with Academic Advising	on campus	323	27.0619	7.43643	1.463	647	.144	NS
	off campus	326	26.2209	7.20557				

Table 4.8 shows that residential status had no significant influence on satisfaction with academic advising ($t = 1.46$; $df = 647$; $p > 0.05$). This implies that residential status of a student does not influence the student's level of satisfaction with academic advising.

A t- test was also performed to find out the impact of the source of funding on student satisfaction. The results are presented in Table 4.9

Table 4-9: Influence of Source of Funding on Areas of Students' Satisfaction

		N	Mean	Std. D	F	Df	Sig.	Remark
Satisfaction about Academic Advising	personal loan	19	25.7895	7.21556	5.053	5, 644	.000	Sig
	Scholarship	81	29.4815	6.51174				
	NSFAS	472	26.5720	7.22721				
	self-financed	21	27.1905	8.53006				
	parent/ relatives	42	23.2143	7.77280				
	Others	15	23.5333	6.70678				
	Total	650	26.6446	7.32336				

Table 4.9 reveals that source of funding had significant influence on satisfaction with academic advising ($F_{(5, 644)} = 5.05$; $p < 0.05$) where students on scholarship had the highest satisfaction mean score (29.48), followed by self-financed students (27.19), followed by students on NSFAS (26.57), followed by those on personal loan (25.79), followed by those with undisclosed source of funding (23.53), with those on parents/relative funding having the lowest mean score (23.21). This shows that any changes made on source of funding impacted positively on student satisfaction, and on their decision to stay within the institution.

4.4.2 Academic support and student satisfaction

Student satisfaction with any form of academic support is very important because students are the primary stakeholders and beneficiaries of higher education, and their degree of satisfaction should be a concern for every institution. The study used a Pearson Product-Moment correlation analysis to find out the relationship between a predictor variable of academic support and the target variable of student satisfaction. Table 4.10 shows that there was a clear relationship between academic support and student satisfaction.

Table 4-10: Summary of Pearson Product-Moment Correlation Showing Relationship between Academic Support and Students' Satisfactions

Variables	N	Mean	Std. D	R	Sig.	Remark
Academic Support	648	28.006	6.115	.775	.000	Significant
Students' Satisfaction	648	167.849	33.689			

Table 4.10 reveals that there was a significant positive relationship between academic support and students' satisfaction ($r = 0.78$; $p < 0.05$). Therefore, hypothesis 2 was rejected. The positive relationship implies that increase in academic support brings about increase in students' satisfaction and vice-versa. A t-test on demographic variables of gender, campuses, residential status and source of funding was performed to establish their relationship with academic support. The results are presented from Table 4.11 to 4.14

Table 4.11 presents the findings between gender and the student's level of satisfaction with academic support.

Table 4-11: Difference between Male and Female Students Satisfaction with academic support

	Gender	N	Mean	Std. Deviation	t	df	Sig.	Remark
Satisfaction with Academic support	Male	257	27.6304	5.82756	1.335	648	.182	NS
	Female	393	28.2850	6.29100				

Table 4.11 shows that gender had no significant influence on satisfaction with academic support ($t = 1.34$; $df = 648$; $p > 0.05$). This implies that the gender of a student does not influence the student's level of satisfaction with academic support. Both female and

male students perceived that satisfaction with academic support influenced their decision to stay within the university.

A t-test was performed to show the influence of campus on student's level of satisfaction with academic support.

Table 4-12: Influence of Campus on satisfaction with academic support

	Campus	N	Mean	Std.D	F	Df	Sig.	Remark
Satisfaction with Academic support	Buffalo city	167	27.5329	6.52408	3.107	3, 646	.026	Sig.
	Butterworth	125	26.9120	5.33252				
	N.M.D.	332	28.5934	6.14431				
	Queestown	26	29.3077	5.80186				
	Total	650	28.0262	6.11580				

Table 4.12 reveals that campus had significant influence on students satisfaction with academic support ($F_{(3, 646)} = 3.11$; $p < 0.05$) where Queenstown had the highest satisfaction means score (29.31), followed by Nelson Mandela Drive (28.59), then Buffalo City (27.53), with Butterworth having the lowest mean score (26.91). This implies that campus influenced the level of student satisfaction with academic support and students' decision to stay within the institution.

A t-test was also undertaken to show the influence of residential status on the student's level of satisfaction with academic support. The results are presented in table 4.6c

Table 4-13: Influence of Residential Status on Students Areas of Satisfaction with academic support

	Res. Status	N	Mean	Std. Deviation	t	df	Sig.	Remark
Satisfaction about Academic support	on campus	323	28.2074	6.11969	.751	647	.453	NS
	off campus	326	27.8466	6.12544				

Table 4.13 reveals that residential status had no significant influence on student satisfaction with academic support ($t = 0.75$; $df = 647$; $p > 0.05$). This means that

students' decision to stay within the institution was influenced by perceived level of student's satisfaction with academic support irrespective of whether the student resided on or off campus.

Table 4-14: Influence of Source of Funding on academic support

		N	Mean	Std. D	F	Df	Sig.	Remark
Satisfaction about Academic support	personal loan	19	25.2632	5.91460	4.441	5, 644	.001	Sig.
	Scholarship	81	29.3210	5.47683				
	NSFAS	472	28.2055	6.03019				
	self-financed	21	28.2381	6.39457				
	parent/relatives	42	26.5476	6.73615				
	Others	15	22.7333	6.71317				
	Total	650	28.0262	6.11580				

Table 4.14 reveals that source of funding had significant influence on satisfaction with academic support ($F_{(5, 644)} = 4.44$; $p < 0.05$) where students on scholarship had the highest satisfaction meanscore (29.32), followed by self-financed students (28.24), followed by students on NSFAS (28.21), followed by those on parents/relative funding (26.55), followed by those on personal loan (25.26), while those on undisclosed source of funding had the lowest mean score (22.73).

4.4.3 Teaching approaches and student satisfaction

The research's intention was to investigate the relationship between the teaching approaches adopted by the teachers and students' satisfaction. The study also sought to determine to what extent the students' perception of teaching contributed to their satisfaction with the university. The impact of teaching methods was observed through a number of items, including lecture methods used by lecturers, interaction between lecturers and students, punctuality by lecturers, and the use of information communication technologies by lecturers. For the purpose of determining the relationship of the observed variables, the study used a Pearson Product-Moment correlation analysis to find out the relationship between a predictor variable of teaching

approaches and the target variable of student satisfaction. The results are shown in Table 4.15 below.

Table 4-15: Summary of Pearson Product-Moment Correlation Showing Relationship between Teaching Approaches and Students' Satisfactions

Variables	N	Mean	Std. D	R	Sig.	Remark
Teaching Approaches	648	28.171	5.295	.680	.000	Significant
Students' Satisfaction	648	167.849	33.689			

Table 4.15 reveals that there was a significant positive relationship between teaching approaches and students' satisfaction ($r = 0.68$; $p < 0.05$). Therefore, hypothesis 3, that there is no relationship between student satisfaction and teaching approaches, was not supported. The positive relationship implied that, improvement in teaching approaches increased students' satisfaction and vice-versa. This means that, among the possible factors that influence student satisfaction, teaching approaches attributed 68% of student satisfaction.

A t-test on demographic variables of gender, campus, residential status and source of funding was performed to establish their relationship with teaching approaches. The results are presented from Table 4.16 to 4.19.

Table 4.16 shows the findings between gender and the student's level of satisfaction with academic support.

Table 4-16: Difference between Male and Female Students Satisfaction with teaching approaches

	Gender	N	Mean	Std Deviation	T	Df	Sig.	Remark
Satisfaction with Teaching Appr.	Male	257	27.9961	5.21454	-.709	648	.479	NS
	Female	393	28.2977	5.36004				

Table 4.16 shows that gender had no significant influence on satisfaction with teaching approaches ($t = -.71$; $df = 648$; $p > 0.05$). This means that gender has nothing to do with student level of satisfaction with teaching approaches and their decision to stay within the institution.

The next table, Table 4.17 presents the t-test results to show the impact of campus on student satisfaction with teaching approaches

Table 4-17: Influence of Campus on satisfaction with teaching approaches

	Campus	N	Mean	Std Deviation	F	Df	Sig.	Remark
Satisfaction with Teaching Approaches	Buffalo city	167	29.0299	5.05562	6.619	3, 646	.000	Sig.
	Butterworth	125	26.3920	4.90539				
	N.M.D.	332	28.3705	5.53359				
	Queestown	26	28.8462	3.64079				

Table 4.17 reveals that campus had significant influence on satisfaction with teaching approaches ($F_{(3, 646)} = 6.62$; $p < 0.05$) where Buffalo City had the highest satisfaction means score (29.03), followed by Queenstown (28.84), followed by Nelson Mandela Drive (28.37) with Butterworth having the lowest mean score (26.39). This means that the level of satisfaction with teaching approaches was determined by the campus the student was located. Clearly teaching methods used by the four campuses were not the same.

Table 4.18 represents the t- test results on the impact of residential status on student satisfaction with teaching approaches.

Table 4-18: Influence of Residential Status on Students Areas of Satisfaction

	Res. Status	N	Mean	Std. Deviation	t	Df	Sig.	Reamrk
Satisfaction with Teaching Approaches.	on campus	323	28.1362	5.38747	-.196	647	.845	NS
	off campus	326	28.2178	5.22995				

Table 4.18 reveals that residential status had no significant influence on teaching approaches ($t = -0.20$; $df = 647$; $p > 0.05$). This means that residential status did not influence the student satisfaction levels with teaching approaches. Therefore, residential status does not matter to student's level of satisfaction with teaching approaches and their decision to stay within the institution.

A t- test was also performed to establish the impact of source of funding on student satisfaction levels with teaching approaches. The results are presented in Table 4.19.

Table 4-19: Influence of Source of Funding on teaching approaches

		N	Mean	Std. D	F	Df	Sig.	Remark
Satisfaction about Teaching Approaches	personal loan	19	27.0526	4.49041	1.645	5, 644	.146	NS
	Scholarship	81	29.2346	5.22798				
	NSFAS	472	28.0487	5.22770				
	self-financed	21	29.2857	5.83218				
	parent/relatives	42	28.3810	5.54781				
	Others	15	25.8667	6.78093				

Table 4.19 shows that the source of funding had no significant influence on satisfaction with teaching approach ($F_{(5, 644)} = 1.65$; $p > 0.05$). Teaching approaches influence the level of student satisfaction irrespective of the source of funding received by the student.

4.4.4 Student Assessment and student satisfaction

The research's intention was to investigate the relationship between the students' perception of assessment and their satisfaction. The study also sought to determine to what extent the students' perception of assessment techniques impacted their decision to stay at the university. The impact of assessment was observed through a number of items, including fairness, guidelines, assessment techniques, understanding and feedback. For the purpose of determining the relationship of the observed variables, the study used a Pearson Product-Moment correlation analysis to find out the relationship between a predictor variable of assessment and the target variable of student satisfaction. The results are shown in Table 4.20 below.

Table 4-20: Summary of Pearson Product-Moment Correlation Showing Relationship between Students' Assessment Techniques and Students' Satisfaction

Variables	N	Mean	Std. D	r	Sig.	Remark
Students' Assess. Tech	648	32.796	6.196	.733	.000	Significant
Students' Satisfaction	648	167.849	33.689			

Table 4.20 reveals that there is a significant positive relationship between students' assessment techniques and students' satisfaction ($r = 0.73$; $p < 0.05$). Therefore, hypothesis 4 which says that there is no significant relationship between assessment techniques and student satisfaction was rejected. The positive relationship implies that better students' assessment techniques bring about increase in students' satisfaction.

A t-test on demographic variables of gender, campuses, residential status and source of funding was performed to establish their relationship with assessment techniques. The results are presented from Table 4.21 to 4.24

Table 4.21 shows the finding between gender and the student's level of satisfaction with assessment techniques

Table 4-21: Difference between Male and Female Students Satisfaction with assessment techniques

	Gender	N	Mean	Std. Dev.	T	Df	Sig.	Remark
Satisfaction with Students' Assmt.	Male	257	32.1790	5.72746	-2.083	648	.038	Sig.
	Female	393	33.2112	6.45184				

Table 4.21 reveals that gender had a significant influence on students' satisfaction with assessment techniques ($t = 2.08$; $df = 648$; $p < 0.05$), where female students had higher satisfaction mean score (33.21) than male students (32.18). This means that female students perceived that satisfaction with assessment technique strongly impacted their decision to stay within the institution as compared to male students.

The next table, Table 4.22 presents the t-test results on the impact of campus on student satisfaction with assessment techniques.

Table 4-22: Influence of Campus on satisfaction with assessment techniques

	Campus	N	Mean	Std. D	F	Df	Sig.	Remark
Satisfaction with Students' Assessment	Buffalo city	167	33.2156	6.21514	.719	3, 646	.541	NS
	Butterworth	125	32.1680	5.94564				
	N.M.D.	332	32.8042	6.24869				
	Queestown	26	33.1923	6.56670				

Table 4.22 shows that campus had no significant influence on satisfaction with students assessment techniques ($F_{(3, 646)} = 0.72$; $p > 0.05$). This implies that the level of satisfaction with assessment technique was not determined by the campus the student was located.

Table 4.23 below presents the t- test results on the impact of residential status on student satisfaction with assessment techniques.

Table 4-23: Influence of Residential Status on student assessment techniques

	Res Status	N	Mean	Std. Deviation	T	Df	Sig	Reamrk
Satisfaction with Students' Assessment.	on campus	323	33.1084	6.19988	1.239	647	.216	NS
	off campus	326	32.5061	6.18720				

Table 4.23 reveals that residential status had no significant influence on students assessment techniques ($t = 1.24$; $df = 647$; $p > 0.05$). This shows that students' level of satisfaction with assessment techniques was not determined by their residential status. The students perceived that the level of satisfaction with assessment techniques influence their decision to stay within the institution irrespective of whether they resided on campus or off campus.

A t- test was also performed to establish the impact of source of funding on student satisfaction levels with assessment technique. The results are presented in Table 4.24.

Table 4-24: Influence of Source of Funding on assessment techniques

		N	Mean	Std. D	F	Df	Sig.	Remark
Satisfaction with Students' Assessment	personal loan	19	30.3684	5.38734	2.991	5, 644	.011	Sig.
	Scholarship	81	34.7654	4.89967				
	NSFAS	472	32.7436	6.28279				
	self-financed	21	32.7619	4.67873				
	parent/relative	42	31.6429	7.08079				

Table 4.24 reveals that source of funding had significant influence on student satisfaction with student assessment ($F_{(5, 644)} = 2.99$; $p < 0.05$) where students on self-finance had the highest mean score (29.29), followed by students on scholarship (29.23), followed by those on parents/relatives' funding (28.38), followed by students on NSFAS (28.05), followed by those on personal loan (27.05), while those on undisclosed source of funding had the lowest mean score (25.87). This implied that student level of

satisfaction with assessment techniques was also influenced by the source of funding received by the student.

