ATTRITION AMONG FIRST YEAR UNIVERSITY OF TECHNOLOGY STUDENTS: A STUDY OF FIRST YEAR SOMATOLOGY AND HUMAN RESOURCES MANAGEMENT STUDENTS AT THE CENTRAL UNIVERSITY OF TECHNOLOGY, BLOEMFONTEIN

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BLOEMFONTEIN
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Central University of Technology, Free State

DECLARATION OF INDEPENDENT WORK

DECLARATION WITH REGARD TO INDEPENDENT WORK

I, ITUMELENG PERCIVAL MOROLONG , identity number and student number , do hereby declare that this research project submitted to the Central University of Technology, Free State for the Degree DOCTOR OF EDUCATION, is my own independent work; and complies with the Code of Academic Integrity, as well as other relevant policies, procedures, rules and regulations of the Central University of Technology, Free State; and has not been submitted before to any institution by myself of any other person in fulfilment (or partial fulfilment) of the requirements for the attainment of any qualification.

______________________________ **11 April 2021**

SIGNATURE OF STUDENT **DATE**

DEDICATION

This study is dedicated to my parents, Motimeng Philemon Morolong and Dijeng Patience Morolong: thank you for the two biggest lesson of all: phenyo e mo thapelong (victory lies with prayer) and manners maketh man.

Many thanks to my younger sister Setshameko Gaongalelwe Lencoe and my late brother, Ngakanyane Philby Morolong, for the your love and support.

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To my late brother, Ngakanye Philby Morolong, thank you for always being on my side. Your unconditional love and the lessons you taught keep me going to this very day.

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ABSTRACT

Despite more than 20 years of democracy, universities continue to experience high attrition rates because of poor academic performance, particularly among Performance of First-Time Entering Students (FTEs). This continues to happen even though numbers of students enrolling at universities keep on increasing annually. The study investigated the bearing of the home environment on how FTEs perceive the university environment with reference to their interactions with the Central University of Technology (CUT) staff, their choice of programmes of study as well as the effectiveness of the CUT's student academic development and support initiatives. The theoretical rationale explored the research problem will be by referring to the research conducted before on attrition, thus also providing guidance on the areas to be studied.

The study reports on a sample drawn from a population of FTEs in Somatology and Human Resources Management (HRM) programmes. Quantitative data were collected by means of a questionnaire made up of both closed-ended and open-ended questions. Document analysis was also done was so that data from various sources can be scrutinised and construed to triangulate and corroborate the knowledge that was presented by previous studies, thus eliminating the potential for bias. The results of the study revealed that the home environment not conducive to learning as well as students not meeting admission requirements have a bearing on academic performance. Also, the nature of student's interaction with some CUT staff members may have a negative impact on their academic performance. Based on these findings some recommendations were made. The study proposes the development of the System for the Monitoring of Student Progress (SMSP) through a mobile app at a UoT, which will help to identify at risk students with the aim of implementing interventions that will assist them to be successful in their studies. It is hoped that the SMSP will put the university in a better position to assist FTEs to adjust to university life and improve their academic performance.

DEFINITION OF TERMS

The following term was used in this study:

- First Time Entering students (FET's):

(a) is successfully a registered student in the period of time in a course classified as undergraduate and

(b) has never been successfully registered for an academic programme in the time preceding registration at another university (Mouton, Van Lill, Botha, Boshoff, Valentine, Cloete and Sheppard: 2015: 22).

LIST OF ACRONYMS

The following acronyms were used in this study:

- Academic Language Proficiency (ALP)
- Access for Convenience (AFC)
- Annual National Assessments (ANAs)
- Council for Quality Assurance in General and Further Education and Training (Umalusi)
- Central University of Technology (CUT)
- Convention for a Democratic South Africa (CODESA)
- Council on Higher Education (CHE)
- Case-Based Learning (CBL)
- Equal Education (EE)
- Extended Curriculum Programme (ECP)
- Higher Education Institutions (HEIs)
- Higher Education Quality Committee (HEQC)
- Historically White Institutions (HWIs)
- Human Resources Management (HRM)
- Key Performance Area (KPA).
- Library and information Services (LIS)
- Member of the Executive Council (MEC
- Monitoring of Student Progress System (MSPS)
- National Student Financial Aid Scheme (NSFAS)
- Organisation for Economic Co-operation and Development (OECD)
- Portfolio of Evidence (POE)
- Quality Enhancement Project (QEP)

- School Governing Body (SGB)
- Short Messages (SMS)
- Socio-Economic Status (SES)
- Technical and Vocational Education and Training (TVET)
- University of South Africa (Unisa).
- University of Technology (UoT)
- Work-Integrated Learning (WIL).

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CHAPTER 1: INTRODUCTION AND BACKGROUND TO THE STUDY

1.1 INTRODUCTION

Attrition is a challenge that has to be confronted by higher education in South African like it is the case around the world. This will be expatiated in Chapter 2. Taking into consideration the numbers of First Time Entering Students (FTEs) that enter university, at least 25% fail to complete their studies (Akojee & Nkomo, 2007: 30). Moreover, few black students enrol in essential disciplines of science, engineering and technology, and are academically unsuccessful in these disciplines (Akojee & Nkomo: 2007: 30).

Since this study focuses on First Time Entering Students (FTESs), it is essential to provide a definition of this this term. In the words of Mouton *et al* ., (2015, 22), an FTE is an individual who falls in one of the categories below:

Undergraduate First-Time Entering: The specific individual:
is successfully a registered student in the period of time in a course classified as undergraduate and has never been successfully registered for an academic programme in the time preceding registration at another university Mouton *et al.,* (2015, 22).

Secondly, it is imperative to define attrition as it is also the focus of this study. Attrition can be defined as a situation whereby a student departs his/her programme of study. Another feature of attrition of attrition is a delay in successfully completing course requirements (Student attrition: consequences, contributing factors and remedies, 2012: 1). Other factors mentioned by the literature that affect attrition and student success at university are emotional intelligence (Parker, Summerfeldt, Hogan & Majeski (2004: 163), alcohol abuse (Wicki, Kuntsche & Gmel, 2010: 194) and self-efficacy (Dinther, Dochy & Segers, 2011: 96). Other causes of attrition will be discussed later in Chapter 2.

To unravel the myriad causes of attrition, this study contends that one should look at the history of provision of South African tertiary education (Meyer, St. John, Chankseliani & Uribe, 2013: 188). Most glaring of these is this country's unfortunate history of apartheid. Thus, after the 1994 democratic elections, multitudinous amendments had to be made to the public service structure, including the provision of higher education. For starters, under apartheid, the South African tertiary education system (OECD: 208: 33) incorporated public universities which was made up of Technikons, universities and a substantial quantity of privately-run institutions of higher learning (Reddy, 2004: 8-9). Here, the Department of Education used mergers and incorporation which led to the establishment of universities of technology, traditional universities and comprehensive universities (OECD, 208: 33).

Secondly, the post-1994 education authorities had to harmonise the educational policy with the political changes which meant amending education policy on three fronts: dismantling the arrangements created under apartheid and setting up a unified system of education, setting up a more impartial system of financing in the light of enormous demands made on the insufficient fiscal resources and developing a policy framework that genuinely expressed that values at the very foundation of the post-apartheid South Africa (Education in South Africa: achievements since 1994, 2001: 6).

Even after more than 20 years of democracy, the legacy of apartheid still bedevils the South African education system. There are poor universities (now called previously disadvantaged, to be politically correct) in the rural areas, found in the former Bantustans. Thus, the obstinate historical imbalances still estimate the manner in which formal education is distributed. At these previously disadvantaged institution, staffing, facilities and infrastructure are in a very perilous state. In an endeavour to redress the imbalances of the past, and thus provide opportunities for the previously disadvantaged, the former whites only school, colleges, universities and Technikons were opened-up to other races; thus, providing opportunities for some who were marginalised under apartheid. Regrettably, predominantly black students could not be assimilated into an arrangement that was intended for scholars from affluent upbringings (Akojee & Nkomo, 2007: 30). Unfortunately, mostly black students became the victims of discrimination and racism. Furthermore, Sadly, other inequalities including those of gender and race, are still reproduced by this revised education system (Akojee & Nkomo, 2007: 30).

1.2 PROBLEM STATEMENT

Attrition is a challenge that affect the higher education sector on a global scale as the review of literature will reveal. Though extensive research has been conducted and models of attrition and scholar-retention have been developed, the challenge of attrition still persists. Additionally, various scholars, as the study will show in the subsequent segments of this thesis, propose diverge methods of addressing attrition due to the unique circumstances of institutions of higher learning, thus proving that one-size-fits-all approach should be avoided.

The data displayed by tables 1.1 and 1.2, and charts 1.1 to 1.3 below support why this study aimed to investigate attrition among FTEs in Somatology and Human Resources Management programmes at the CUT, Bloemfontein campus. The blow data focuses on Enrolments, Pass Rate, Cohort Dropout by Base Enrolment and Dropout Year and Subject Termination for the

Management Sciences Faculty (ManFac for this study) of and Health and Environmental Sciences Faculty, respectively (H&ESFac), respectively. This data, used with permission from the CUT Registrar's office, was provided by CUT Data Management and was not available per programme, hence it is depicted per faculty.

Table 1.1: Student Headcount Enrolments by race and gender in the ManFac and H&ESFac, respectively as at 31 July 2013

Faculty	Department	Number of Students							
		AFRICAN		COLOURED		INDIAN		WHITE	
		Female	Male	Female	Male	Female	Male	Female	Male
MANAGEMENT SCIENCES		**2464**	**1639**	**133**	**79**	**7**	**9**	**92**	**123**
	GOVERNMENT MANAGEMENT	299	201	27	16	1	1	2	2
	ACCOUNTING	385	284	22	11			7	5
	TOURISM/EVENTS MANAGEMENT	108	83	6	8		1	24	24
	BUSINESS MANAGEMENT	835	525	46	29	4	3	19	44
	BUSINESS SUPPORT STUDIES	489	314	17	5	1	2	9	16
	INTERNAL AUDIT/FIS	247	185	3	5		1	2	4
	HOSPITALITY MANAGEMENT	101	47	12	5	1	1	29	28
HEALTH & ENVIRONMENTAL SCIENCES		**574**	**443**	**34**	**16**	**2**	**3**	**171**	**111**
	AGRICULTURE	67	99	3	2		1	5	57
	HEALTH SCIENCES	232	90	15	4	1	2	85	20
	CLINICAL SCIENCES	102	133	10	5	1		66	29
	LIFE SCIENCES	173	121	6	5			15	5

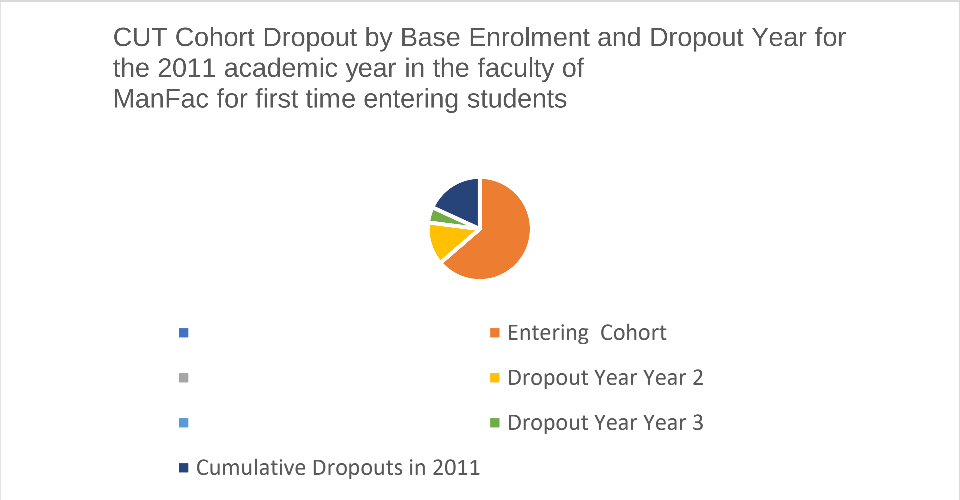
Table 1.1 illustrates that more African male and female students were enrolled as compared to their Coloured, Indian and White counterparts in the faculties on Management Sciences and Health and Environmental Sciences respectively.

Table 1.2: Pass rate by race and gender in the ManFac and H&ESFac, respectively as at 31 July 2013

Faculty	Department	Pass Rate							
		AFRICAN		COLOURED		INDIAN		WHITE	
		Female	Male	Female	Male	Female	Male	Female	Male
MANAGEMENT SCIENCES		**22,6%**	**23,8%**	**24,0%**	**25,4%**	**19,1%**	**27,3%**	**19,5%**	**20,5%**
	GOVERNMENT MANAGEMENT	43,4%	40,6%	48,9%	45,7%	42,9%	28,6%	42,9%	41,7%
	ACCOUNTING	35,6%	33,6%	34,8%	37,8%			52,4%	33,3%
	TOURISM/EVENTS MANAGEMENT	13,6%	10,6%	21,4%	6,7%		0,0%	19,5%	9,3%
	BUSINESS MANAGEMENT	7,7%	7,5%	5,0%	10,9%	31,3%	50,0%	21,5%	25,9%
	BUSINESS SUPPORT STUDIES	12,9%	19,8%	17,1%	30,8%	0,0%	20,0%	25,0%	26,5%
	INTERNAL AUDIT/FIS	37,9%	36,4%	84,6%	54,1%		0,0%	55,6%	40,0%
	HOSPITALITY MANAGEMENT	12,3%	11,2%	8,1%	0,0%	5,3%	0,0%	12,4%	15,6%
HEALTH & ENVIRONMENTAL SCIENCES		**19,5%**	**19,3%**	**23,5%**	**25,2%**	**0,0%**	**36,4%**	**16,5%**	**24,0%**
	AGRICULTURE	21,7%	21,0%	0,0%	0,0%		0,0%	24,0%	26,2%
	HEALTH SCIENCES	26,8%	37,4%	30,8%	28,6%	0,0%	40,0%	22,8%	39,3%
	CLINICAL SCIENCES	13,5%	14,8%	24,8%	25,0%	0,0%		9,9%	16,7%
	LIFE SCIENCES	10,2%	10,0%	9,4%	28,6%			8,1%	0,0%

Table 1.2 shows that although more students that are African were enrolled in the faculty of Management Sciences, Coloured, Indian and White counterparts passed more of their programmes.

Graph 1.1: CUT Cohort Dropout by Base Enrolment and Dropout Year for the 2011 academic year in the faculty of ManFac for first time entering students



Graph 1.1 shows that for the 2011 academic year, there were 964 FTEs in the ManFac. In their 2nd yearly study, 202 students dropped out and in the 3rd year of study, 73 students dropped out of their studies respectively. Thus, 275 students dropped out of their studies.

Graph 1.2: CUT Cohort Dropout by Base Enrolment and Dropout Year for the 2011 academic year in the H&ESFac