4.4.5 Learning Facilities and student satisfaction

The researcher's intention was to assess the relationship between the students' perception of the learning facilities and their satisfaction. The study also sought to determine to what extent the students' perception of learning facilities impacted their decision to stay within the university. Learning facilities were observed through a number of items, including classrooms, teaching and learning resources, laboratories, equipment and library facilities. For the purpose of determining the relationship of the observed variables, the study used a Pearson Product-Moment correlation analysis to find out the relationship between a predictor variable of learning facilities and the target variable of student satisfaction. The results are shown in Table 4.25 below.

Table 4-25: Summary of Pearson Product-Moment Correlation Showing Relationship between Learning Facilities and Students' Satisfactions

Variables	N	Mean	Std. D	R	Sig.	Remark
Learning Facilities	648	28.576	7.730	.848	.000	Significant
Students' Satisfaction	648	167.849	33.689			

Table 4.25 shows that there was a significant positive relationship between availability of learning facilities and students' satisfaction ($r = 0.85$; $p < 0.05$). Therefore, hypothesis 5 which states that there is no significant relationship between learning facilities and student satisfaction was rejected. The positive relationship here implies that the more available quality learning facilities are, the increase in students' satisfaction.

A t-test on demographic variables of gender, campuses, residential status and source of funding was performed to establish their relationship with learning facilities. The results are presented from Table 4.26 to 4.29.

Table 4.26 shows the finding between gender and the student's level of satisfaction with learning facilities.

Table 4-26: Difference between Male and Female Students Satisfaction with Learning Facilities

	Gender	N	Mean	Std	T	Df	Sig	
Satisfaction about learning facilities	Male	257	27.6031	7.85203	-2.641	648	.008	Sig.
	Female	393	29.2316	7.57681				

Table 4.26 reveals that gender had a significant influence on satisfaction with learning facilities ($t = 2.64$; $df = 648$; $p < 0.05$) where female students had higher satisfaction mean score (29.23) than male students (27.60). This means that the student level of satisfaction with learning facilities was also influenced by the availability of funds and this also impacted on their decision to stay within the institution.

The next table, Table 4.27 presents the t-test results on the impact of campus on student satisfaction with learning facilities..

Table 4-27: Influence of Campus on satisfaction with learning Facilities

	Campus	N	Mean	Std. Deviation	F	Df	Sig	Remark
Satisfaction with learning facilities	Buffalo city	167	27.9341	8.34940	8.470	3, 646	.000	Sig.
	Butterworth	125	26.3360	7.49187				
	N.M.D	332	29.9488	7.18931				
	Queestown	26	26.2308	7.98653				
	Total	650	28.5877	7.72201				

Table 4.27 reveals that campus had a significant influence on student satisfaction with learning facilities ($F_{(3, 646)} = 8.47$; $p < 0.05$) where Nelson Mandela Drive had the highest satisfaction means score (29.95), followed by Buffalo City (27.93), followed by Butterworth (26.34), and then Queenstown with the lowest mean score (26.23). This

means that the level of satisfaction with learning facilities was also determined by the campus where the student is located.

Table 4.28 below shows the t- test results performed to show the impact of residential status on student satisfaction with learning facilities.

Table 4-28: Influence of Residential Status on student learning facilities

	Res Status	N	Mean	Std. Deviation	T	Df	Sig	Remark
Satisfaction with learning facilities	on campus	323	29.1455	7.49744	1.841	647	.066	NS
	off campus	326	28.0307	7.92187				

Table 4.28 reveals that residential status had no significant influence on student satisfaction with learning facilities ($t = 1.84$; $df = 647$; $p > 0.05$). This implies that student's level of satisfaction with learning facilities was not determined by their residential status. The study therefore, concluded that students perceived that the level of satisfaction with learning facilities influenced their decision to stay within the institution irrespective of whether they resided on campus or off campus.

A t- test was also performed to establish the impact of source of funding on student satisfaction levels with learning facilities. The results are presented in Table 4.29.

Table 4-29: Influence of Source of Funding on learning facilities

		N	Mean	Std. D	F	Df	Sig.	Remark
Satisfaction with learning facilities	personal loan	19	26.7895	6.73778	2.191	5, 644	.054	NS
	Scholarship	81	30.5309	6.52703				
	NSFAS	472	28.5212	7.83018				
	self-financed	21	28.8095	9.20119				
	parent/relatives	42	27.7381	7.61917				
	Others	15	24.5333	7.90901				

Table 4.29 reveals that source of funding had no significant influence on satisfaction with learning facilities ($F_{(5, 644)} = 2.19$; $p > 0.05$). This means that student level of satisfaction with learning facilities was not dependent upon their sources of finance.

4.4.6 Student funding services and student satisfaction

The researcher's intention was to assess the relationship between the students' perception of funding services and their satisfaction. The study also intended to determine to what extent the students' perception of funding services was to their satisfaction within the university. The impact of funding services was observed through a number of items, including, having enough money to cover basic needs like tuition, accommodation, transport, food, textbooks and stationary. For the purpose of determining the relationship of the observed variables, the study used a Pearson Product-Moment correlation analysis to find out the relationship between a predictor variable of funding services and the target variable of student satisfaction. The results are shown in Table 4.30 below.

Table 4-30: Summary of Pearson Product-Moment Correlation Showing Relationship between Student's Funding and Students' Satisfactions

Variables	N	Mean	Std. D	R	Sig.	Remark
Student's Funding	648	26.415	7.796			
Students' Satisfaction	648	167.849	33.689	.799	.000	Significant

Table 4.30 shows that there was a significant positive relationship between students' funding and students' satisfaction ($r = 0.80$; $p < 0.05$). Therefore, hypothesis 6 which says there is no significant relationship between student student funding services and student satisfaction was rejected. The positive relationship here implies that the more available the funding to students, the higher the students' satisfaction.

A t-test on demographic variables of gender, campuses, residential status and source of funding was performed to establish their relationship with learning facilities. The results are presented from Table 4.31 to 4.34

Table 4.31 below shows the finding between gender and the student's level of satisfaction with funding services.

Table 4-31: Difference between Male and Female Students Satisfaction with funding services

	Gender	N	Mean	Std Deviation	T	Df	Sig	Remark
Satisfaction about Students' funding	Male	257	25.5681	7.73614	-2.331	648	.020	Sig.
	Female	393	27.0229	7.81038				

Table 4.31 reveals that gender had a significant influence on student satisfaction with students' funding services ($t = -2.33$; $df = 648$; $p < 0.05$), where female students had higher mean score (27.02) than male students (25.57). This means that gender plays no influence on the level of satisfaction with funding services. The student decision to stay within the institution depended upon the level of satisfaction with funding services.

The next table, Table 4.32 the t-test results on the impact of campus on student satisfaction with student funding services.

Table 4-32: Influence of Campus on satisfaction with student funding services

	Campus	N	Mean	Std Deviation	F	Df	Sig	Remark
Satisfaction with Students' funding	Buffalo city	167	25.8204	8.31047	6.441	3, 646	.000	Sig.
	Butterworth	125	24.4080	6.61754				
	NMD	332	27.6627	7.72179				
	Queestown	26	24.7692	8.44421				
	Total	650	26.4477	7.80766				

Table 4.32 reveals that campus had a significant influence on student satisfaction with students' funding ($F_{(3, 646)} = 6.44$; $p < 0.05$) where Nelson Mandela Drive had the highest satisfaction means score (27.66), followed by Buffalo City (25.82), followed by Queenstown (24.77), and lastly, Butterworth with the lowest mean score (24.41). This shows that the perceived level of satisfaction with funding services depended on the funding services by the institution.

Table 4.33 below shows the t- test results on the impact campus on student satisfaction with student funding services.

Table 4-33: Influence of Residential Status on student funding services

	Res Status	N	Mean	Std. Deviation	T	Df	Sig	Remark
Satisfaction with Students' funding	on campus	323	26.7214	7.76057	.906	647	.365	NS
	off campus	326	26.1656	7.86561				

Table 4.33 reveals that residential status had no significant influence on satisfaction with student funding services ($t = 0.91$; $df = 647$; $p > 0.05$). This implies that students' level of satisfaction with funding services was not determined by their residential status.

A t- test was performed to establish the impact of source of funding on student satisfaction levels with student funding services. The results are presented in Table 4.34.

Table 4-34: Influence of Source of Funding on student funding services

		N	Mean	Std. D	F	Df	Sig.	Remark
Satisfaction about Students'	personal loan	19	24.3684	8.58429				
	Scholarship	81	27.6296	7.11415				

funding	NSFAS	472	26.6737	7.66243	3.699	5, 644	.003	Sig.
	self-financed	21	28.5238	8.00387				
	parent/relatives	42	22.2857	8.56050				
	Others	15	24.3333	9.03696				
	Total	650	26.4477	7.80766				

Table 4.34 reveals that source of funding had significant influence on student satisfaction with students funding services ($F_{(5, 644)} = 3.70$; $p < 0.05$) where students on scholarship had the highest satisfaction means score (30.53), followed by self-financed students (28.81), followed by students on NSFAS (28.52), followed by those on parents/relatives funding (27.74), followed by those on personal loan (26.79), while those on undisclosed source of funding had the lowest mean score (24.53). This implies that satisfaction with funding services depended on funding services provided to students by the university.

4.4.7 Student accommodation and student satisfaction

The researcher's intention was also to assess the relationship between the students' perception of accommodation and their satisfaction. The study also sought to determine to what extent the students' perception of accommodation impacted their decision to stay within the university. Student accommodation was observed through a number of items, including affordability, time to study, distance, integration with others, friendship, comfortability and technology infrastructure. For the purpose of determining the relationship of the observed variables, the study used a Pearson Product-Moment correlation analysis to find out the relationship between a predictor variable of student accommodation and the target variable of student satisfaction. The results are shown in Table 4.35 below.

Table 4-35: Summary of Pearson Product-Moment Correlation Showing Relationship between Student's Accommodation and Students' Satisfactions

Variables	N	Mean	Std. D	r	Sig.	Remark
Student's Accom.	648	28.360	7.657	.822	.000	Significant
Students' Satisfaction	648	167.849	33.689			

Table 4.35 shows that there was a significant positive relationship between students' accommodation and students' satisfaction ($r = 0.82$; $p < 0.05$). Therefore, hypothesis 7 which says there is no significant relationship between student accommodation and student satisfaction was rejected. The positive relationship here implies that the better the students' accommodation, the greater the students' satisfaction.

A t-test on demographic variables of gender, campuses, residential status and source of funding was performed to establish their relationship with student accommodation. The results are presented from Table 4.36 to 4.39.

Table 4.36 below shows the findings between gender and the student's level of satisfaction with student accommodation.

Table 4-36: Difference between Male and Female Students Satisfaction with student accommodation

	Gender	N	Mean	Std. Deviation	T	Df	Sig.	Remark
Satisfaction with Students' accommodation	Male	257	27.4397	7.68097	-2.565	648	.011	Sig.
	Female	393	29.0102	7.59934				

Table 4.36 reveals that gender had a significant influence on satisfaction with students' accommodation ($t = 2.57$; $df = 648$; $p < 0.05$) where female students had a higher mean score (29.01) than male students (27.44).

The next table, Table 4.37 presents the t-test results on the impact of campus on student satisfaction with student accommodation.

Table 4-37: Influence of Campus on satisfaction with student accommodation

	Campus	N	Mean	Std. Deviation	F	Df	Sig.	Remark
Satisfaction with Students' accommodation	Buffalo city	167	27.3054	7.97036	11.460	3, 646	.000	Sig.
	Butterworth	125	25.9920	7.17241				
	NMD	332	30.0151	7.28258				
	Queestown	26	26.1154	8.29133				
	Total	650	28.3892	7.66443				

Table 4.37 reveals that campus had a significant influence on the satisfaction with students' accommodation ($F_{(3, 646)} = 11.46$; $p < 0.05$) where Nelson Mandela Drive had the highest satisfaction mean score (30.02), followed by Buffalo City (27.31), followed by Queenstown (26.12), with Butterworth having the lowest mean score (25.99). This implies that satisfaction with accommodation depends on the campus the student is located, Students from all campuses perceived that satisfaction with accommodation depended on campus accommodation services offered to students. The result indicates that Nelson Mandela Drive students were more sensitive to accommodation services, followed by Buffalo City, Queenstown and Butterworth.

Table 4.38 below shows the t- test results on the impact of residential status on student satisfaction with accommodation services.

Table 4-38: Influence of Residential Status on student accommodation services

	Res Status	N	Mean	Std. Deviation	T	Df	Sig.	Remark
Satisfaction about Students' accdtn.	on campus	323	29.3096	7.28161	3.071	647	.002	Sig.
	off campus	326	27.4724	7.94234				

Table 4.38 reveals that residential status had a significant influence on satisfaction with accommodation ($t = 3.07$; $df = 647$; $p < 0.05$) where students on campus had higher satisfaction mean score (29.31) than students who stayed off campus (27.47). This shows that satisfaction with accommodation services is a function of the residential status of students.

A t- test was performed to establish the impact of source of funding on student satisfaction with accommodation services. The results are presented in Table 4.39.

Table 4-39: Influence of Source of Funding on student satisfaction with accommodation services

		N	Mean	Stt. D	F	Df	Sig.	Remark
Satisfaction with Students' accommodation	personal loan	19	26.0526	7.32935	2.679	5, 644	.021	Sig.
	Scholarship	81	30.5185	6.73445				
	NSFAS	472	28.4131	7.65116				
	self-financed	21	27.8095	8.42389				
	parent/relative	42	26.4524	8.37302				
	Others	15	25.3333	7.96122				
	Total	650	28.3892	7.66443				

Table 4.39 reveals that source of funding had significant influence on satisfaction with accommodation ($F_{(5, 644)} = 2.68$; $p < 0.05$) where students on scholarship had the highest satisfaction mean score (30.52), followed by students on NSFAS (28.41), followed by self-financed students (27.81), followed by students on parents/relative (26.45), followed by those on personal loans (26.05), while those on undisclosed source of funding had

the lowest mean score (25.33). This shows that satisfaction with accommodation depended on funding available to students.

4.4.8 Student administrative services and student satisfaction

The researcher's intention was to assess the relationship between the students' perception of administrative services and their satisfaction. The study also sought to determine to what extent the students' perception of administrative services impacted their decision to stay within the university. For the purpose of determining the relationship of the observed variables, the study used a Pearson Product-Moment correlation analysis to find out the relationship between a predictor variable of student administrative services and the target variable of student satisfaction. The results are shown in Table 4.40 below.