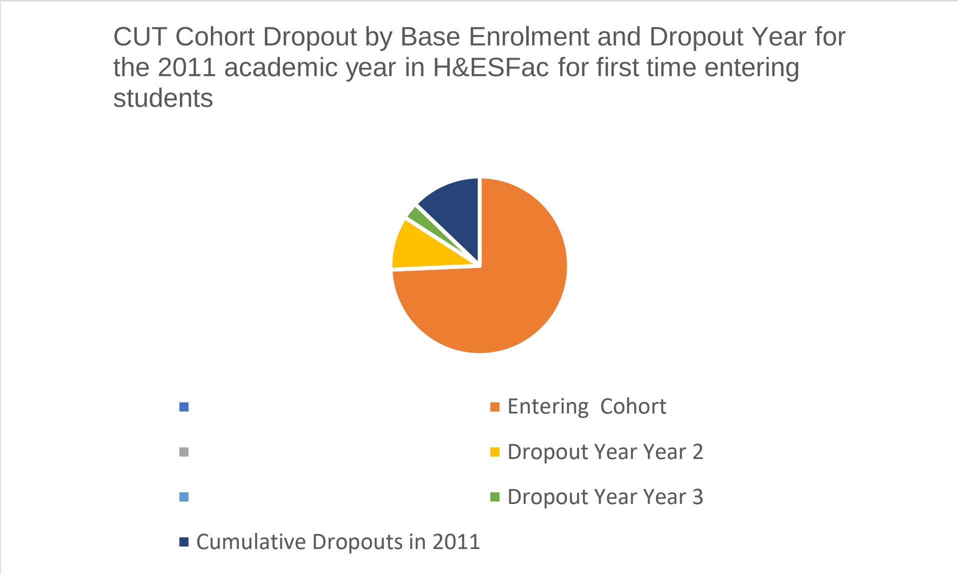
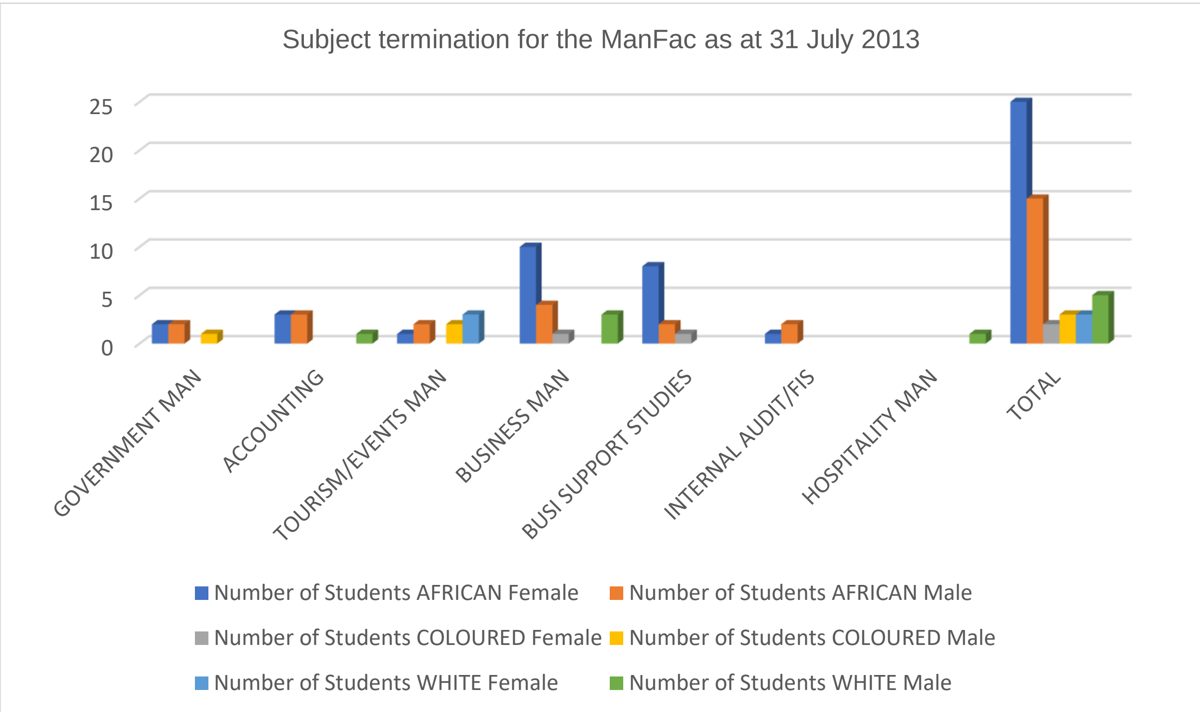


Chart 1.2 shows that for the 2011 academic year, there were 393 first time entering students in the H&ESFac. In their 2nd year of study, 52 dropped out and in the 3rd year of study, 16 students dropped out of their studies respectively. Thus, 68 dropped out of their studies.

Graph 1.3: Central University of Technology subject termination for the ManFac and H&ESFac, respectively as at 31 July 2013



Graph 1.3 depicts that for the ManFac; more female African students terminated their subjects, followed by male African students. For the H&ESFac, more female African students terminated their subjects, followed by male African students. This is in line with Wildschut (2011, 184) who, in a study of attrition of women doctors, reported that African women still have the highest attrition rate.

Table 1.3: Somatology Student Retention for 2013 year of enrolment

Tracking Year	Students	Graduates	Throughput Rate	Retained Students	Dropout Rate
2013	24	0	0.0%	100.0%	0.0%
2014	15	0	0.0%	62.5%	37.5%
2015	7	7	29.2%	29.2%	41.7%
2016	2	2	37.5%	8.3%	54.2%
2017	0	2	45.8%	0.0%	54.2%
2018	1	0	45.8%	4.2%	50.0%

Table 1.3 illustrates that in Somatology in 2013 a total of 24 scholars were enrolled. By 2018, the throughput rate was 45.8% with only 4.2% of scholars being retained and 50.0%had dropped out, respectively. These numbers are alarming.

Table 1.4: HRM Student Retention for 2013 year of enrolment

Tracking Year	Students	Graduates	Throughput Rate	Retained Students	Dropout Rate
2013	149	0	0.0%	100.0%	0.0%
2014	119	2	1.3%	79.9%	18.8%
2015	47	59	40.9%	31.5%	27.5%
2016	21	25	57.7%	14.1%	28.2%
2017	12	7	62.4%	8.1%	29.5%
2018	6	4	65.1%	4.0%	30.9%

Table 1.4 illustrates that in HRM in 2013 a total of 149 scholars were enrolled. By 2018, the throughput rate was 65.1% with only 4.0% of scholars being retained and 30.9% had dropped out, respectively. Here too, these numbers are disquieting too.

1.3 PURPOSE OF THE STUDY

1.3.1 Overall purpose

To investigate attrition among FTEs in Somatology and Human Resources Management at the CUT, Bloemfontein campus. The effectiveness of the CUT's various student academic development and support initiatives are discussed. This study sought to determine the factors that contribute to attrition, such as FTEs home environments, the university environment and whether or not FTEs get the opportunity to register in programmes which is their first choice of study.

The significance for higher education institutions (HEIs), (a UOT for this study), was to understand the reasons behind students terminating their studies prematurely which is paramount. It thus becomes imperative for HEIs to understand, appreciate and acknowledge the perspectives and aspects that lead students to terminate their studies before graduation (Minnick, 2007: 5-6).

1.3.2 Specific aims

The following specific aims with regard to the FTEs in Somatology and Human Resources Management guided the study:

1.3.2.1 To ascertain if the home environments affect academic performance.
1.3.2.2 To determine whether the teaching and learning environment impacts academic performance.
1.3.2.3 To establish if the lack of opportunity to register in the programmes which are their first choice of study has a bearing on academic performance.
1.3.2.4 To determine if the FTEs are aware of, and to ascertain the effectiveness of, the CUT's academic development t and support initiatives for students.
1.3.2.5 Postulate the establishment of the System for the Monitoring of Student progress at a UoT. It will be argued that SMSP help to identify at risk students with the aim of implementing interventions that will assist them to be successful in their studies.

1.4 HYPOTHESES

The following hypotheses were investigated among the FTEs in Somatology and Human Resources Management:

1.4.1 The home environments affect academic progress.
1.4.2 The teaching and learning environment at university influences academic performance.
1.4.3 Lack of opportunity to register in a programme which not the first choice of study contributes to attrition.
1.4.4 Though FTEs are aware of CUT student academic development and support initiatives, these do not always meet their needs.
1.4.5 SMSP will contribute to a decline in attrition by identifying at-risk FTEs.

1.5 RESEARCH QUESTIONS

The questions which led this study are:

1.5.1 Do home environments affect academic performance?

1.5.2 Does the university environment influence academic performance?

1.5.3 What is the impact of registering for a programme which is not their first choice of study?

1.5.4 A current CUT student academic development and support initiatives assisting students in their studies effectively?

1.5.5 Will the establishment of SMPS help in reducing attrition at a UoT?

1.6 RESEARCH METHODS

1.6.1 General approach

The study followed the quantitative approach. The latter was chosen because it centres around the "what questions" and was appropriate to this study because since the purpose thereof was to investigate the causes of attrition among First-Time Entering students (FTEs) in Somatology and Human Resources Management (HRM) at a University of Technology (UOT).