Table 4-40: Summary of Pearson Product-Moment Correlation Showing Relationship between Student's Administrative services and Students' Satisfaction

Variables	N	Mean	Std. D	r	Sig.	Remark
Student's Admin. Services	648	26.827	7.625	.796	.000	Significant
Students' Satisfaction	648	167.849	33.689			

Table 4.40 shows that there was a significant positive relationship between students administrative services and students' satisfaction ($r = 0.80$; $p < 0.05$). Therefore, hypothesis 8 which says there is no significant relationship between student administrative services and student satisfaction is rejected. The positive relationship here implies that the better the administrative services students enjoyed, the higher the students' satisfaction.

A t-test on demographic variables of gender, campuses, residential status and source of funding was performed to establish their relationship with student administration services. The results are presented from Table 4.41 to 4.44.

Table 4.41 below shows the findings about gender and the student's level of satisfaction with student administration services.

Table 4-41: Difference between Male and Female Students Satisfaction with student administration services

	Gender	N	Mean	Std Deviation	T	Df	Sig	Remark
Satisfaction with studts admin svcs.	Male	257	26.1012	7.12044	-1.969	648	.049	Sig.
	Female	391	27.3043	7.91247				

Table 4.41 reveals that gender had a significant influence on student satisfaction with students' administrative services ($t = 1.97$; $df = 648$; $p < 0.05$) where female students had higher mean score (27.30) than male students (26.10). This means that female students valued the type of service they receive from the institution more.

The next table, Table 4.42 presents the t-test results on the impact of campus on student satisfaction with student administration services.

Table 4-42: Influence of Campus on satisfaction with student administration services

	Campus	N	Mean	Std. D	F	Df	Sig.	Remark
Satisfacti on with students admin services	Buffalo city	167	27.5749	8.26767	6.217	3, 646	.000	Sig.
	Butterworth	125	24.3040	6.87823				
	NMD	330	27.4848	7.32453				
	Queestown	26	25.8077	8.24145				
	Total	648	26.8272	7.62537				

Table 4.42 reveals that campus had a significant influence on satisfaction with administrative services ($F_{(3, 646)} = 6.22$; $p < 0.05$) where Buffalo City has the highest

satisfaction means score (27.58), followed by Nelson Mandela Drive (27.49) followed by Queenstown (25.81), and Butterworth had the lowest mean score (24.30). Satisfaction with administrative services depended on the campus the student was located.

Table 4.43 below shows the t- test results on the impact of residential status on student satisfaction with administration services.

Table 4-43: Influence of Residential Status on student administration services

	Res Status	N	Mean	Std Deviation	T	Df	Sig	Remark
Satisfaction with students admin svcs.	on campus	323	26.8978	7.48905	.251	645	.802	NS
	off campus	324	26.7469	7.77932				

Table 4.43 reveals that residential status had no significant influence on satisfaction with administrative services ($t = 0.25$; $df = 647$; $p > 0.05$). This implies that residential status had no impact on student administrative services.

A t- test was performed to establish the impact of source of funding on student satisfaction levels with student funding services. The results are presented in Table 4.44.

Table 4-44: Influence of Source of Funding on student administration services

		N	Mean	Std. D	F	Df	Sig.	Remark
Satisfaction with students admin services	personal loan	19	25.6842	6.77457	2.188	5, 642	.054	NS
	Scholarship	81	28.9877	5.61581				
	NSFAS	470	26.5191	7.75110				
	self-financed	21	29.0476	8.55264				
	parent/relatives	42	26.2619	8.46243				
	Others	15	24.7333	8.72162				
	Total	648	26.8272	7.62537				

Table 4.44 reveals that source of funding had no significant influence on satisfaction with administration services ($F_{(5, 642)} = 2.19$; $p > 0.05$). This meant that student satisfaction with administration services did not depend on funding provided to students.

4.5 THE CONCEPTUAL FRAMEWORK FOR THE STUDY

All the research hypotheses related to the research constructs were statistically tested and presented in this chapter. The results in Table 4.4 showed that all institutional factors had a strong significant influence on students' satisfaction ($R = 0.631$). The study undertook to establish whether demographic characteristics of gender, campus, residential status and source of funding had an influence on student satisfaction in the selection institution.

The results revealed that gender contributed significantly to student assessment, learning facilities, funding services student accommodation and administrative services. Campus contributed significantly to academic support, teaching approaches, learning facilities, funding services student accommodation and administrative services.

Residential status contributed significantly to student accommodation only. Source of funding contributed significantly to academic advising, academic support, student assessment techniques, funding services and student accommodation. The results are presented in the figure below.

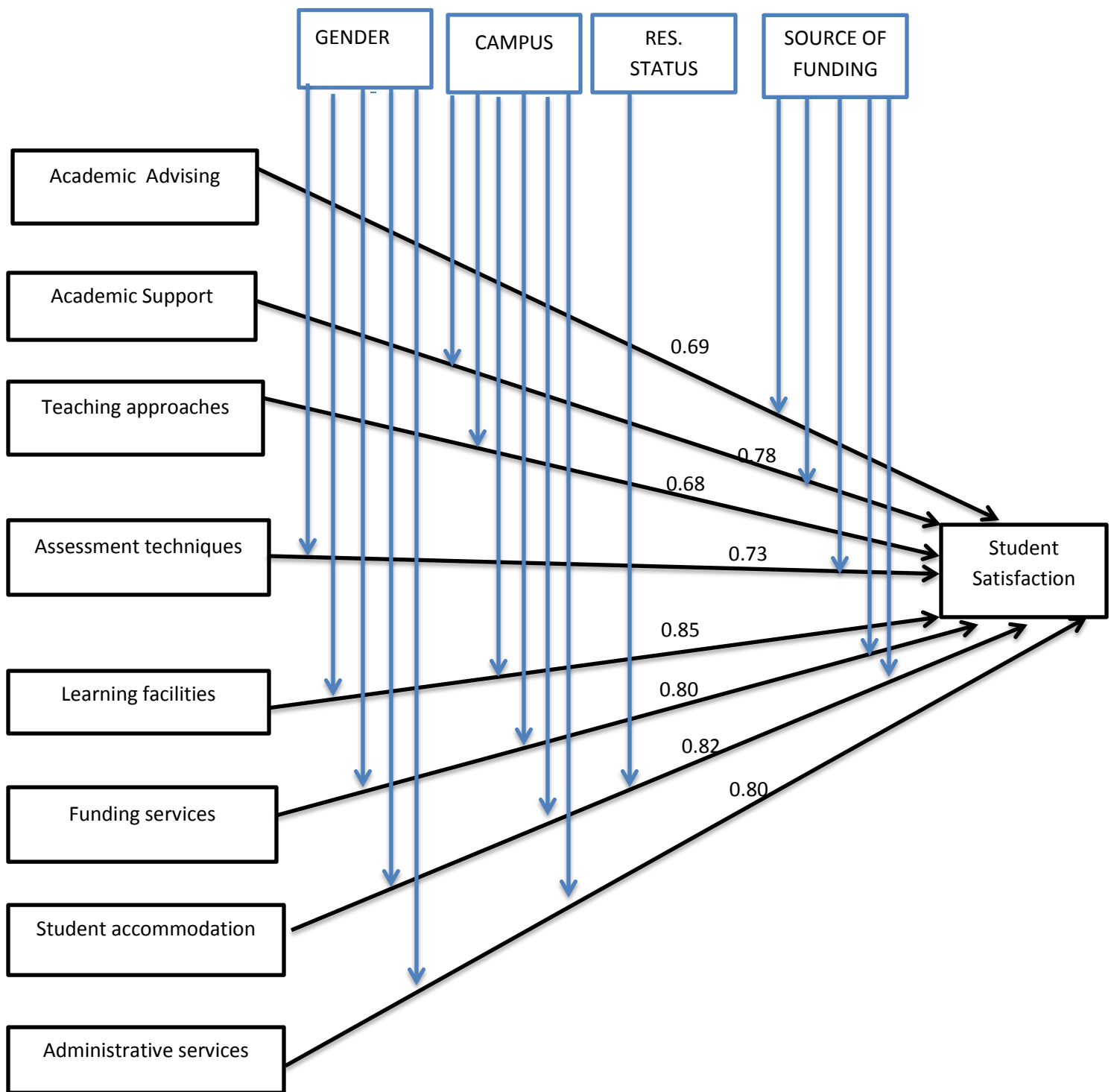


Figure 4-1: Conceptual model based on Institutional factors

In designing the model in figure 6.1, two kinds of analyses were used. First, the study tested eight institutional factors on the dependent variable of student satisfaction. The results were presented in this chapter. The model comprises eight independent variables: academic advising, academic support, teaching approaches, assessment techniques, learning facilities, funding services, student accommodation and administrative services and one dependent variable: student satisfaction. Secondly, the influence of demographical characteristics was analysed as part of the model.

4.6 SUMMARY OF FINDINGS

Based on the analysis and interpretation done so far, the following is a summary of findings of this study:

1. Institutional factors make a total of 63% contributions to students' experiences of satisfaction and the contribution is significant.
2. All the institutional factors had significant relative contributions to the students' satisfaction. The contributors, arranged from highest to lowest were: learning facilities, academic advising, students' accommodation, students' administrative services, academic support, students' funding, teaching approach, and students' assessment.
3. There was a significant positive relationship between academic advising and students' satisfaction.
4. There was a significant positive relationship between academic support and students' satisfaction.
5. There was a significant positive relationship between teaching approaches and students' satisfaction.
6. There was a significant positive relationship between students' assessment techniques and students' satisfaction.
7. There was a significant positive relationship between availability of learning facilities and students' satisfaction.
8. There was a significant positive relationship between student's funding and students' satisfaction.

9. There was a significant positive relationship between student's accommodation and students' satisfaction.
10. There was a significant positive relationship between student's administrative services and students' satisfaction.
11. There was a significant difference between male and female students in their level of satisfaction
12. Campus had significant influence on students' satisfaction. The mean values showed that students in Nelson Mandela drive had the highest satisfaction followed by those in Buffalo City, followed by those in Queens' Town, while those in Butterworth had the lowest satisfaction.
13. Residential status did not influence students' satisfaction significantly.
14. Source of funding influenced students' satisfaction significantly. Students on scholarship had the highest satisfaction, followed by self-financed students, followed by students funded by NSFAS, followed by students funded by parents/relatives, followed by students on personal loan while students that accessed funding in other means not mentioned above had the least satisfaction.

CHAPTER FIVE

DISCUSSION OF FINDINGS

5.1 INTRODUCTION

Chapter five provides the discussion of the findings. It discusses the findings with reference to the research questions and hypotheses formulated in chapter one, the literature reviewed in chapter two, and the statistical results in chapter four.

5.2 RESEARCH QUESTIONS

The study was designed to assess student satisfaction with institutional factors that affect student retention in one comprehensive institution of higher education in the Eastern Cape. The study focused on eight institutional factors, namely; academic advising, academic support, teaching approaches, assessment techniques, learning facilities, funding services, student residence and student administration. The results of the study are interpreted in light of quantitative data obtained around four sites of the selected institution. The discussions are based on student views about the extent to which their level of satisfaction with institutional factors contributed to their decision to stay at the university. The researcher's intention was to determine whether student satisfaction was predictive of student retention. The study succeeded in answering the two research questions.

5.2.1 Findings on research questions

Findings in chapter four show that Institutional factors contributed 63% to students' experiences of satisfaction and the contribution was significant. Results showed a significant relationship between all the institutional factors and the students' satisfaction ($R = 0.80$). This suggests that if universities are to improve student satisfaction with institutional factors, they should focus on the eight factors identified in the study. The study asserts that student retention is dependent on student satisfaction levels with

institutional factors. Therefore, any changes made in any of these factors will have an impact on student satisfaction and their intention to stay within the university. The study resonates with Danjuma and Rasli's (2012) observation that satisfaction is an essential element for customer attachment which leads to continuity of the student in the education institution, which is student retention.

Student satisfaction with the institution is a key factor in persistence, as students who are satisfied with their experiences on campus tend to persist to graduation (Kuh, Kinzie, Buckley, Bridges & Hayek, 2006). Effective management of these institutional factors should therefore, be an important focus in retaining the students and improving the success and graduation rates. The university should identify practices and organizational structures that facilitate learning and increase student satisfaction, and ultimately student retention and graduation.

Literature notes that institutions of higher learning are to realize the significance of student satisfaction meaning and progress, and are to conduct student satisfaction surveys on a regular basis (Hester, 2008). Institutions should also realise that higher education is a 'service industry' that they therefore need to place greater emphasis on meeting the expectations needs of their customers, i.e. students (DeShields et al., 2005). Furthermore, the intense competition in the educational market forces universities to adopt a market orientation strategy in order to differentiate their services from those of their competitors. Therefore, they increasingly need to be aware of, and understand their target markets, assess the target market needs, adapt their offerings in order to meet those needs and enhance customer satisfaction.

This calls for institutions to have a robust and systematic survey management system that enables the tracking and improvement of student experience at all levels of the university operations including course, subject and teacher levels. The study supports the findings by other researchers (Astin, 1977; Bryant, 2009; DeShields, Kara, & Kaynak, 2005; Pascarella & Terenzini, 2005), that highly satisfied students are more likely to remain in, and successfully graduate from, the institution. Dissatisfied students

may cut down on the number of courses or drop out of colleges or universities completely.

Chapter four also revealed that the level of contribution by each individual variable is not the same though all of them showed a positive correlation with student satisfaction. This supports the view that there are many different factors that are important in shaping overall student satisfaction. In the current study, the satisfaction contributors, arranged from highest to lowest are: learning facilities, academic advising, students' accommodation, students' administrative services, academic support, students' funding, teaching approach and students' assessment. It was apparent that learning facilities had the greatest impact on satisfaction, followed by academic advising, student accommodation and administrative services and the other factors as presented in Table 4.3.

Learning facilities were rated as the most important factor out of other institutional factors in the study because students spend a lot of their time interacting with the facilities. Students spend more time in libraries and in laboratories and widely use the stores where they can get the necessary books and teaching materials. Quality and availability of learning resources is approached from a range of indicators that support teaching, learning and research activities in a university. Such indicators include lecture facilities, laboratory facilities and library services.

Although students' satisfaction in universities is affected by various factors, quality of academic resources, a key component of educational service quality, has generated a lot of interest in recent years (Prasad & Jha, 2013). Ndirangu & Udoto (2011) observed that overcrowded facilities and consequent deterioration in in-door air quality, poorly maintained lecture and library buildings susceptible to weather hazards, and inadequate teaching and learning resources, were likely to impact negatively on student achievement and academic staff motivation. Suleman and Hussain, (2014) observed

that an unfavorable classroom environment can discourage the learners and make them less willing to learn.