The survey was used to collect data, because as Mouton explains (2011, 152), the of a survey offers a wide-ranging outline of a collecting sample that can be deemed as being representative of a larger populace. When a study seek to determine what people are feeling and thinking, the survey method is most appropriate. Secondly, questionnaires are used in a survey, the advantages of which are that they ensure that respondent is completely anonymous and they a not as costly as interviews (Cozby, 2009: 132).

This study intended to track or trail the progress of first time entering students (FET's) from the commencement of the 2016 academic year up to the conclusion of the 2016 academic year. This was done by observing the following:

How many subjects are terminated by first year's students enrolled in the Human Resources Management and Somatology programmes. respectively.

The proportion of 1st year students enrolled in the Human Resources Management and Somatology programmes respectively in the end of year examinations as compared to students from the other departments in the ManFac and the H&ESFac respectively at the Technology at the Central University of Technology, Bloemfontein.

1.6.2 Population and sample

A population can, depending on the study, be made up of events, groups and individuals. A population embodies the entire gathering of all components of investigation about which a study desires to make precise inferences (Welman, Kruger and Mitchell, 2005: 52 & 55). Therefore, for this study, a population was FTEs in Somatology and HRM. This study focused on the first time entering FTEs from the commencement of the 2016 academic year up to the close of the 2016 academic year.

One cardinal characteristic of a population of a study is that it is not feasible and it also does not make economic sense to encompass all members of a population in a study. Hence is crucial to rely on data acquired from the sample of a population. The sample should be representative to make it possible for the results to be generalizable to the rest of the population; meaning that the sample has to have the precise characteristics, properties and proportions, albeit in smaller numbers, as the population from which it was drawn (Welman *et al.,* 2005: 55).

Equally important is the fact that all members of the population cannot be reached. Because a sample is made of the elements and components of a population, it therefore makes it possible to get more accurate information that would otherwise not be obtained if the entire population was studied (De Vos, Strydom, Fouche & Delport, 2002: 199-201).

Random sampling was employed in this study, resulting in the selection of 65 respondents. 24 of the respondents were from the Somatology programme and 41 were from the Human Resources Management programme, respectively. Here a random process that uses either a random number of a random table of numbers was employed as it provided an opportunity for every member to have the potential of being included in a study (Frerichs, 2008: 3-2). To access the population of this study, protocols and procedures prescribed by CUT were followed.

1.6.3 Data collection

Document analysis and questionnaires were used to collect data as they afforded the researcher an opportunity to see the empirical evidence found by those who researched particular research problem before, how they went about it, how it was theorised and conceptualised (Mouton, 2011, 87).

Literature review and document analysis is important in the sense that it:

- Make certain that one does not simply produce a replica of a study that was done earlier.

- Enables one to discover what the most recent and authoritative theories on a particular subject are.
- Provides the most extensively putative observed conclusions in the area of being studied.
- Recognizes the obtainable equipment that has established its legitimacy and consistency (Mouton: 2011, 87)

A questionnaire was used to collect data in this investigation since it provided an opportunity to obtain the desired information in a goal-orientated manner. Due to its relevance to this study, a questionnaire with both that equally employs closed or blocked-ended and open or not restrained-ended questions were used because the latter offers the respondents the opportunity to write their own answers, while the former offers the respondents the prospect of selecting an answer from the choices provided (De Vos *et al.,* 2002: 179).

1.6.4 Data analysis

Data were analysed by a qualified statistician. Analysis of data means breaking up of the data into practicable relationships, patterns, themes and trends. An inspection of the relationship between, for example, variables and constructs, enable one to understand what constitutes data. Secondly, data analysis enables one to determine if patterns can be identified and also be isolated. Interpretation of data, on the other hand, entails synthesising and consolidating data into larger logical wholes (Mouton, 2011: 108).

In analysing the data for this study, descriptive statistics were used. These are focused with describing and summarising the data (Welman *et al.*, 2005:231-232). Categorical data analysis was used to measure statistical inferences between the different variables. In this regard, Elliot (2007: 113) explains that when data is divided into categories, it makes it possible for counts to be recorded. Once data has been divided into categories, it can be broken down further into two basic types, namely the nominal and the cardinal. Nominal variables are those that have categories that cannot be grouped into a particular order, like hair colour, while ordinal variables are those that have some intrinsic order in them, like socio-economic status.

1.7 ETHICAL CONSIDERATIONS

Because of the interaction between the researcher and population of a study, it is crucial that ethics are considered in research. This interaction occur, when, for example, surveys are conducted and during in-depth interviews. It is thus of utmost importance that the following ethical considerations are observed in the academic enquiry pursed by this study:

- The participants were requested to partake in this study.
- The anonymity of participants is guaranteed.
- The participants were not to be exposed to stress, be it mental or otherwise.
- This study did not cause embarrassment to the participants
- No deception was be used.
- Should special techniques and equipment be used, participants was be duly informed (Polonski, 2004: 58).

1.8 IMPORTANCE OF THE STUDY

In highlighting the significance of this scholarly enquiry, reference is made to (Minnick, 2007: 29-30) who wrote that not only is attrition professed by the student and university as a let-down, it generates a public discernment of institutional ineffectiveness; thus, the blame for this ineffectiveness must be shouldered by the university.

The worth of this study also is entrenched in the circumstance that despite more than 20 years of democracy, there is a high attrition rate among first year university students, notably among black students in comparisons to white students at university in South Africa (Akojee & Nkomo, 2007: 30. Most importantly, the study asked first year university students their opinion as to what are the causes of attrition. This study postulates that the Monitoring of Student Progress System (MSPS) be the responsibility of student support services at a university of technology since these are generally tasked with looking after the well-being of students. All these are investigated to determine if they can help identify at-risk students in an attempt to reduce high attrition rates among first year university students.

1.9 DEFINING THE TERMS USED IN THIS INVESTIGATION

The following term were used in this study:

- First Time Entering students (FET's):

(a) is successfully a registered student in the period in a course classified as undergraduate and

(b) has never been successfully registered for an academic programme in the time preceding registration at another university (Mouton *et al*. 2015: 22).

1.10 THEORETICAL RATIONALE

This study makes reference to previous research on the causes of attrition from different countries and the various models of attrition. Also, the hypotheses made, the research questions and the statement of the problem were used to ascertain that this study does not deviate from the set objectives. The research problem to be explored. The scholar is expected to make a distinctive presentation of the carefully was explored by referring to the research conducted before, look at the challenge of attrition at the CUT, collect and analyse data, discuss the finding and make recommendations in the field of attrition. Adom, Hussein and Agyem (2018, 438-439) mention that a theoretical framework is the guide or blueprint for an investigation. It is a structure based on current theories in an area of investigation that correlate and/or signifies the hypothesis of research. It is an outline that is frequently lent by the scholar to construct his/her own research. It serves as the groundwork upon which research is built. The theoretical framework directs the scholar not diverge from the boundaries of the accepted principles to make his/her final scholarly and academic contribution. All facets of the research are supposed to relate to the theoretical framework. The scholar must delicately choose the appropriate principle or theories that reinforce the understanding of the phenomenon chosen theory so as to apply the theoretical constructs to his/her thesis. In the same breath, a conceptual framework is a construct which the researcher deems best to explain the natural evolution of the phenomenon to be explored. It is the researcher's description of how the research problem would be investigated. The conceptual framework presents an assimilated way of exploring the problem being studied. (Adom, Hussein and Agyem, 2018: 438-439). A brief theoretical rational is presented in this chapter, with a detailed presentation made in the subsequent chapters.

Akoojee & Nkomo (2007: 387) point out that in 1936, the then Minster of Education commissioned one of the first studies on attrition in South Africa, albeit among white students only, that surveyed 8000 thousand students who entered South African universities. It was found that 25% failed more than 1 subject, while 47% failed at least 1 subject. The reasons for this failure rate was a combination of the inadequateness of the university teaching system and the transition from high school to university. Later, in 1956, at one institution, an average of 38% of first year students failed their studies. However, no correlation could be found between school and university performance, meaning that the achievement at school was in no way related to success at university.

In present-day South Africa, there is an incontrovertible desire at HEIs to enable the participation of black students and predominantly women, while at the same time safeguarding that those input approaches should result fruitful conclusions. Research conducted recently point to considerably most disadvantaged levels of adjustment of black scholars at hitherto white institutes (HWIs) and notable a decrease in the performance of black scholars as compared to their white counterparts, respectively. This has led to higher dropout rates among black students (Akoojee & Nkomo, 2007: 386).

Currently, access to higher education has become an essential political demand which has led to, among others, the Education White Paper of 1997. It can be argued that there are two noticeable philosophies of admission to tertiary education in policy in South African from 1994, and that these offer vastly dissimilar outcomes. After 1994, policy documents determined to address the question of admittance to university education by advancing the participation of mostly black scholars at HWIs. It not surprising that in that period access as participation approach was adopted. Nevertheless, there has been a move to an access with success approach, which is aimed to enable the success of black students (Akoojee & Nkomo, 2007: 390).

The earlier access with participation trend was the core of the political mandate of the new democracy, which required a prompt elimination of racism in the tertiary education segment. To this end, the symmetry of black scholars saw jump from 13% in 1993to 39% in 1999. Recently, these numbers had increased to 46% by 2000. At the same time, the representation of females increased considerably in the same period; for example, in 1988 women made 42% of total enrolment at HEIs and this number had grown to 5% by 1994 (Mpine, 2006: 1). Nevertheless, the academic success of mostly black students at HWIs appeared to be perfunctory (Akoojee & Nkomo, 2007: 390).

It should be noted that in patterns of university enrolment, gender and racial inequalities are apparent. There is no denying that the numbers of mostly black and female students entering HEIs has increased considerable since 1994. Yet black and female students are persistently under-represented in science, technology, engineering, business and commerce programmes. In the same breath, significant discrepancies care visible in the completion rates in undergraduate programmes, which are also accompanied by high attrition rates of black students. Even in post-graduate studies, there are fewer black and female students here. To illustrate the latter point, in 2008, 41% of doctoral graduates were females while in total 45% were black (Green Paper for post-school education and training, 2012:7-8).
Shifting focus, it was mentioned earlier that challenges that confront HEIs are from the home environment of the FTEs. In a study conducted in Germany, it was found that from an early age, the family background influences pre-school students' growth, numeracy and literacy levels between the age of 3 and 5. Family and social background factors were also found to have a bearing on achievement from very early in a child's life (Anders, Rossbach, Weinert, Ebert, Kuger, Lehrl and von Maurice (2012: 240). On the contrary, learning about letters and numbers, shared book-reading and general consistent participation in routine literacy activities provide learners

with the critical foundation for mergent literacy and language growth Rodriguez, Tamis-LeMonda, Spellmann, Pan, Raikes, Julieta Lugo-Gil and Luze (2009: 678).

Higher maths and literacy performance at entry and in elementary school were observed to be predicted by the home-environment quality and socioeconomic status (Dilworth-Bart: 2012: 1). According to Vartanian and Gleason (1999: 34-35) the higher the quality of the neighbourhood, as measured by primarily indications of socioeconomic status and wealth, the less likely the possibility of young people dropping out of high school, thus the more likely students are to complete their studies. For the white youth, evidence of the effects of positive neighbourhood were found, whereas for black youth, neighbourhood characteristics were more likely to put them at a disadvantaged position, thus leading them to abandon high school (Vartanian and Gleason: 1999, 34-35). The effect and bearing of neighbourhood conditions on academic performance will thus be tested in this study. A host of environmental home factors that pose barriers to academic success include, according to Robertson, Canary, Orr, Herberg and Rutledge (2010: 48), social support, family responsibilities, finances and work hours.

Turning attention to the university environment, this study postulated that it too can contribute to greater rates of attrition at among FTEs. The approachability displayed by the teaching staff, coupled with their ability to make course both challenging and interesting, can have a major influence on retention and attrition. These, in turn, can affect the commitment and expectations of students (Willcoxson, Cotter & Joy, 2011: 348). Willcoxson (2010: 627), in a study of undergraduate Faculty of Business students, was able to determine that students will leave university for their won circumstances and reasons. The skills of staff, and the support they render to students, are likely to be among the reasons why students leave their studies. If lecturers and administrative staff fail to create learning experiences that are characterised by engagement, clarity of content, timely feedback students are more likely to show an inclination towards abandoning their studies Mouton et al (2015: 22) . As individuals, students, should it happen that they feel that that they lack the necessary academic preparation, they will decide to leave university. Still further, there those, according to Schneider (2010: 3) who are of the view that far too many students enter university unprepared for the rigours they are about to face in higher education, while other contend that universities are not doing their job of educating their students.

Three themes that are related to students departing from their studies were discussed in a study of 60 doctoral students by Gardner (2008:105-107). These are wrong fit for the programme, personal problems and departmental issues. The majority of personal problems, mentioned by one-third of the students, were related to family responsibility, children and finances. Departmental issues centred around several programmatic issues like departmental politics, bad advices and lack of financial support. Regarding the wrong fit for the programme, students identified lack of motivation to continue studying, that they did not feel that the location of the university was good for them and that the graduate school was not for them as reason for departing form their course before graduation.

Gardner (2008:105) point to institutional perspective, which relates to the specific characteristic of a university, that can present hindrances or opportunities that will affect the students' chances of graduating, or not. These are, however, independent of the students' other traits. The 4 models of institutional perspective ate the academic difficulty model, the institutional resource model, the social mismatch model and the group conflict model. The academic difficulty model postulates that because of the elite institutions' academic difficulty, black students tend to have lower graduation rates. Those who are critical of affirmative action argue that black students receive preferential treatment, only to crumple when face with the institutions academic demands and the subsequently fail to graduate. Institutional resources suggest that if there are sufficient student support serves, these will help students to cope with their academic workload and the challenges presented by the university social life, therefore increasing their chances of graduating. Social mismatch points to that fact the elite institutions present a social and cultural environment that is alien to, and subsequently not supportive enough to black student because the latter are more likely to have come from disadvantaged backgrounds. Lastly, group conflict advocates the fact that black since black students perceive themselves to be in completion with their white counterparts, the they face a larger comparative disadvantage, thus lowering their chances of graduation.

To support the assertion made in connection with the Universities of Technology (UOT)'s learning and teaching environment to potentially to influence the first year university students' academic performance, reference is made to the work of (Pehmer, Groschner & Seidel, 2015:108), whose study highlight the fact that classroom discourse is the supreme mode used in teaching. The way in which this discourse presented, Pehmer, Groschner & Seidel (2015:108) contend, is cardinal to the academic success of students. To this effect, Microsoft PowerPoint is one tool that is used to present lectures and has become universal and synonymous with teaching in university classrooms. Regrettably, the use of Microsoft PowerPoint has not translated into equivalent attainment of learning outcomes. Thus, the potential impact of (Microsoft PowerPoint) slides to assist or undermine the note-taking process becomes difficult to determine. The same goes for the potential impact of slides to affect class attendance adversely or positively the potential impact of (Microsoft PowerPoint) slides (Worthington & Levasseur, 2015, 14, 15). Here, the question is: do lecturers have an alternative to Microsoft PowerPoint? Secondly, do lecturers consider student performance when they plan for interactions intended to take place in class?

Different lecturers will have different classroom practices. For example, some lecturers will interact less with low expectation students or wait less for these students to answer questions (Mizala, Martínez & Martínez, 2015: 70). If the above were the case, one cannot help but wonder how does it influence student academic performance. The ripple effect of such a situation has the potential to cause anxiety on the part of the student; which in itself, can be attributed the student's experiences, past and present. Anxiety can have pessimistic repercussions for the learning process, as was the case in a study carried out in the Statistics course at the Nursing Department of the Technological Institute in Greece. Here it was found that once anxious about the Statistics course, students experienced difficulties in learning statistical concepts and methods, and they also displayed a limited ability to develop statistical thinking skills and applying them, respectively, I clinical practice. The unenviable result is that it might lead to difficulty on the part of the student in understanding what is being taught (Kiekkas *et al*., 2015: 1-2).