Research conducted by Levitz, (2011) found that students rate academic advising as the most important priority among twelve campus-related characteristics. The findings also concurred with the view by Nutt (2003), that academic advising is the very core of successful institutional efforts to educate and retain students. Therefore, academic advising should be viewed as the 'hub of the wheel' and not just one of the various isolated services provided for students. Academic advisors offer students the personal connection with the institution that the research indicates is vital to student retention and student success.

Fike and Fike (2008) found student interaction with support services, including regular meetings with an advisor and completion of a long-term plan of study, among the factors positively correlating with student persistence. Student satisfaction with academic advising emanates from engaging students in thinking critically about their academic decisions and helping them plan effectively for their academic and professional careers (Schulenberg & Linhorst, 2008: 43). Advisors should spend time in face-to-face interactions with students, talking about long- and short-term educational and professional goals, degree requirements, class schedules, and even personal problems.

Student accommodation has been rated as the third most important factor affecting student satisfaction. This is because availability of student accommodation is considered as one of the major factors that a student considers when choosing a university. These findings support the view by Najib and Yusof (2009) and Khozaei et al. (2010) that, in today's higher education environment, the demand for modern on-campus housing has increased compelling institutions to cater for student housing needs. The student accommodation complex has to offer rooms that are equipped with complete facilities and services, but the space can also encourage friendships and provide a silent study environment.

The literature review states that increasing student desires for privacy and luxury, the integration of technology into learning and daily life, and calls for greater sustainability of student housing have changed the residence life landscape (Devlin, Donovan, Nicolov, Nold, & Zandan, 2008; Marsters & Bliss, 2007; Martin & Allen, 2009 and Romano & Hanish, 2003). Student housing offers security and privacy and renting such spaces to students allows university housing administrators to fulfill student needs and aspirations (Najib and Yusof, 2009).

Student administrative services were rated as mediocre because students considered themselves as customers who, buy knowledge in order to satisfy their own needs for knowledge. The result indicates that the importance of administrative staff gets an increasingly important role in the process of meeting students' demands (Nyer, 2000). Students' satisfaction with the overall university environment is essential for keeping students within the institution, as well as for their recommendations of the faculty to prospective students (Danjuma, Rasli, 2012). The study supports the findings by Scott, (2006); Krause, Hartley, James & McInnis, (2005) that student satisfaction is based on both learning and teaching facilities and administrative factors (student support, resources and infrastructure).

The university will have to understand that students are in a better position to assess quality of courses and teaching, quality of support services, and the quality of resources and infrastructure based on their learning experience. Universities provide a range of academic and non-academic services and support to students. According to Ramsden (2009), prospective students need better information about what they can expect from higher education in terms of independence in learning, contact with tutors, and other forms of support. Students are the most important clients of universities, and their experience or knowledge and understanding of higher education must be based on their voices. In allowing that, universities are able to identify services that students rate as most important with high satisfaction rating. Institutions need to be able to monitor the

changing trends in student experience in order to improve the quality of student experience.

The result from the study further indicated that providing meaningful learning experiences for the students must be regarded as one of the most important missions for the institution. These learning experiences are determined by the collective effort of faculty, staff and students. The university has to note that students join higher education with their own expectations of learning experiences. These expectations impact how students respond to their environments and also act as precursors to students as they make academic decisions, such as choice of subject majors (Pike, 2006). Expectations can also influence how students respond to their academic surroundings and impact their decisions of whether or not to remain in certain fields of study, or college in general (Bosch, Hester, MacEntee, MacKenzie, Morey & Nichols, 2008; Kuh, Gonyea & Williams, 2005; Pike, 2006). The results showed that the predictors of student satisfaction and retention were learning facilities, effective support systems, teaching and learning and campus facilities library and campus facilities.

5.3 HYPOTHESIS TESTING

As the study asserts that student retention is dependent on the student satisfaction with the institution, it is therefore, important to report on the factors which impact on student satisfaction.

5.3.1 Academic advising and student satisfaction

The empirical result shows a significant positive relationship between academic advising and students' satisfaction. In this study academic advising explains more than 68.5% of student satisfaction. This means that more than 68 percent of students strongly agreed that satisfaction with academic advising impact the decision to stay at the university. The results further indicate that satisfaction with academic advising between the demographic variables of gender, campus and residential status in the selected institution does not differ, except with the source of funding. These findings are consistent with other studies (Burk and Bender, 2005; Oliver et al., 1999). It was

established in the study that source of funding had a significant effect on student satisfaction with academic advising. The study revealed that students who received scholarships or grants felt they had better opportunities than others. Funding motivate them to study more effectively and with more commitment (Bettinger, 2004). These results call for academic advisors on various university campuses to know basic financial aid information. Moreover, financial aid is, perhaps, one of the most problematic and complex student service areas impacting student success today.

The findings revealed that academic advising matters to students and the development of effective advising relationships rests upon a foundation of student satisfaction. The study findings are parallel to Noel-Levitz (2011) where students rated academic advising as the most important priority among twelve campus-related characteristics. Previous studies have found a positive association between academic advising and student's retention and satisfaction (Kohle Paul & Fitzpatrick, 2015; Vianden & Barlow, 2015). The results also support the view by Metzner (1989) as cited by Hale, et al. (2009) that keeping students satisfied with their advisors increases the likelihood that they will also be satisfied with their education because they know they are on the right track and do not feel lost. Satisfaction with advising services plays an important role because of its interconnectedness to other influences on student integration and institutional commitment. For example, a student who receives poor advice may register for incorrect courses, thus registering for courses that are beyond his or her level of preparation.

Literature acknowledges the importance of academic advising in a student's educational journey. King and Kerr, 2005; Thomas (2002) and Pascarella & Terenzini (1991) note that academic advising is clearly a key factor in challenging and supporting students in making a successful transition to college, feeling a part of their institutions, and achieving their educational goals. Students view academic advising as the process that is aimed at improving study skills to explore career options of the students. Furthermore, the process helps them in choosing educational programs in line with their academic abilities and strength to achieve their total potential.

In chapter two, the two models/ approaches of academic advising, namely; prescriptive and developmental approach, were discussed. O'Banion (1972) and Crookston (1972) turned to Student Development Theory to support their argument for a more humane and developmental model of academic advising that they believed would better serve and retain students. Developmental approach has become the prevalent approach to advising in post-secondary institutions nationwide. Gordon and Habley's (2000) study reveals that academic advising is a crucial component of a student's experience in higher education in the sense that dedicated and competent academic advisers help students find meaning in their lives. In addition, it helps students to make decisions, and successfully navigate their way through the higher education system towards graduation.

Higher education institutions should ensure that advisers are more helpful and caring in their work with students. They are to focus more on the needs and interests of the individual student and be more positive with students, rather than discouraging them. "Advisors are expected to share their knowledge of degree requirements, help students schedule their courses, and generally facilitate progress to degree in a timely manner" (Baker and Griffin, 2010: 2). The ultimate goal of an advisor and for the institution is to see students graduate. However, there is a long road that must be travelled in order to reach that goal. In addition, institutions are to encourage greater access to advisers, especially more walk-in hours, more evening hours, more hours for advising-by appointment, and greater opportunities for email and online advising.

A workshop conducted by Marques (2005) found the top five best practices for advising to be: 1) Advisors should be involved in and knowledgeable of the student's position and program. 2) Advisors should be attuned to the student's personal well-being in the learning environment. 3) Advisors should be available to the student in a multitude of ways (in person and by telephone, e-mail, and fax). 4) Advisors should be honest with adult learners. 5) Advisors should develop and maintain a peer-to-peer relationship with the adult learner.

The development of effective advising relationships rests upon a foundation of student satisfaction. If students are dissatisfied with advising, they are unlikely to view their academic advisors with warm regard; a factor which may compromise their ability to become integrated into campus life, develop mentoring relationships, or develop a sense of belonging within the institution. Student advising is the key to student improvement and empowerment, and is a necessary ingredient of the functioning of an institution.

5.3.2 Academic support and student satisfaction

The empirical results revealed that there is a significant positive relationship between academic support and students' satisfaction ($r = 0.78$; $p < 0.05$). Therefore, hypothesis two was not supported but rejected. Academic support constituted about 78% out of all factors affecting student satisfaction. The positive relationship implied that increase in academic support brought about increase in students' satisfaction. This also means that 78 percent of students strongly agreed that satisfaction with academic support impacted their decision to stay at the university.

The study also revealed that satisfaction with academic support differed in terms of the campus where the student was located and the source of funding received by the student. The study showed no difference in terms of gender and residential status. The study supported the view that development of students both academically and socially, while they are members of the campus community, is tantamount to the university's success. Astin (1968), the first researcher who wrote about the campus setting more than thirty years ago, postulated that individual achievement, behavior, self-esteem, and feelings of loneliness and alienation are often the result of a mismatch between the student and the environment. Tinto (1975) also argues more intensely that the individual and the institution must be compatible and integrable so as to produce a successful, supportive relationship. Murray (2014), one of the first South African authors to investigate the factors affecting graduation and dropout, found that residence and financial aid status were important determinants for both dropout and graduation.

A study by Androushchak et al. (2013) showed that the availability of academic support in the form of developmental education courses, tutoring, study groups and other programs such as supplemental instruction, is an important condition for students' continuation in the university. In most cases, academic support and development is provided by higher education institutions to address issues around student retention, progression and success. Student satisfaction with any form of academic support is very important because students are the primary stakeholders and beneficiaries of higher education, and their degree of satisfaction should be a concern of every institution.

The results from the present study confirm the results from previous studies which indicated that there was a positive relationship between academic support and student satisfaction(Androushchak, Poldin,and Yudkevich, 2013; Gale et al, 2010 and Hilsdon 2013) . The hypothesis that there is no relationship between student satisfaction and academic support was not supported. Academic support programmes aim to assist under-prepared students and students from poorly resourced senior secondary schools to cope with university academic work.

Students feel empowered and engaged with the institution when they develop supporting relationships. Higher education institutions are reminded that the student is on an academic journey and the institution's assistance is needed to help them arrive at their destination of a university degree (Middleton 2006). If the higher education system is to promote effective learning and prevent learning breakdown, it is essential that mechanisms, whose aim is to break down barriers to learning, be structured into the education system. Such mechanisms must promote the development of an effective learning and teaching environment (Nqadala, 2007:1). Institutions considering taking advantage of academic support for student success, must consider a staff-to-student ratio, much like the faculty-to-student ratio. McDonald (2013) found that, with faculty-to-student ratios, sometimes it is more about the quality of the interactions. Institutions are

therefore, supposed to ensure that there is enough support staff to engage and support students.

Previous research has found that students tend to under-utilize academic support services (Friedlander, 1980; Walter & Smith, 1990). At-risk students, in particular, have trouble recognizing that they are experiencing academic difficulty and are often reluctant to seek help, even if they do recognize their difficulty. To overcome these challenges, institutions should deliver academic support intrusively, by initiating contact with students and aggressively bringing support services to them, rather than offering services passively and hoping that students will come and take advantage of them on their own accord. Furthermore, institutional support should be delivered proactively, early in the first year of study, in order to intercept potential first-year attrition, rather than responding reactively to student difficulties after they occur. Students who earn good grades during their first term are far more likely to persist to graduation than first-term students who do not experience initial academic success (Seymour, 1993).

Considering the above findings, one can conclude that learning in higher education is a challenge for the majority of students. Students benefit from being supported to develop their confidence and skills to be effective learners in higher education.

5.3.3 Teaching approaches and student satisfaction

The results from chapter four show a significant positive relationship between teaching approaches and students' satisfaction ($r = 0.68$; $p < 0.05$). The results also indicate that, among all other possible factors that influence student satisfaction, teaching approaches explain 68% of student satisfaction. Therefore, hypothesis 3, that there is no relationship between student satisfaction and teaching approaches is not supported. This is a significant and positive finding because students reported being more satisfied with their experience if they had lecturers using teaching methods that suited learners' needs.

The results further showed that the demographic variables of gender, residential status and source of funding had no influence on satisfaction with teaching approaches. Campus showed a significant influence on satisfaction with teaching approaches. Based on the results, the campuses of the selected university were not the same. They differed greatly when it came to their size; and the type of the campus and curriculum choices such as a science emphasis, a more education based, or a technical based. Each of these factors helped in determining the university's characteristics, which in turn, played an integral role in terms of the impact on the student with, and within, the surrounding environment.

Depending on the institution type and size (for example, comparing Campus D which is very small with only one Faculty and Campus C a very big campus with six faculties), the classroom environment would be structured differently, and the student outcomes would also be of a different nature. The classroom serves as a springboard for new relationships that include the individual student as an integral part of the community at a college or university.

The findings were parallel to the view that quality of teaching and learning at the institutions of higher education was one of the things considered by students when entering university, since the quality of teaching and learning was one of the factors influencing students' satisfaction (Suarman, Aziz & Yasin 2013). Theall and Franklin's (2001) research indicated that students are the most qualified sources to report on the extent to which the learning experience was productive, informative, satisfying, or worthwhile. While opinions on these matters are not direct measures of instructor or course effectiveness, they are legitimate indicators of student satisfaction, and there is substantial research linking student satisfaction to effective teaching. The literature on teaching is crammed full of well researched ways that teachers can present content and skills that will enhance the opportunities for students to learn. It is equally filled with suggestions of what not to do in the classroom.

Students have a variety of quality programs to choose from, which allow students to have options as well as the potential of succeeding in subjects they prefer. Academic programs are not effective if they are not backed up by efficient teaching methods which would support students' comprehension, which in turn will most likely lead to their satisfaction. Many teaching methods are available in higher education that enhance learning processes and offer lecturers many options. Students respond differently to different teaching methods and have their own ways of demonstrating the knowledge acquired and absorbed. Research asserts that no single teaching strategy is effective all the time for all learners (Marzano, 2003 & Hattie 2009). The main reason is that teaching and learning are complex processes influenced by many different factors. Students need exposure to an appropriate mix of strategies.

Today the quality of education requires institutions of higher learning to pay attention to students' education as a main product that is expected from a quality education system. Attention to this task in higher education is considered a major one, so in their instruction, educators must pay attention to learners and learning approaches. In these two factors, the educators should move forward to attain new teaching approaches. In the traditional system, instruction was teacher-centered and the students' needs and interests were not considered. In such a cases the educators' instruction must change into a method in which student needs are considered (Shim, 2006).