The second example of classroom practice is the identification of at-risk students. One way of identifying at-risk students early is to monitor class attendance and academic progress at university, which this study regards as paramount in addressing high attrition rates among university of technology students. Doyle, O'Brien, Timmins, Tobin, O'Rourke and Doherty (2008: 135) found that staff at a university were in agreement on the pivotal role of monitor class attendance. The staff in question were administrative staff, course coordinators and directors. Even student representative conceded that most students were in support of the monitoring of class attendance. Students also agreed that class attendance is necessary when they participated in study that was conducted by Bati, Mandiracioglu, Orgun and Govsa (2012: 3) which investigated why students missed classes. Here students were in accord that class attendance does have an effect on academic performance and achievement. Thus, early identification of at-risk students can help to diminish the risk of attrition by devising strategies that present students with opportunities to be academically successful (Abele, Penprase & Ternes, 2013: 258).

Thirdly, there is the classroom practice of providing students with feedback. Here, Thompson (2004: 19) cautions that the nature of evaluative feedback provided to students is vital regarding their persistence, goal-setting and intrinsic motivation. The manner in which students regard their feedback is equally important: the extent to which they are able to get closure on the factors determining their success and/or failure, and how they view their ability: whether it is permanent and fixed, meaning that it cannot be changes or as a set of capabilities that can be improved, thus enabling them to meet the demands and rigours of higher dedication with confidence.

Lastly, classroom practice may be influenced by the fact that students may not get the opportunity to register in their first choice of study, as this study learned from interviews with students during internal reviews of academic programmes at the CUT. As a result, students are compelled to opt for the next available option, which they are not necessarily interested in. This scenario is not unique to the CUT. In Greece, a study by Caroni (2011: 67) at the National Technical University of Athens (NTUA) which focuses on registrations that took place from 1993 to 1993 up to 2003 to 2004, found out that some students were admitted to schools which were not their first choice of study. Since they did not obtain high-enough marks in entrance examinations, some students were placed in schools which were not their preference and first choice of study. These students were thus not able to register in a course which is their first choice of study and thus enrolled in a course, for example Mining Engineering, of which they had little idea what it was about.

University management and governance are also consequential to the student-experience. In the context of South Africa, in an endeavour to guarantee that HEIs provide quality education, institutional audits were conducted by the HEQC among all public HEIs and 11private HEIs in 2004 and 2001, respectively. Panels made up of experts, in discussion with stakeholders from separate universities (Framework for Institutional Quality Enhancement in the Second Period of Quality Assurance, 2014: 2), produced detailed audit reports that identified strong points and shortcomings of institutions, and made commendations and endorsements for improvement. The development and implementations of improvement plans by institutions made precious and immeasurable impressions on institutional capacity development (Framework for Institutional Quality Enhancement in the Second Period of Quality Assurance, 2014: 2).

In an endeavour to enhance tertiary education further in South Africa (Pithouse-Morgan & Samaras, 2015: 15), the HEQC had their external evaluation carried out in 2009. The evaluation report mentioned that the HEQC should find mechanism that can be put in place so that the focus would be on the promotion of quality in its second quality assurance cycle (Framework for Institutional Quality Enhancement in the Second Period of Quality Assurance, 2014: 2). The HEQC concluded that Learning and Teaching, one of the 3 central purposes of higher education in South Africa, needed instantaneous, urgent and very imperative attention if this countrywide necessity for extra highly qualified alumni was to be addressed. The other 2 core functions of higher education in South Africa are Research and Community Engagement (Framework for Institutional Quality Enhancement in the Second Period of Quality Assurance, 2014: 2). Points alluded to above laid the foundation for the QEP.

The QEP was the HEQC's answer to meet the challenges of inadequate output of graduates at South Africa's HEIs. Enhancing all aspects of learning and teaching with the overall intention of refining student accomplishment became the aim of the QEP (Framework for Institutional Quality Enhancement in the Second Period of Quality Assurance, 2014: i-ii).

During the QEP, there was a reciprocal relationship between those activities coordinated at national level and those coordinated at institutional level. The good practices of certain institutions were shared with other institutions. However, the QEP also acknowledged specific problems which were common to all HEIs and their subsectors that could not be solved by individual institutions. This approach promoted the enhancement of the whole HEI system and its fundamental components (Framework for Institutional Quality Enhancement in the Second Period of Quality Assurance, 2014: 14).

The method put to use in the QEP was collaborative, iterative and inductive. During varying points of this venture, evidence was implored from universities, examined, returned to the institutions, advanced further, gathered, analysed and reported back to again. Thus, to make progress at sectoral and institutional levels respectively, institutions were requested to engage with chosen areas. The 4 focus areas of Phase 1 of QEP (Framework for Institutional Quality Enhancement in the Second Period of Quality Assurance, 2014: 20) are:

- Strengthening instructors as teachers (encompassing professional growth, recompense and acknowledgement, workload, situations of service, and performance assessment) (Framework for Institutional Quality Enhancement in the Second Period of Quality Assurance, 2014: 20).
- Strengthening student support and development (including career and curriculum advising, life and academic skills development, counselling, student performance monitoring, and referral) (Framework for Institutional Quality Enhancement in the Second Period of Quality Assurance, 2014: 20).
- Strengthening the learning milieu (where including teaching and learning occurs, ICT organization and admittance, technology-enabled apparatuses and properties, and library amenities) (Framework for Institutional Quality Enhancement in the Second Period of Quality Assurance, 2014: 20).
- Strengthening course and programme staffing management (including admissions, assortment, settlement, re-admission negation, pass ratios in entry academic programmes, throughput ratios, and management information systems) (Framework for Institutional Quality Enhancement in the Second Period of Quality Assurance, 2014: 20).

It was hoped that during the QEP, persons employed at tertiary institutions, and indeed in the rest of the institutions, would engross in the process of incessant augmentation of the student involvement that would ultimately lead to superior achievement by students. Moreover, it was hoped that collaborations amongst universities would give rise to shared impact that had the capacity to significantly surpass what could be achieved by separate stakeholders (Framework for Institutional Quality Enhancement in the Second Period of Quality Assurance, 2014: 23). With regards, to the CUT, its QEP was launched on 04 March 2014 and tits first QEP Workshop was held on 24 June 2014. The four task teams reported on the work they have done in Phase 1(Framework for Institutional Quality Enhancement in the Second Period of Quality Assurance, 2014: 20).

Although it was reported earlier that the proportion of African students at HWIs has increased substantially, it should be taken onto account that African students constitute a minority Akoojee and Nkomo (2007: 390). There must be initiatives, as Nugent, Childs, Jones and Cook (2004:89) articulate, to achieve the retention and graduation of minority students who come from various ethnic and racial backgrounds. Moreover, Wells (2003: 234-235) advices that it is essential that there should be an institutional culture, institutional pledge and implementation thereof that are committed to cultural sensitivity and the retention of minority students.

1.11 CUT STUDENT SUPPORT SERVICES

Testing the effectiveness of the CUT's Student Support Services in assisting FTEs in Somatology and HRM to cope with their studies is one of the objectives of this study; hence they are briefly discussed below:

1.11.1 e-Learning and Education Technology

Projects, contents of lecturers and assessments are some of components of e-Learning and Education Technology that are available to students, thus supplementing academic programmes. Students can thus use the internet, whether on campus or from home, to access e-learning material (CUT Prospectus, 2013: 107-1119).

1.11.2 Centre for Work-Integrated Learning and Skills Development

The aim is to get students ready for the labour market and to upsurge student placement for work placement This is achieved by establishing mechanisms for WIL, which a compulsory for some of the academic programmes (CUT Prospectus, 2013: 107-1119).

1.11.3 Student Services

Student Services endeavours to fashion an environment favourable to, and prospects essential for, the removal of barriers to teaching and learning, thus providing an environment that will facilitate staff and students to partake in scholarship. Development and growth outside the classroom are endorsed by encouraging the expansion of a setting that encompasses innumerable cultures together with activities (CUT Prospectus, 2013: 107-1119).