Good affiliation with teachers on the part of learners, as well as on the part of teachers greatly affect the satisfaction level of students. Student-teacher relationship building is very important to create good academic experiences and more satisfaction (Ting, 2000). The more teachers are thoughtful towards delivering knowledge through the lectures, the more will be the satisfaction level of students.

To connect with students and impact their lives personally and professionally, teachers must be student-centered and demonstrate respect for their background, ideologies, beliefs, and learning styles. The best instructors use differentiated instruction, display

cultural sensitivity, accentuate open communication, offer positive feedback on the students' academic performance (Macsuga-Gage, Simonson & Briere, 2012), and foster student growth, by allowing them to resubmit assignments prior to assigning a grade (Lynch, 2008). A study by Hudson-Ross and McWhorter (1996), as cited in Ganyaupfu (2013), found that without new approaches to instruction that connect to the learning needs of students, many will perform poorly, and most likely drop out of studies.

According to Choi and Vries (2011), the most important role of teachers is planning and controlling the educational process for students to be able to achieve a comprehensive learning. Therefore, having a course plan and using appropriate educational strategies is crucial. Students identified language as one of the factors that impact on their level of satisfaction. Therefore metacognition training and self-assessment of students during teaching is required. Lecturers should; ensure that lessons are explained in plain language, give feedback to students, explain the causes and reasons of issues, and encourage creativity during teaching the lessons.

5.3.4 Assessment methods and student satisfaction

The study showed that there was a significant positive relationship between students' assessment techniques and students' satisfaction ($r = 0.73$; $p < 0.05$). Therefore, the hypothesis that there is no significant relationship between student assessment technique and student satisfaction is not supported. About 73 percent of students perceived that satisfaction with assessment techniques will influence their decisions to stay within the institution. The results further indicate that satisfaction with assessment techniques between the demographic variables of gender and source of funding differed except with campus and residential status. The result indicated that female students were more sensitive to efficient assessment techniques compared to male students.

A study by Grebennikov and Skainnes (2007) correspond well with these findings indicating that female students place greater importance on a majority of academic and non-academic aspects of their program than do male students. It is suggested that

female students make greater use of university services and value higher education more than male students.

Satisfaction with assessment techniques was reportedly influenced by the source of funding received by the students. The study showed that the self-financed student were more sensitive to assessment techniques, followed by scholarship students, then by NSFAS, personal loans and undisclosed form of funding. This is because assessment is the only means to determine the student performance and progress, and most funding aids are based on student progress. Therefore, the administration of financial aid to university students has been shown to facilitate student success (Cabrera, Nora, & Castañeda, 1992).

The above findings support the notion that assessment has a greater impact on student learning because it strongly influences the way students respond to their studies. Assessment signals to them what their lecturers regard as important and thus, what they should pay attention to. It acts as an incentive to study, and to study in particular ways. Boud and Falchikov (2007: 3) note that assessment has a powerful effect on what students do and how they do it; communicates to them what they can and cannot succeed in doing, and builds or undermines their confidence as learners on a course and in the future, in the world. Students are increasingly seen as more active players in assessment as part of the process of learning.

A research by Haladyna & Downing (2004) reveals that when students step from one term to the other, they become more dissatisfied with, remain cynical and suspicious about, assessment practices, increasingly viewing assessment procedures as unfair and a means to distribute reward and punishment. When assessment is done properly, it should enable students to engage in reflection as part of independent learning, providing them with both the confidence and emerging skills to react to the feedback provided to them, to monitor and improve their future performance.

Previous researchers emphasize the importance of assessment as means to diagnose learning difficulties. It helps the instructor to identify the learner's areas of strength and weakness so that he/she plans instruction to build on the one and remediate the other in formal and informal ways. Secondly, assessment provides feedback about success of a study program. Information from the assessment of student learning utilized in program evaluation (Nitko, 2004 & Pratt, 1998) help students to improve their learning. Student tasks need to be aligned with learning goals, they need to receive meaningful and timely feedback on their performance, as well as on targeted follow-up work.

The study supports the view by Black and Wiliam (1998) that assessment practice can be helpful if it provides information that instructors and students can use as feedback in their progress and in modifying the instructional process. Such assessment is also called 'assessment for learning' when the evidence from the assessment is used to adapt the teaching work to meet learning needs and difficulties. Assessment strongly influences how students respond to their studies. Assessment signals to them what their lecturers regard as important and thus, what they should pay attention to. It acts as an incentive to study and to study in particular ways. According to Boud and Falchikov (2007), assessment has a powerful effect on what students do and how they do it; communicates to them what they can and cannot succeed in doing, and can build or undermine their confidence. Biggs and Tang (2011a) emphasize the concept of 'constructive alignment' which is useful for reminding curriculum/course designers of the need for coherence between all the elements of the curriculum. The course purpose, outcomes, teaching methods, and assessment methods, should all be aligned to ensure that the desired learning is achieved.

Assessment of student learning is a fundamental function of higher education. It is the means by which institutions assure and express academic standards, and have a vital impact on student behaviour, staff time, university reputation, league tables, and most of all, students' future lives. Brown (2004:81) reports that while students can ignore teaching; they cannot afford to do away with assessment. This is because if they want to get a qualification, they have to participate in the assessment processes that are

designed and implemented. For this reason, it is important to have assessment guidelines to ensure that learning is facilitated and not hindered.

Driscoll & Cordero De Noriega (2006) outline the following assessment guidelines as important in assessing students: 1) define and clarify program goals and outcomes for long-term improvement, 2) make assessment-for-improvement a team effort, 3) embed assessment into campus conversations about learning, 4) use assessment to support diverse learning abilities and to understand conditions under which students learn best, 5) connect assessment processes to questions or concerns that program decision makers or internal stakeholders really care about, 6) make assessment protocols and results meaningful and available to internal and external stakeholders for feedback and ultimately improvement, and 7) design an assessment model that aligns with the institutional capacity to support it.

Suskie (2004) posits that good assessment practices must: give useful information; give students reasonably accurate, truthful information; be fair to all students; be ethical and protect the privacy and dignity of those involved; be systematized and cost-effective, yielding value that justifies the time and expense put into them.

5.3.5 Learning facilities and student satisfaction

Empirical results show that there is a significant positive relationship between availability of learning facilities and students' satisfaction ($r = 0.85$; $p < 0.05$). The positive relationship here implies that the more available the learning facilities, the higher the students' satisfaction and vice-versa. This means that learning facilities contributed 84% of all other factors affecting student satisfaction. Demographical variables of gender and campus significantly influenced the student satisfaction with learning facilities.

The results showed that females were more concerned or sensitive to learning facilities than male students. With regard to campuses, Campus C was the most sensitive campus followed by Campus A then Campus B and D. Considering these findings, the size of the campus in terms of the number of students in each campus, plays a vital role

in the student satisfaction from facilities. Given the proper resources, a small class size has the ability to jump-start the academic careers of students by creating a classroom environment that welcomes participation from all students, regardless of their interests.

Institutions of higher learning are obliged to promote a proper atmosphere for effective teaching and learning by harnessing the physical environment of the classroom. The physical environment is made up of desks, chairs, tables, space, instructional materials, lighting and ventilation, as well as the latest Information Communication Technology (ICT) equipment & library. For instance, in the classroom, enough desks, chairs, lockers, instructional aids, as well as ICT materials etc. must be provided to match the population ratio of not more than 1:30 students.

Learning facilities in this study refers to all objects and structures designed and created to serve a particular academic function, and to afford a particular convenience or service in teaching and learning (Gbadosami and DeJager, 2010). Learning facilities are one of the important elements that must be present to ensure that the students, who are legal clients of the institutions, are satisfied and have better academic services and better experiences. The current study confirm the findings by Gruber, Fub, Voss & Glaser-Zikuda (2010) that the relationship between learning facilities and student satisfaction cannot be easily separated.

The results from this study yield similar results from the study conducted by Zaheer, Butt and Rehman (2010), which indicated a strong significant relationship between learning facilities and student satisfaction. The study further confirm the finding by Salad (2014) that adequacy of teaching facilities significantly related to students' satisfaction. Similarly, Mansor, Hasanordin, Hafiz and Rashid's (2012) research in a university in Malaysia, found that the quality of academic resources significantly impacted on students' satisfaction perceptions.

Starting from the facility needs of the students such as writing and reading materials, to the teacher's need to carry out class activities, a lot of money should be spent on the

facilities required for quality learning. Lecture rooms are among the resources required in the realization of educational aims and objectives. Overcrowded facilities and consequent deterioration in in-door air quality, poorly maintained lecture and library buildings susceptible to weather hazards, and inadequate teaching and learning resources, are likely to impact negatively on student achievement and academic staff motivation. Facilities management is therefore, a necessity to ensure that buildings and other technical systems support the operations of an organization (Fenker, 2004). The extent to which learning facilities affect students' satisfaction depends on the commitment of the universities to ensure that the resources are sufficient and effective.

The study looked at teaching and learning facilities from the perception of the student, and whether these facilities had an impact on student decision to drop out. In this study learning facilities include lecture facilities, laboratory facilities, library service, and access to Information and Communication Technology (ICT). The results showed that students appreciated the provision of adequate laboratory equipment, lecture rooms, and other physical evidences of the university. The researcher concluded that the universities did not have adequate teaching facilities, the library service environment was constrained by library facilities that did not match students' enrollment, and inadequate textbooks to support teaching and learning. Universities have to align the admission of students to available physical facilities and accommodation.

5.3.6 Student funding services and student satisfaction

The results showed a significant positive relationship between students' funding and students' satisfaction ($r = 0.80$; $p < 0.05$). Therefore, hypothesis 6 is not supported. The positive relationship here implies that the more funds are available to students, the better the students' satisfaction. The results further indicate that satisfaction with funding services between the demographical variables of gender, campus and funding services differed. Gender shows that females were more sensitive to funding services than male students. The above findings were parallel to the literature review by Grebennikov and Skaines (2009) which showed that, firstly, female students place

greater importance on the majority of university services than do male students. Secondly, females appeared more demanding about the quality of services, while male students remained comparatively tolerant.

Source of funding had a significant influence on student satisfaction, where the students on scholarship are more sensitive followed by self-financed, NSFAS then parent/relative and personal loans. Scholarships in literature review chapter has been defined as the university-funded grants that are distributed based on merit rather than need (Carpenter, 2013). The study supports Goldrick-Rab and Douglas' (2010) conclusion that scholarships and need-based grants are beneficial for promoting persistence in community college. The results from the study show that the majority of students depended on financial aid (NSFAS) in order to attend the university. One can infer that the students' chance of being retained from the first to second year was related to the financial aid package the student received. This called for financial aid services for needy students, primarily NSFAS loans and other bursaries, scholarships and merit awards.

Campus had a significance influence on student satisfaction with funding services where Campus C was most concerned, followed by Campus A, then Campus D and Campus B. The results showed that the majority of students strongly noted that satisfaction with funding services impacted students' decision to stay within the institution. The study supports the finding by Scott, Yeld and Hendry (2007) that financial problems were a significant factor that affected student satisfaction leading to high drop-out rates.

5.3.7 Student accommodation/residence and student satisfaction

The empirical findings indicated a significant positive relationship between students' accommodation and students' satisfaction ($r = 0.82$; $p < 0.05$). Therefore, hypothesis 7 was rejected. These findings implied that the better the students' accommodation, the higher the students' satisfaction and vice-versa. Demographical findings revealed that

gender, campus, residential status, and source of funding significantly influenced student satisfaction with accommodation services.

Students perceived accommodation as important because it enhanced the students' connection to their campus, increased their involvement in learning and engagement, and contributed to their academic success and persistence to graduation. A study by De Araujo and Murray (2010) found empirical evidence that living on campus led to improved student performance, finding both immediate effects (GPA improves while the student lives on campus) and permanent effects (GPA remains higher even after moving off campus). Other researchers, Araujo, (2010); Burggraaf, (1997); Christie, et al., (2002); Khozaei, Ramayah & Hassana (2012); and Skahill, (2003) as cited by Radder and Han (2009) maintained that students who reside on-campus generally perform better than those who do not; are better able to develop their social and personal planning and organizing skills; and are more likely to persist in their studies and attain personal and academic goals.

Institutional managers have to recognize that having attractive residence facilities assist in the recruitment and retention of the best and brightest students. Institutions have to constantly build bigger and better halls, with more attractive amenities and conveniences to ensure they remain ahead in a highly-competitive higher education market. Riker and DeCoster (2008) asserted two foundational premises that established the connection between the educational mission of the institution and residence life. First, is that learning is a total process, and the second is that environment influences behavior. Therefore, educational effectiveness is dependent upon the normal healthy functioning of the student outside, as well as within, the classroom.

If implemented correctly, residence fosters a sense of community and builds lifelong connections. The quality of such accommodation and its environment are imperative in facilitating student learning and well-being. Student residence has been identified by the South African Council on Higher Education as relating to student persistence and success. The residence culture and resultant degree of social integration of students

are seen as important factors, either promoting or hindering academic success (CHE 2010:108).

Institutions of higher learning should use student affairs and services department; first, provide safe, comfortable, well-maintained and supportive on-campus accommodation for students. Second, integrate student accommodation goals with those of the academic programme of the institution. Third, provide students with technology infrastructure and assistance. Fourth, create opportunities for students to get involved in leadership and governance opportunities in residence life, organizations and activities. Fifth, develop a code of conduct expectations for students and for faculty/staff in relation to on-campus living. Sixth, to form student governing boards that will plan/organize programming in the residence halls and advocate for student living area interests. Last, to foster a residential environment in which all members promote respect and hold each other accountable for their actions.

The results of the study showed that students were more concerned about residence that can give them some time to study, where alcohol is prohibited and not away from the campus. Student affairs is therefore, responsible for taking care of a student life during his time at the university.

5.3.8 Administrative services and student satisfaction

The results showed that there was a significant positive relationship between students' administrative services and students' satisfaction ($r = 0.80$; $p < 0.05$). Therefore, hypothesis 8 was rejected. The positive relationship here implied that the better the administrative services students enjoyed, the better the students' satisfaction and vice-versa. The results further indicated that satisfaction with administration services between the demographic variables of gender and campus differed. The results indicate that female students were more sensitive to administrative services compared to male students.

The results showed that the majority of students strongly perceived that satisfaction with administration services impacted the students' decision to stay within the institution. In many instances, when it came to service delivery, variances existed between students' perceptions of the same characteristics. For example, one student considered the range of services provided by administrative staff to be extremely important, whereas another student considered the same characteristic to be relatively unimportant. Sultan and Wong (2010) provide evidence to support this view, stating that service quality should be seen as a contextual issue since its dimensions vary widely.