1.11.4 Residence Life

Residences offer accommodation in double and single rooms, and are expediently situated on or close to the campus. The boarding houses are furnished with televisions, tumble-dryers, washing machines and telephones. Though there are self-catering services, the campus cafeteria also provided students with balanced meals. The Residence Managers, together with the House Committees, collaborate in the management of residences. Though the academic aspect is the highest priority, cultural and sporting activities are also held regularly (CUT Prospectus, 2013: 107-1119).

1.11.5 Student Life

The aspiration connected Student Life is to get scholars involved in the campus life of the CUT by presenting various student and cultural development activities regularly. Subject associations in different study fields, under the guidance and leadership of a guardian lecturer, endeavour to stimulate students' academic interests. The cultural aspect of student life is catered for by associations like the Student Union, the Drama Association, the Debating Society, the CUT Choir and the Latin-American and Ballroom Dancing clubs. The CUT's annual Cultural Week provides an opportunity to diverse student associations to display their talents (CUT Prospectus, 2013: 107-1119).

1.11.6 Student Development and Governance

To develop the students' leadership potential, the CUT prepares students for leadership roles and responsibilities by offering student leadership programmes. The Student Development and Governance Unit prepares students for leadership roles by overseeing, among others, the dancing, chess, choir, dancing and debating activities (CUT Prospectus, 2013, 107-1119).

1.11.7 Wellness Centre

Chaplaincy services, selection of prospective students, social services, academic support, reading development, counselling/psychology and health services are provided by the Wellness Centre. Also provided are Medical Services (CUT Prospectus, 2013: 107-1119).

1.11.8 Library and information Services (LIS)

The strategic goals set by the LIS are providing information skills, information technology, research, teaching and learning. The LIS also has as its mission the provision of access to information in supporting teaching, learning research and community engagement (CUT Prospectus, 2013: 107-1119).

1.11.9 Operational Sports

Sporting codes that are supported are cricket (for males and females) golf, soccer, karate, athletics, hockey (for males and females), table-tennis and basketball. The procedure is for students wishing to participate in the various sporting codes to alert the applicable Deputy Manger as quickly as conceivable so that the necessary arrangements can be made for the to join the suitable club in the city (CUT Prospectus, 2013: 107-1119).

1.11.10 Fees, Bursaries and Loans

Fess payable to the CUT are determined by the Council on a yearly-basis. For the FTEs, the loans and bursaries available are the Academic Recruitment, Academic Merit and the CUT Leadership Bursaries, respectively. Also available is are loans in the form of the Funza Lushaka and NSFAS (CUT Prospectus, 2013, 107-1119).

1.11.11 Compulsory Academic Literacy and Personal Competencies Module

1.11.11.1 Academic Literacy

ALP is mandatory for all FTEs, the only exemption being for those FTEs who have evidence of successful completion of an English proficiency module from another HEI. ALP asses on the part of the student his/her ability apply dialectal capability, that emanates after experience and knowledge expanded at school (CUT Prospectus, 2013: 107-1119).

1.11.11.2 Personal Competencies/Life Skills

Upon entry to the CUT, it is fascicle for all FTEs to take part in learning experiences that foster and uphold the development of personal proficiency that articulate with the DHET's 12 Critical Outcomes. A POE that serves as evidence has to be submitted as proof that all activities related to the DHET's 12 Critical Outcomes have been attained before graduation. To equip FTEs with competencies required for successful navigation of higher education, Personal Competencies/Life Skills, among others, exposes students to those learning experiences that forester analytical decision making skills, effective study methods and creative thinking skills (CUT Prospectus, 2013: 107-1119).

1.11.12 .Extended Curriculum Programme (ECP)

ECPs are dependent of additional funding from the DHET. In order to continue with the ECP programme, FTEs must pass all instructional offerings; which means no repletion of the first year will be allowed. The ECP programme must be completed as FTEs will not be permitted to change to the mainstream programme (CUT Prospectus, 2013: 107-1119).

1.12 THE SCOPE AND LIMITATIONS OF THE STUDY

The South African higher education landscape consists of a heterogeneous blend of UoTs, traditional and comprehensive universities, private higher education institutions and TVET colleges. Thus, this study, being conducted at a UoT, the results thereof might not necessarily be applicable to other types of HEIs. Withal, only students from the H&ESFac (Somatology) and ManFac (HRM) of the CUT, respectively, will be part of this study. Consequently, the results of this study might not inescapably be germane to students in the FacOfHum (Humanities Faculty and FacOfBIET (Built, Engineering and Information Technology Faculty), severally. Secondly, the location of the MSPS, as postulated by this study, will depend on the organisational structure of each HEI; so will the management, implementation, monitoring and evaluation thereof.

1.13 THE STRUCTURE OF THE THESIS

Chapter 1: Introduction and background to the study looked at problem statement, the hypotheses, research methods and the topic of attrition from South Africa and abroad
Chapter 2: Review of literature discussed the models of attrition and provides the South African perspective on attrition.
Chapter 3: Research methodology relevant elaborates the methodology relevant to this study.
Chapter 4: Data presentation, analysis and interpretation of the results of this are provided
Chapter 5: Summary, recommendations and conclusions from this study are presented.

1.14 CONCLUSION

Chapter 1 conjured the pre-and-post 1994 amendments in the tertiary education sector in the South African scenery relevant to this investigation. Also looked at were the causes of attrition pertinent to this study. The following apposite to this study were also conversed: the declaration of the problem, the purpose of the research, the research methodology, populace and sample, assortment of data, data scrutiny, ethical considerations, significance of the study, list of acronyms and CUT data that propped the choice to research attrition among FTEs in Somatology and HRM. Chapter 2 will discuss the review of the literature found to be applicable to this study.

CHAPTER 2: REVIEW OF LITERATURE

2.1 INTRODUCTION

In reference to this study, Eick, Williamson, and Heath (2011: 13000) offer the best definition of attrition in the when they remark that attrition is the variance between the number of students commencing and the number finishing a cohort (Eick, Williamson & Heath, 2011: 1299). Nevertheless, this variance must be attuned for students who interpose their studies and relocating to alternative academic programmes. In the United Kingdom the Department of Health suggested a characterization of attrition that reflects remittances (external and internal) (Eick, Williamson & Heath, 2011: 1299). The Canadian Nurses Association endorsed a similar definition for usage in Canada (Eick, Williamson & Heath, 2011: 1299).

However, Wilson, Eva and Lobb (2012: 579) caution that more often than not, the theories on attrition at higher education institutions that are referred to are the ones based on American research. This therefore means that there is a possibility to contribute to this body of scientific knowledge by researching theories from other countries, like this study is researching attrition from an OUT in South Africa. The latter statement can be broken down further by explaining that this study researched attrition from a UOT at the central region of South Africa Wilson, Eva and Lobb (2012: 579).

Causes of attrition relevant to this study encompass South Africa's unfortunate past, the students' home environments, the students' Socio-Economic Status (SES), the university environment, lack of opportunity to register in a course which is their first choice of study (Access for Convenience), and the impact of students' placement during Work Integrated Learning (WIL). WIL is included because it is an integral part of some of the academic programmes offered by a UOT, with special reference to Somatology, for the sake of this study and current CUT interventions to assist at-risk students. This study will propose the System for the Monitoring of Student Progress (SMSP) at a university of technology, which will be dedicated to the monitoring of academic progress as a way of identifying at risk students. How attrition is reported by the media (newspapers in particular) will also be looked at.

Furthermore, attrition is not exclusive to South Africa Mouton et al. (2015: 6). In a study in the United Kingdom between the period of 1994-1995, it was found that of full-time students who do not bring to completion the academic programme for which they initially registered, around two-thirds depart through, or at the conclusion of the first-year of enrolment. This represented an enormous charge by public funds, meanwhile the cost of non-achievement for most full-time university students in England was projected to be about £91 million for the 1994-1995 academic year (Yorke *et al*., 1997: 1).