Administration forms the biggest part of support services, and is directly linked to service delivery. From the results, it was clear that student retention focused, not only on the education side of the students' experience but also on non-academic side. Student perceptions of the service quality they received in non-academic transactions also affected retention. According to Plank and Chiagouris (1997), students' perceptions of services were likely to impact students' choice of continued enrollment at a given institution. This is in line with Tinto's (1993) argument that the financial situation of the student is likely to affect their decision to leave college. The study supports the findings by Astin & Oseguera (2005), Yorke (1999), Davies & Elias (2003) where financial concerns were commonly cited as an important reason students give for their departure from college, leading to non-completion of their studies. Langbein and Snider (1999) found that more financial aid significantly increases the probability that a student will remain within college.

The increasing competition among higher education institutions to attract highly qualified students toward achieving high academic profiles forces them to pay more attention to service quality issues. In chapter two, it was mentioned that education institutions consist of an academic and non-academic function. The latter can also be referred to as support services. "Support service is an extension of student experience and serves as a platform for personal growth and development" (Roland, 2009:21). According to Schreiber (2013: 617), "fundamentally, student services aim to provide

support, services and development to students, while engaging with academic and administrative staff on issues of policy and practice". Although, according to Pascarella et al. (2005), student services concentrate on various intra- and inter-personal aspects of students' lives, they can help determine the degree to which students are embedded in the higher education institutions.

Considering the above results, the university has to develop a clear student administration cycle which comprises four stages, namely; enquiries, admissions, enrolment and candidature management (Student Management Services Review Report, 2010). The following processes characterise student administration in relation to four elements as discussed below.

- Initial Contact. These activities include initial contact, publications, course information, school career events and other targeted information sessions.
- Applications and Offers Process: These activities include managing; the application, assessment and offer process, letters of offer, general enquiries and advice on pathway options and admission schemes.
- Admissions and Enrolments: The function includes pre-enrolment orientation, academic advising through to study and support information. In addition, assessing credit for previous studies, the formal admission process, student fees, student campus cards and other administrative matters are included in this function.
- Candidature Management. Supporting students through their candidature includes such activities as degree transfers, withdrawals, advising on degree rules and policy, scholarship administration and candidate support, exam operations and administration, ongoing support ensuring student enrolment is correct, provision of transcripts through to assessment of course completions and on to graduations.

The whole process will ensure that services are accessible, consistent, simple, agile, responsive and transparent; resulting in student satisfaction. To best meet the needs of

the student as a customer, institutions of higher education must manage the quality of the product they provide centered on those functions associated with service and those associated with education (Sultan & Wong, 2010).

5.4 SUMMARY

In this study, it emerged from the empirical findings that students' decision to stay within the university was dependent upon institutional factors of academic advising, academic support, teaching approaches, assessment techniques, learning facilities, funding services, accommodation services and administration services. These factors are complex issues which should be handled by the institution. Students spend most of their time in the university environment which means that faculty members and administrators have become an important role-player to assist students with their academic and non-academic problems. Based on the research findings discussed in this chapter, recommendations are presented in the next chapter.

CHAPTER SIX

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

6.1 INTRODUCTION

In the previous chapter, data was discussed based on results from structured questionnaires from four campuses of the selected institution. The results obtained from the survey allowed the researcher to establish a detailed and comprehensive picture of student satisfaction with institutional factors in higher education institutions. This chapter summarises the findings and provides conclusions for the study. Additionally, the chapter presents recommendations that the selected comprehensive university could implement to improve student satisfaction. The limitations of this study are also documented in this chapter, and recommendations for further research provided.

6.2 RESTATING OF RESEARCH PROBLEM

A great deal of research has attempted to measure the needs and expectations of college students, but a limited amount of research has focused on factors that lead to student satisfaction that transcends into retention (Chapman & Pascarella, 1983; Tinto, 1987). The purpose of this study was to assess the between students' satisfaction and institutional factors of the selected comprehensive university in the Eastern Cape Province of South Africa. The institutional factors were academic advising, academic support, teaching approaches, assessment techniques, learning facilities, student funding services, student accommodation, and administrative services.

Universities need to work very hard to attract and retain students and they consider the quality of the service they give as a key element. Not attracting or satisfying students could have adverse effects on student enrolment and retention, funding, job security and the viability of a university (Low 2000). The voices and views of students are becoming ever more important, and responding to their needs and requirements has

never been so critical for university management. The role of students in their own satisfaction has become inevitable. The study was designed to assess student satisfaction with institutional factors that affect student retention in one comprehensive institution of higher education in the Eastern Cape. The discussions are based on student views about the extent to which their level of satisfaction with institutional factors contributed to their decision to stay at the university. The researcher's intention was to determine whether student satisfaction was predictive of student retention. The study succeeded in answering the two research questions.

6.3 SUMMARY OF THE STUDY

This section provides a summary of the research findings, specifically concentrating on the research questions and the formulated hypotheses.

6.3.1 Research questions

The findings revealed that institutional factors contributed 63% to students' experiences of satisfaction and the contribution was significant. All the institutional factors had significant relative contributions to the students' satisfaction. The factors' perceived contributions, arranged from highest to lowest were: learning facilities, academic advising, students' accommodation, students' administrative services, academic support, students' funding, teaching approach, and students' assessment.

Student satisfaction with the college experience is a key factor in persistence, as students who are satisfied with their experiences on campus tend to persist to graduation (Kuh, Kinzie, Buckley, Bridges, & Hayek, 2006; Kuh, Kinzie, Schuh, Whitt, & Associates, 2005; Suhre, Jansen, & Harskamp, 2007). While there are different dimensions that influence student satisfaction with an institution, the findings suggest that student satisfaction with the selected institutional factors is an important factor that influences their overall satisfaction level. Therefore, improving academic support to students is needed to enhance the institution's ability to recruit and retain students. The institution can use results obtained by the study to develop programs and services

specifically designed to meet students' needs, create a better fit, and in turn increase the satisfaction and persistence of their students.

6.3.2 Research hypothesis1: Academic advising

Overall, findings showed a significant relationship between academic advising and student satisfaction. Students believed that being advised about the requirements of the programme and selecting programmes in line with their interests, academic abilities and career aspirations significantly impacted their level of satisfaction. Students further believed that having academic advisors always available to them to define academic goals and assist them in developing their educational plans and to understand the university procedures and policies, influenced their level of satisfaction.

The results further showed that a demographic variable of source of funding significantly influenced satisfaction with academic advising where students on scholarship were more concerned about satisfaction with academic advising , followed by self-financed students, then NSFAS students followed by those on personal loan, and those with undisclosed source of funding, with those on parents/relative funding having the lowest mean score. Students strongly agreed that satisfaction with academic advising influenced their decision to stay in the university.

6.3.3 Research hypothesis 2: Academic support and student satisfaction

The results showed a significant relationship between academic support and student satisfaction. Students believed that being assisted in different skills (academic writing, study, examination preparation, and time management skills) influenced their satisfaction levels. Students further believed that having a system to detect their academic performance on time, and an opportunity to attend tutorials to complement lectures increased the level of student satisfaction. Having lecturers available for consultation, and being given an opportunity to participate in study groups and peer programmes were viewed as important for student satisfaction.

The results of the study also showed that demographical variables influenced the level of satisfaction with academic support. Demographical variables of campus and source of funding revealed a significant influence on academic support while gender and residential status did not have an effect. Students strongly agreed that satisfaction with academic support influenced their decision to stay in the university.

6.3.4 Research hypothesis 3: Teaching approaches and student satisfaction

The results showed a significant relationship between teaching approaches and student satisfaction. Students perceived that having lectures using teaching methods that suited their needs, who were punctual for classes, who always attended scheduled classes, prepared for lectures and simplified the content for students, influenced the level of student satisfaction. The use of technology and social networks to communicate with students increased the level of student satisfaction.

The study further showed that the demographic variables of the campus influenced the level of satisfaction with teaching approaches while gender, residential status and source of funding showed no influence. Students agreed that satisfaction with academic support influenced their decision to stay in the university.

6.3.5 Research hypothesis 4: Assessment techniques and student satisfaction

The study revealed that there was a significant positive relationship between students' assessment techniques and students' satisfaction. The students believed that fair assessment, and use of clear assessment guidelines and techniques influenced the satisfaction levels. Students also believed that understanding terminology, learning outcomes set out in the learner's guide, and remembering information easily, impacted the level of student satisfaction.

The results of the study also showed that demographical variables influenced the level of satisfaction with assessment techniques. Demographical variables of gender and

source of funding revealed a significant influence on satisfaction with assessment techniques while campus and residential status did not have an effect. Students agreed that satisfaction with assessment techniques influenced their decision to stay in the university.

6.3.6 Research hypothesis 5: Learning facilities and student satisfaction

The study revealed that there was a significant positive relationship between students' learning facilities and students' satisfaction. Students were of the view that having classrooms that are not overcrowded, properly maintained with enough teaching and learning material and furniture, influenced their level of satisfaction. Students further noted that having textbooks available on time, and being able to use the library at any time impacted on their level of satisfaction.

The results of the study also showed that demographical variables influenced the level of satisfaction with learning facilities. Demographical variables of gender and campus revealed a significant influence on satisfaction with learning facilities while residential status and source of funding did not have an effect. Students strongly agreed that satisfaction with learning facilities influenced their decision to stay in the university.

6.3.7 Research hypothesis 6: Funding services and student satisfaction

The results showed a significant relationship between funding services and student satisfaction. Students believed that having enough money for accommodation, food, textbooks, transport and stationery influenced their level of satisfaction. They also believed that having access to bursaries and loans influenced the level of satisfaction. The study also found that demographical variables of campus and source of funding influenced the student satisfaction with funding services, while gender and residential status showed no effect. Therefore, satisfaction with funding services impacted the students' decision to stay within the university.

6.3.8 Research hypothesis 7: Student accommodation

The results showed a significant relationship between student accommodation services and student satisfaction. Students revealed that having accommodation that is affordable, safe, and not far from the university encouraged study groups and the use of infrastructure and technology, and consequently influenced their level of satisfaction.

The results of the study also showed that demographical variables influenced the level of satisfaction with student accommodation. Demographical variables of gender, campus, residential status and source of funding significantly influenced satisfaction with student accommodation. Students agreed that satisfaction with accommodation influenced their decision to stay in the university.

6.3.9 Research hypothesis 8: Student administrative services

The results showed a significant relationship between administrative services and student satisfaction. Students believed that having administrators who; were approachable, attended to their needs, assisted them with administrative procedures and policies, influenced the level of satisfaction. Students further believed that being informed of all academic responsibilities and services available on campus influenced their level of satisfaction.

The results of the study also showed that demographical variables influenced the level of satisfaction with administrative services. Demographical variables of gender, campus and source of funding revealed a significant influence on satisfaction with administrative services, while residential status did not have an effect.

6.4 CONCLUSIONS OF THE STUDY

Conclusions of this study are based on answers to the two research questions as shown below.

6.4.1 What is the composite contribution of all the institutional factors on student satisfaction?

The study revealed that all the selected institutional factors significantly related to student satisfaction. This relationship is manifest in that the institutional factors accounted for 63.1% of the total variance in students' satisfaction (Adjusted $R^2 = 0.631$). The study showed that students needed to be assisted academically and non-academically by making them understand the institution's academic and support programmes in order to develop their own academic plan.

The study further noted that the selected institutional factors were, not only important to the institution, but also crucial to the students. The more the contact a student had with the university staff member, be it at faculty or a departmental level, be it an academic or non-academic staff member; the more likely the student was to be satisfied and persist until graduation. Although literature has shown that institutions of higher learning are faced with challenges of limited resources and financial constraints, they are forced to identify strategies and organizational structures that facilitate student satisfaction and ultimately student retention.

6.4.2 Which of the institutional factors has a significant relative contribution on student satisfaction?

The study revealed the contributions of individual institutional factors to students' satisfaction. It was shown statistically that learning facilities contributed significantly to students' satisfaction; followed by academic advising, then students accommodation, then students' administrative services, then academic , then students funding, then teaching approach, and the factor that contributed least significantly was students' assessment.

In response to the above question, learning facilities, academic support, student accommodation and administrative services, were viewed as the most important aspects that enhanced student satisfaction in the selected institution. These factors represented several facets of the students' experience such as the classroom condition, overcrowding, the academic advising programs, advisors' and counselors' knowledge

and competence, the registration process, approachability administrative staff, and student's personal concern for students exposed to these services.

The study noted that the level of satisfaction within the selected institutional factors was also influenced by the demographic variables of gender, campus, residential status and source of funding. Satisfaction with learning facilities was relative to gender and campus. Female students were more concerned about the learning facilities available within the institution than male students. All four campuses showed their level of concern with learning facilities. Health Sciences, Sociology and Law, and Natural sciences students from campus C were more concerned about learning facilities, followed by Engineering and Technology and Business Sciences students in Campus A, followed by Education, Finance and Management sciences in Campus B and D.

Academic advising was relative to source of funding only. Students on scholarships were more concerned about academic advising, followed by self-financed students, followed by students on NSFAS, followed by those on personal loan, followed by those with undisclosed source of funding, and lastly those on parents/relative funding who had the lowest mean score.

6.5 RECOMMENDATIONS EMANATING FROM THE STUDY

Based on both the literature review and the findings of this study, the researcher makes the following recommendations with regard to the selected institutional factors:

6.5.1 Academic Advising

The result of the study showed that student advising system has emerged into one of the key ingredients of a modern education system. This calls for higher education institutions to have a clearly defined advising policy framed within a clearly worded statement. A written statement of advising policy is required because advising has proven to be effective. In the current study, academic advising was rated as the second most important factor in ensuring student satisfaction. According to Winston and Sandor (2002), a properly defined advising system would provide a systematic process of student-advisor relationship aimed at achieving educational, career and personal goals

of the students. Advising systems play an important role, not only in the student development process, but also in student retention.

The university needs to hire four professional advisors to provide advice to targeted student groups on each campus. They are also expected to work with undecided students and students transitioning between majors as well. It is also recommended that the university designate a faculty member as the advising representative and each department have its advising representative. These members should be responsible for coordinating the responsibilities of major advising within the department and to serve as a resource to the other faculty advisors. The professional advisors will work with the designated advising coordinators to plan and implement faculty training and build in systems of evaluation, recognition, and reward for academic advising. These individuals would make up a functional Advising Council, which would be responsible for determining advising policies and practices for the university, and for creating a mission statement for academic advising at the selected university. Lastly, it is recommended that the professional advisors and director from CLT work with the International Student Office and the Admissions and Registrars' Offices, to develop an improved initial advising/registration experience for students.

Management of the institutions should emphasize creating a better advising system for the benefit of the student. Some of the immediate aspects to look into include providing training on advising, creating a 'feel good' environment for the students, and supporting the students during the crucial times such as registration and choice of new courses.

6.5.2 Academic Support

The results showed that 78% of students perceived that satisfaction with academic support influence their decision to stay at the university. It is noted that the university has comprehensive and effective academic and student support services that fall under the Centre for Learning and Teaching. The centre offers workshops and seminars to develop and support students and academics. Students are to be made aware of these services and how to access them.

The university has to focus on early intervention for students at risk. If a student starts to struggle, make sure that they get support right away, because early intervention is crucial to successful intervention. Explore a variety of support mechanisms, including extra tutoring after lectures. This calls for academics to identify students at risk and refer them to the resources and support that exist within the university as early as possible. Both students' effort and institutional effort are required to promote students' success. The effectiveness of the support programmes should be individually evaluated. An example would be to evaluate the effectiveness of a PAL Programmes.

6.5.3 Teaching approaches

The study revealed that 68% of students perceived that satisfaction with teaching approaches impacted their decisions to stay. Lecturing staff should improve their awareness of student development needs and barriers to learning, through engaging in ongoing professional development of their teaching practice through workshops and opportunities provided by CLT. More importantly is for lecturers to use teaching approaches and actions that lead directly to the enhancement of student learning. The personal attributes of a lecturer must be such that it improves the interaction between the student and a lecturer. The university is encouraged to use teaching approaches that connect to the learning needs of students. Research evidence from previous studies indicates that a student-centered learning environment produces higher-level learning outcomes more than a traditional teacher-centered environment.

Teachers are encouraged to act as coaches who guide students in their learning process and challenge their students to become 'active learners'. The finding revealed that the more teachers were thoughtful towards delivering knowledge through the lectures, the more the satisfaction level of students.

6.5.4 Assessment Techniques

Good assessment techniques require that lecturers and students agree on a criteria against which to make judgements that are both reliable and valid. The process of designing criteria can contribute to ensuring that there is clear alignment between course purpose and the outcomes that are envisaged for students doing a course. The university requires a more comprehensive and robust approach. The BEAR (Berkeley Evaluation and Assessment Research) system is recommended for the selected university. The system is useful in large classes. It is a comprehensive, integrated system for assessing, interpreting, monitoring, and responding to student performance (Wilson & Scalise 2006). The BEAR system provides a set of tools for lecturers and students to:

- reliably assess performance on central concepts and skills in curriculum,
- set standards of performance,
- validly track progress over the year on central concepts, and
- provide mechanisms for feedback and follow-up.

Although the key concepts and principles related to assessment can be applied to all disciplines, there is no 'one-size-fits-all' way of assessing students' learning. Each lecturer has to decide what is most important about their discipline for each course, and design assessment approaches and tasks which will best enable them to measure their students' learning. In addition, lecturers should consider ways in which assessment will further develop their students' learning and understanding of disciplinary ways of creating knowledge and representing that knowledge (in written, oral and visual forms).

6.5.5 Learning Facilities

The results show that learning facilities are the most important measure of student satisfaction level. Therefore, all aspects relating to learning and teaching facilities, especially library facilities and the availability of computers, are regarded as relatively important to ensure student satisfaction. The more the amount of these facilities and services, the more will the level of satisfaction of students be. Furthermore, it is

necessary to design classrooms in such a way that technology may be used effectively. Classrooms should be equipped with modern technologies to ensure favorable and conducive atmosphere for teaching and learning processes.

The findings indicate that the efficiency of any education institution is linked to the physical environment in which it operates, and that the environment can be improved to increase efficiency that may lead to a higher levels of satisfaction. The study revealed that 84 percent of students rated learning facilities as the most important factor which influenced their decision to stay.

6.5.6 Funding services

The literature review in chapter two also emphasizes that the prime and most obvious reasons for students' early withdrawal from higher education programmes are financial difficulties. Universities are encouraged to have a financial aid policy to ensure that academically capable students are able to earn a college degree independent of financial considerations (Carpenter, 2013). The financial aid services is to manage and administer financial assistance for needy students, primarily NSFAS loans and other bursaries, scholarships and merit awards.

6.5.7 Student accommodation

The results of the study showed that 82% of students perceived that satisfaction with student accommodation impact their decisions to stay. Furthermore, this factor was rated as the third most important factor by the students. A calm and serene residence environment is very important for high student satisfaction, in addition to well-maintained and clean residences. The researcher proffers the following recommendations for the selected institution:

Firstly, the staff members in charge of accommodation need to have the requisite training to manage their responsibilities, resulting in students being always provided

with the best environments, on- or off-campus, in which they are able to learn and socialize. The university should have policy and strategy related to student accommodation in order to support staff members responsible for student accommodation services.

Secondly, creativity, innovation and comprehensive due diligence are required to ensure that any student accommodation model is financially sustainable, adheres to appropriate building quality standards, and also enhances access, equity and redress. Thirdly, the establishment of effective and efficient residence leadership, management and administrative structures and procedures are recommended. Accommodation without effective leadership, management and administrative structures, programmes, codes and interventions which facilitate and provide supportive learning environments, actually constitute barriers to student learning and success. Lastly, Sound residence management and leadership structures are essential for the establishment and provision of learning environments capable of overcoming exclusionary and discriminatory discourses and practices and promoting social justice and cooperation. Residences must be viewed as the best places both for socializing and interacting with peers from a variety of backgrounds and cultures, and for sustaining, developing and sharing academic skills and experiences.

6.5.8 Student administrative services

The findings showed that the quality of administrative services provided to students was important. Treating students and their families with dignity and respect is a basic human necessity and right. The administrative executives and managers of the higher education institutions should pay attention to developing their educational institutions in the light of various dimensions of students' quality perception. They should comply with all the necessities, standards and requirements of quality education needed by their students. The reliability of services being offered and the empathy of the administrative staff are significant factors in quality perception. The way the staff communicates with students and their actions should be empathetic. As noted by Demetriou (2008) and

Owen (2010), universities should use the following tips to provide quality service to student:

- Give students clear directions on how to solve their problems and issues.
- Give students a campus map and directions. Students are at college to study and learn, not go on a wild goose chase all over campus trying to find the answers to simple questions.
- Be responsive to students and their parents. Being true to your word means a lot to students and their families.
- Give timely answers to students' questions and regular feedback on their progress.

In addition, the university should adopt a customer Relationship Management (CRM) as discussed in chapter two, as a way of establishing and maintaining the relationship between the student and the higher education institution. These principles can help institutions of higher learning to retain and graduate their students.

6.5.9 Measures to enhance student Satisfaction in Higher Education

The study was guided by several theories of student retention developed by researchers to identify and analyze the factors affecting student satisfaction and retention. The majority of these were derived from US higher education system. It is against this background, that the researcher proposes a framework to assist in enhancing student satisfaction in higher education in South Africa. The design of this framework was heavily influenced by the insights gained from reviewed literature and findings from the data analyzed.

This framework consists of eight interrelated institutional factors which are meant to assist students from the pre-enrolment stage up to the point where the student graduates and leaves the institution. These factors provide a strong relationship between a student and the university staff members (advisors, admin staff, lecturers) in

such a way that the students are able to achieve their full potential. Pre-enrolment factors such as the accuracy of information pertaining to financial services, accommodation service and admissions and registration, impact on student satisfaction. During the period of study, the institutional factors of learning facilities, teaching approaches, assessment techniques and academic support influenced student satisfaction. Refer figure 6.1 below

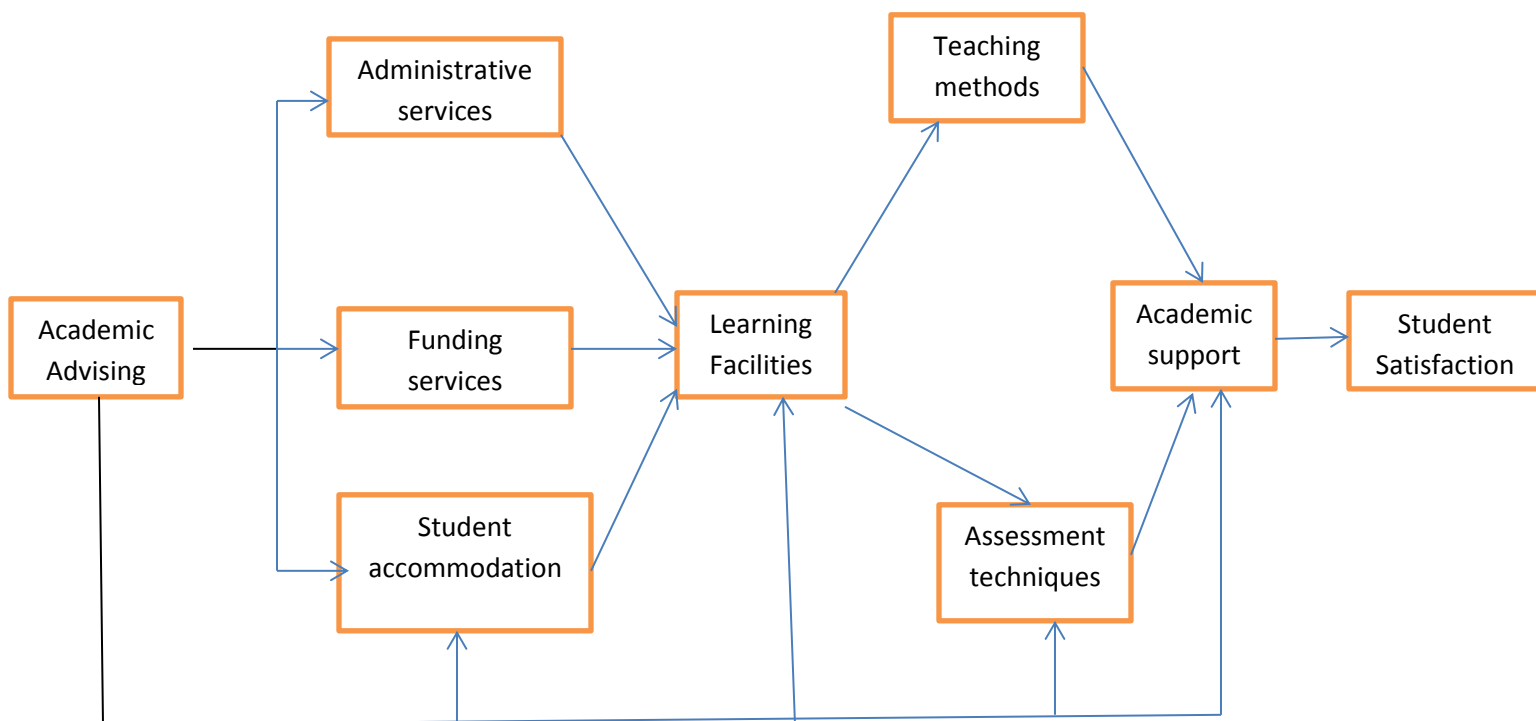


Figure 6-1: Proposed Stofile Framework for Enhanced Student Satisfaction in Higher Education

The framework is intended to provide the university with viable and sustainable strategies in the promotion of student satisfaction and retention. Implementation of this framework will encourage and strengthen the relationship between students and advisors from the pre-entry phase to graduation phase. It is assumed that the use of this framework will assist students to receive the most comprehensive package of services available that can afford them the opportunity to adjust quickly to university life and increase their chances of academic success.

The framework proposes that institutions can gain student satisfaction through delivery of excellent service which is important for securing a sustainable competitive advantage in the educational market. The proposed framework provides a frequent, comprehensive, consistent measure of students' perceptions which will help the institution in facilitating the kind of educational environment satisfying to all students. This proposed framework will help the institution to examine how they are assisting students with locating information regarding financial aid, providing access to potential resources of financial assistance, communicating financial outcomes; and the potential impact these procedures have on students' decision-making. Students will be also assisted in quickly finding information about accommodation and admission and registration procedures and policies. Advising structures would be better placed to serve the interest of students.

Advisors and administrators have to recognize that having attractive residence facilities assists in the recruitment and retention of the best and brightest students. Institutions have to constantly build bigger and better halls, with more attractive amenities and conveniences to ensure they remain ahead in a highly-competitive higher education market. Managers are also to note that residential satisfaction, which stems from high-quality facilities, positive roommate relationships, strong floor communities, and quiet study environments, is the positive experience expressed by occupants when their residence meets their expectations for unit features, housing services and neighborhood facilities.

Implementation of the framework requires the institution to employ professional faculty advisors for each campus, to work closely with the admissions and registra's office, CLT departments and academic departments. A priority should be placed on opportunities to have faculty members serve as advisors for students, and policies should be put in place to build one-on-one interactions between the advisor and student on a regular basis throughout the school year until the student graduates. Faculty advisors are also expected to increase communication with departmental lecturers in order to gain

faculty's understanding of students' unique needs and act accordingly. This will help students to meet expectations and promote faculty satisfaction with student performance and success.

Academic advisors will also have to interact with academic departments where they will have to meet with individual lectures and students. Students expect to be treated as individuals and to feel that the institution is concerned about their individual interests. This can be addressed through positive interactions between campus personnel and students, as well as through policies that are focused on serving the student. The results indicated that students prefer lecturers who are professional, caring, flexible and trustworthy. The framework proposes that lecturers work together with advisors to build lecturer-student and advisor-student relationship. This process is likely to enhance student sense of belonging to the university, especially in the first years, as they will feel protected, important and valued. When lecturers are aware and understand their students, they enjoy greater flexibility in terms of applying different teaching approaches and assessment techniques that are appropriate to students' needs.

This then means that for the above framework to be efficiently and successfully implemented, institutional managers, together with the heads of departments, deans, and curriculum developers, should be proactive by ensuring that university lecturers are trained on the design and handling of teaching and assessment activities in ways that do not compromise on quality. Assessment, properly done, helps the students and lecturers gauge the level of mastery of the expected material before summative assessment, thereby giving sufficient room for interventions to be made when the need arises. Furthermore, the university should be proactive and have newly appointed lecturers attend modules on assessment and university teaching during their probation year.

The framework further proposes that the facility managers work closely with academic advisors at departmental level as they are the ones who know what the students and lecturers need in order to facilitate the learning process. Top management have to

encourage management and maintenance of proper environment for teaching and learning. Overcrowded, uncomfortable, unfavourable conditions have a negative impact on both the student and the lecturer.

Finally, the advising programme leaders must be positioned and empowered within the administrative structure, to accomplish the mission of the advising programme. The institution is also expected to offer workshops and training to advisors for them to know exactly what their job entails, and work towards the achievement of the university goal; which is student satisfaction.

6.6 LIMITATIONS

This study had some limitations that must be taken into consideration. First, this study followed a quantitative approach which calls for the researcher's expertise in SPSS for data analysis and interpretation which might have been heavy for the bearer in the current study. Second, this study focused only on student satisfaction levels among the third year students and therefore, satisfaction in the previous year was not assessed. Third, the study followed a quantitative approach, meaning that an in-depth, qualitative research would help to better understand the nature of these factors on student experiences. Fourth, although the study sample used was large enough to assess student satisfaction, the study did not compare the satisfaction of those who dropped out with that of those who persisted with their studies.

This study was also limited by the fact that it involved only one comprehensive university in the Eastern Cape Province. This makes it difficult to generalize to other forms of universities even though in the same province or other provinces. There might be numerous other factors that may influence the student satisfaction such as extracurricular factors, expectations, social, health, sportive activities or transportation services and demographic characteristics, which include socio-economic status, race and religion. Research that investigates these relationships and factors should add more value to the current knowledge on student satisfaction in higher education

Above all the highlighted limitations, the researcher hopes that the results of this study adequately answered the research questions and hypotheses as outlined in chapter 1.

6.7 RECOMMENDATIONS FOR FUTURE RESEARCH

This study aimed at assessing the level of student satisfaction with institutional factors that affect student retention in one comprehensive university of the Eastern Cape in South Africa. Based on the findings and limitations of the study, further research could include similar studies in other institutions, which will include other comprehensive universities, universities of Technologies, and Further Education Training (FET) facilities, for both public and private institutions, in order to find out whether these findings will be equally hold true.

While the overall results of the study indicate student satisfaction with institutional factors, it would be beneficial to replicate this study with a larger sample where students from different study levels will be considered. This means the study could be replicated with another sample at the same university in order to confirm the findings of this current study. Although quantitative data provided the researcher with a basis to formulate general ideas about institutional factors that students feel are important, qualitative research regarding student satisfaction would add to the existing results by providing more profound insights and from a different perspective. Longitudinal research on student satisfaction is required, beginning with students who are in the transitional phase between secondary and postsecondary educational work and continuing through students' university experiences. Longitudinal research would be beneficial in showing which factors, including kinds of relationships, more significantly affect university students in their transition into college life, and which factors have more lasting effects on overall student satisfaction with their education.

Last but not least, future researchers could add more variables in the same model in order to offer a more comprehensive model to the universities for satisfying students as

customers. The current study focused on one group of students, those who continued and about to finish. Future research may require that students be divided into two groups - those who dropped out and those who continued. To get a more comprehensive picture of the factors related to student dropout and retention, cohort studies should be used in future. Studying a few cohorts over a three-to five-year period will provide indications of similar trends in different cohorts, which would make it possible to generalize the findings obtained.

6.8 SUMMARY

This final chapter of the study gave a presentation of the summary of findings, conclusions of the study, recommendations which included a proposed framework for student satisfaction in higher education institutions. The study purpose was to assess student satisfaction with institutional factors affecting student retention in higher education.

Assessing and identifying what students assigned importance to, and what students reported satisfaction with, provided the institutional management and decision makers with critical information concerning how to allocate limited financial and human resources to make improvements in areas deemed worthwhile from the student perspective.

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LIST OF APPENDICES

APPENDIX A: THE QUESTIONNAIRE

INTRODUCTION AND CONSENT

My name is Regina Stofile. I am a PhD candidate studying with Fort Hare University, Eastern Cape, South Africa. As part of the requirements of the degree programme, I am conducting a study entitled “Assessing institutional factors influencing student retention in one comprehensive university in the Eastern Cape province of South Africa.” Data gathered will assist in understanding the issue of student retention in universities, enhancing student satisfaction and ultimately student academic achievement. As a current university student, you have been selected to participate because you have significantly persisted with your studies in the institution, and you are in a position to comment on institutional factors affecting student retention in the university.

I am kindly requesting you to honestly complete this questionnaire. Please be assured that your responses will be confidential, so feel free to be as open as possible.

INSTRUCTIONS

Please indicate your responses with a tick (✓) in the appropriate box.

SECTION A: BIOGRAPHICAL INFORMATION

1.1 Gender

Male	1	
Female	2	

1.2 AGE

Age group	Code	
18 – 20	1	
20 – 25	2	
25 – 30	3	
30 – 35	4	
Older than 35	5	

1.3 Academic classification

Status	Code	
Full Time	1	
Part Time	2	

1.4 Year level

Year	Code	
1 st Year	1	
2 nd Year	2	
3 rd Year	3	
4 th Year	4	
Other specify	5	

1.5 Campus

Campus	Code	
Buffalo City	1	
Butterworth	2	
Nelson Mandela Drive	3	
Queenstown	4	

1.6 Faculty

Faculty	Code	
Faculty of Business Sciences	1	
Faculty of Science and Technology	2	
Education	3	
Engineering Science and Technology	4	
Management Sciences	5	
Commerce and Administration	6	
Education Science	7	
Health and Science	8	
Humanities, Sociology & Law	9	
Natural Science	10	
Education, Finance and Management	11	

1.7 Home language

Year	Code	
IsiZulu	1	
IsiXhosa	2	
English	3	
Afrikaans	4	
Other specify in space provided	5-----	

1.8 Residential status/Accommodation

Accommodation	Code	
On Campus	1	
Off Campus	2	

1.8 Source of Funding

Funding	Code	
Personal loan	1	
Scholarship	2	
NSFAS	3	
Self-Financed	4	
Parent/Relative	5	
Other Specify	6	

SECTION B

To what extent do you agree with how the stated factor contributes to your satisfaction with the University and your decision to complete your studies?

1 – Not at all

2 – To a limited extent

3 – Very much

4 – To a very large extent

2.1 Academic Advising and student satisfaction

Aspect of academic advising/level of agreement	1	2	3	4
Being advised of requirements of programmes before registration				
Being assisted to select programmes in line with my interests				
Being assisted to select programme in line with my				

academic abilities				
Being assisted to select programme in line with Matric passes strengths				
Being assisted to select programme in line with my career aspirations				
Having academic advisors being readily available when I am a new student.				
Making informed choices when selecting a programme of study.				
Having academic goals clearly defined to me by academic advisors				
Being assisted in developing educational plans that are consistent with my life goals				
Being assisted in understanding academic policies and procedures				

2.2 Academic support and student satisfaction

Aspect of academic support/level of agreement	1	2	3	4
When I am assisted with academic writing				
When I am offered to attend tutorials to complement lectures				
When there are systems to detect my academic problems on time				
When I am exposed to study skills				
When I am assisted with examination preparation skills				
When I am assisted with examination time management skills				

When I am offered peer academic assistance programmes				
When I participate in study groups with fellow students				
When lecturers are available for consultation outside lecture time				
When I am assisted in doing practical work				

2.3 Teaching approaches and student satisfaction

Aspect of teaching approaches/level of agreement	1	2	3	4
When lecturers use the lecture method only.				
When lecturers use methods that involve students in the learning process.				
When lecturers are punctual for lectures				
When lecturers always attend all scheduled lectures				
When module/course content is simplified for me				
When course module/content is translated in my home language				
When course module/content is delivered in English only				
When lecturers appear prepared for lectures				
When learning makes use of information				

communication technologies (ICT)				
When lecturers use social network platforms to communicate with students.				

2.4 Student assessment and student satisfaction

Aspect of student assessment/level of agreement	1	2	3	4
Using fair assessment of students				
Using constructive feedback on marked work				
Use of clear assessment guidelines				
Use of different assessment techniques				
Being able to understand terminology used in tests/exams				
Being able to understand learning outcomes as set out in the learner guide				
Being able to manage time during exams/tests				
Being able to summarise the key aspects of the course				
Being able to remember information easily				
Being able to interpret case studies (Theory to practice)				
Assessment feedback being given to me on time to improve in the next time				

2.5 Learning facilities and student satisfaction

Aspect of learning facilities/level of agreement	1	2	3	4
Having classrooms that are not overcrowded				
Having classrooms that are properly maintained				
Having adequate teaching and learning resources				
Being able to use library resources (journals, catalogues)				
Text books being available on time				
Having access to laboratories with enough equipment				
Having classrooms with enough furniture (tables, chairs)				
Having enough space to study				
Having access to library at any time				
Having access to printing and photocopying services easily				

2.6 Student funding service and student satisfaction

Aspect of student funding service/level of agreement	1	2	3	4
Having enough money for tuition and accommodation				
Being able to pay for my transport				
Being able to buy food				
Having a bursary				
Making it easy to get a loan				
Being able to perform well to secure my loan/ bursary				
Getting a part time job to pay for my fees				
Being able to budget and stick to it				
Being able to buy textbooks				
Being able to buy stationery				

2.7 Student accommodation and student satisfaction

Aspect of student accommodation/level of agreement	1	2	3	4
Having accommodation that is affordable				
Having accommodation that will give me time to study				
Having accommodation not far away from university				
Having accommodation that will make easy for me to access university library and other resources				
Having accommodation that will encourage study groups				
Having accommodation with enough resources to study				
Being able to develop friendship with room-mates				
Having accommodation that is safe, comfortable and well maintained				
Having accommodation where alcohol is prohibited (code of conduct)				
Having accommodation with technology infrastructure(Wi-Fi				

2.8 Student administrative services and student satisfaction

Aspect of student administration services/level of agreement	1	2	3	4
Having academic administrators that are approachable so as to provide good services				
Having someone to attend to my administration needs at all times				
Having someone to explain physical layout of the campus including location of key offices and functions				
Having someone to explain registration processes, class scheduling on time				
Having clear understanding of administrative procedures and policies				
Having someone to assist me in understanding all academic responsibilities				
Being informed about the available services on campus				
Having feedback regarding my performance being issued within specified time				
Having academic administrators understand me as a student in order to deliver satisfactory service				
Having administrators treat students the way they would want their daughters and sons to be treated				

THANK YOU VERY MUCH FOR YOUR PARTICIPATION!!!!!!!

APPENDIX B: ETHICAL CLEARANCE LETTER



University of Fort Hare
Together in Excellence

ETHICAL CLEARANCE CERTIFICATE REC-270710-028-RA Level 01

Certificate Reference Number: MAP021SNT001

Project title: **Assessing institutional factors affecting student retention in one Comprehensive university in the Eastern Cape Province of South Africa**

Nature of Project: PhD

Principal Researcher: Regina Ntongolozi Stofile

Supervisor: Prof C Maphosa

Co-supervisor:

On behalf of the University of Fort Hare's Research Ethics Committee (UREC) I hereby give ethical approval in respect of the undertakings contained in the above-mentioned project and research instrument(s). Should any other instruments be used, these require separate authorization. The Researcher may therefore commence with the research as from the date of this certificate, using the reference number indicated above.

Please note that the UREC must be informed immediately of

- Any material change in the conditions or undertakings mentioned in the document
- Any material breaches of ethical undertakings or events that impact upon the ethical conduct of the research

The Principal Researcher must report to the UREC in the prescribed format, where applicable, annually, and at the end of the project, in respect of ethical compliance.

Special conditions: Research that includes children as per the official regulations of the act must take the following into account:

Note: The UREC is aware of the provisions of s71 of the National Health Act 61 of 2003 and that matters pertaining to obtaining the Minister's consent are under discussion and remain unresolved. Nonetheless, as was decided at a meeting between the National Health Research Ethics Committee and stakeholders on 6 June 2013, university ethics committees may continue to grant ethical clearance for research involving children without the Minister's consent, provided that the prescripts of the previous rules have been met. This certificate is granted in terms of this agreement.

The UREC retains the right to

- Withdraw or amend this Ethical Clearance Certificate if
 - Any unethical principal or practices are revealed or suspected
 - Relevant information has been withheld or misrepresented
 - Regulatory changes of whatsoever nature so require
 - The conditions contained in the Certificate have not been adhered to
- Request access to any information or data at any time during the course or after completion of the project.
- In addition to the need to comply with the highest level of ethical conduct principle investigators must report back annually as an evaluation and monitoring mechanism on the progress being made by the research. Such a report must be sent to the Dean of Research's office

The Ethics Committee wished you well in your research.

Yours sincerely


Professor Gideon de Wet
Dean of Research

10 September 2015

APPENDIX C: INFORMED CONSENT FORM

STUDY TITLE

Assessing student satisfaction on institutional factors influencing student retention in one comprehensive university in the Eastern Cape province of South Africa.

Conducted by: Regina N Stofile Supervisor: Professor Cosmas Maphosa

The purpose of the study and the level of my involvement were clearly explained to me. I have understood the importance of the study and the value of my participation. I therefore, voluntarily agree to take part in the study without any reservations.

I understand that I am free to withdraw from participating in the study at any given time and I will not be affected in any way.

I also understand that this consent form will not be linked to any of the research instruments to ensure that my participation remains confidential.

I am informed that upon completion of the research, feedback will be made available to my institution on study.

As confirmation of my willingness to participate in this study, I herein- under sign and give my essential details:

Full Name:

Signature:

Date:

APPENDIX D: LETTER OF PERMISSION



**DIVISION OF ACADEMIC AFFAIRS AND RESEARCH
DIRECTORATE OF RESEARCH DEVELOPMENT**

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Fax: + 43 708 5458

23 September 2015

Mrs RN Stofile
University of Fort Hare
South Africa

Dear Sir

**Re: Request to conduct a Research study among Students at Walter Sisulu University-
Buffalo City Campus**

Permission is hereby granted for the study entitled **Assessing the institutional factors affecting students retention in one comprehensive university in the Eastern Cape Province of South Africa** provided that copies of your completed study will be submitted to the Campus Rector of the campus in which the study will be conducted and the Research, Innovation and Development Directorate.

Regards

Dr. E.N. Cishe
Acting Director: Research Development

Walter Sisulu University

APPENDIX E: LANGUAGE EDITOR'S CERTIFICATE



**SOL PLAATJE
UNIVERSITY**

Dr. J. Sibanda (Senior Lecturer: English)
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06 December 2017

TO WHOM IT MAY CONCERN

I hereby confirm that I have proof read and edited the following PhD Thesis using Windows 'Tracking' System to reflect my comments and suggested corrections for the student to action:

**ASSESSMENT OF STUDENT SATISFACTION ON INSTITUTIONAL FACTORS INFLUENCING
STUDENT RETENTION IN ONE COMPREHENSIVE UNIVERSITY IN THE EASTERN CAPE
PROVINCE OF SOUTH AFRICA
BY**

REGINA N. STOFIE

**A THESIS SUBMITTED IN FULFILMENT OF THE REQUIREMENTS FOR THE
DEGREE OF
DOCTOR OF PHILOSOPHY IN EDUCATION.**

Although the greatest care was taken in the editing of this document, the final responsibility for the product rests with the author.

Sincerely

06. 12. 2017

SIGNATURE

DATE