Yorke *et al* (1997: 2) goes on to mention that in a study of the first-year experience in Australian higher education, McInnis (1995) found that almost one third of the students felt ineffectively disenchanted and disillusioned with their encounter of tertiary education to really consider if to delay their studies or not. Those who recently completed their schooling were found to be the knottiest cluster of students, being less certain of their part than their elder peers; less industrious in studying; and a little guided towards academic activity.

Blunden (no date: 1) also reported on attrition at Australian universities. A concern was raised about student attrition specifically, and student quitting studies more commonly. This concern was exhibited in backing orientation programs, the appointment of changeover personnel, advocacy programs that included feeder schools, and the augmentation of traditional student assistance services that provided for students, particularly first-year students, academic assistance such as writing services development, therapy, advice and occasionally fiscal assistance.

Wilson, Eva and Lobb (2012: 579) refer to Finnie and Qiu (2008) who had earlier found that five years after entering university, 69.4% of students managed to graduate and 20.4% were still registered, while 10.2%. had abandoned their studies Previously, in 1993 to be specific, the Ontario Midwifery Education Program (MEP) was created by the Ontario Ministry of Health and Long-Term Care and the Ontario Ministry of Training, Colleges and Universities, respectively, had a collaborative programme between McMaster, Ryerson and Laurentian, universities. For the rest of 2006 at McMaster and Ryerson universities, 72 midwifery students abdicate their academic programme. This attrition symbolizes a tuition returns loss of nearly 1 million dollars to this day.

In China, the increase in depression amongst university students (from approximately 5%–10% in 2002 to 24%–38% in 2011) has been observed as additional young folks enrolled for university education (Yu *et al*., 2015: 2). This is over and above the fact that around 75% of elder middle school learners have the chance to attain university education (Yu *et al*., 2015: 2). Risk factors for adolescent depression have been identified to encompass numerous and a labyrinth of matters of individual features, for both family and academic milieus, respectively (Yu *et al*., 2015: 2). Family relations deserve particular attention amongst the possible risk influences of depression, since issues such as parenting styles and family undercurrents affect the manner in which children mature (Yu *et al*., 2015: 2). Growth, preservation and sequence of depression in the formative years have been displayed in studies to affect family factors. Generally, depressed youths experience added adverse family and parent–child associations than ordinary youths (Yu *et al*., 2015: 2).

One-third of students pull out of tertiary education prior to obtaining a qualification in the Organization for Economic Cooperation and Development (OECD) countries (Maher, Marguerite & Macallister, 2013: 1). This is inauspicious for students, universities and the society as a whole: for students not possessing a qualification means less job prospects in the future, HEI's may be castigated by their governments by curtailing funding and for society, perpetual departure from studies before completion from tertiary education means a wastage of the money and less highly skilled citizens. The undesirable consequence is that these will have negative bearing on social, cultural and technological development (Torenbeek, Jansen & Hofman, 2010: 659).

2.2 A BRIEF HISTORICAL BACKGROUND OF HIGHER EDUCATION PROVISION IN SOUTH AFRICA

The purpose of this section is to elucidate that higher education provision for the previously disadvantaged black people of South Africa was not a priority for the erstwhile apartheid regime. This section aims to give credence to the assertion made earlier that, firstly, the erstwhile apartheid state's unwillingness towards the sustenance of university education for the indigenous populace of Africans, which will be alluded to later in this chapter. Secondly, to draw attention to the fact that black students enrolled at previously whites-only institutions are expected to fit in with a system that was not designed for them; placed them (black students) in the risk of attrition.

When the African National Conference (ANC) came to power after the 1994 general elections, policy on education and delivery of education were amongst numerous parts of governance that necessitated instant a split with the racist distortions and inferences of segregation. An initial take was to dismantle and reorganize the discrimination that had characterized the delivery of education with its 19 diverse ethnically based subdivisions and to restructure the education classification provincially (Christie: 2009: 378 & 379). A variety of economic and social rights as well as the right to elementary and mature education and children's rights of were also highlighted in the Bill of Rights, which had to be entwined with education delivery (Spreen & Vally, 2006: 352).

As early as 1953, the Bantu Education Act (no. 47) of September 1953 made education provision for blacks an essential component of apartheid, and let the missionaries, who had up to then managed virtually entire schools for Africans, in a quandary: either to relinquish management their schools to the newly-established Department of Bantu Education or to retain them under missionary regulation without government grants. However, Baldwin (2011: 3) cautions that not all mission organizations viewed education as equally important. Some mission organizations provided secondary schools, while others were reluctant to provide advanced education.

The Nationalist Party state presented a new meddlesome position into the interactions betwixt government and the public in relation to the topography of university education. Under segregation, the government was revamped to shape the citizenry further resolutely along the positions of ethnicity and race (Reddy, 2004: 8-9). This boiled down into an organizational exercise where all communal services were furnished disjointedly and unevenly. There were thus departments of Native, Indian, and Coloured Affairs; and additionally, sub-bureau to cope with health, welfare, education and additional services (Reddy, 2004: 8-9). The Bantustans (which should to be measured as assistant structures of the central government) additionally protracted this administrative system to control and oversee the populace inside its regions. The scheme was intended to create and strengthen Caucasian individuality and the financial, communal and ethnical authority by Caucasian of the populace(Reddy, 2004: 8-9). Those declared as not being Caucasians were anticipated to be in employments for the sole purpose of servitude the Caucasian population and ethnically adopt characters and actions articulating relegation to safeguard the foundation of causation entitlement and dominance. The blueprint of ethnically deciding on communal associations permitted the government to unify, manage and consistently enforce its philosophy on education policy in accordance with its segregation mission (Reddy, 2004: 8-9).

The then head of Lovedale College, James Stewart, put forward the suggestion of a university for African in 1904 to the Colonial Native Affairs Commission. When the necessity for skilled African teachers became ostensible, the Commission approved the suggestion (Reddy, 2004: 8-9). Early backing was sluggish. The Presbyterian Mission provided 5 000 pounds. The Transkeian Territories General Council contributed 10 000 pounds. The Central Union administration, subsequently some years later, subsidized a scanty 600 pounds (Reddy, 2004: 8-9). The recently created university for Africans was initially known as the Inter-State Native College. It was subsequently retitled the South African Native College, and initially had 18 African males, 2 African womenfolk, and 2 Caucasian scholars. Albeit the college might write the University of South Africa (UNISA) examinations in 1923; it was only the Caucasian faculty that received recognition as internal assessors(Reddy, 2004: 8-9). A contribution of 75 000 pounds from the Chamber of Mines in 1935 permitted for the college to be extended, launching faculties of medical and science education. The supervision of the afore-mentioned college continued to be supervised by the missions without ample sustenance from the government until there was intervention by apartheid (Reddy, 2004: 10).

Reddy: 2004: 9-10) further reports on the extraordinary trait of university education in South Africa by informing us that that its delivery changed and replicated itself along ethnic and cultural lines. It is therefore essential to admit that the appearance, responsibilities, and principles of universities in modern South Africa are associated unswervingly to the unfortunate past of Caucasian partisan, financial and ethnical command and thus university education replicates the history of disproportionate relations of control preserved during the colonised and segregation rule(Reddy, 2004: 8-9) . To illustrate the latter point, Fort Hare, a tertiary institution for black in South Africans, was set up in 1916, almost a century after the founding of the first tertiary institutions for Caucasians. Additional representation of the fact that Caucasian education took precedence over that of blacks can be explicated by referring to the fact that the South African College Schools (SACS) which was instituted in 1829 later advanced by 1918 into a fully acknowledged tertiary institution, the University of Cape Town (Reddy, 2004: 8-9). Privileged Afrikaners were similarly resolute to create their own tertiary institution as part of their separatist agenda, and due to the struggle with the British, established Victoria College in 1865. Victoria College was later retitled the Stellenbosch University in 1918. Moreover, after the encampment of English expatriates in 1820, Rhodes University was promulgated in the Eastern Cape (Reddy, 2004: 8-9) . In Johannesburg a School of Mines University shadowed the mining gyration on the Rand. It started in 1895 and developed into the University of the Witwatersrand in 1922. The University of South Africa (UNISA), which was governed by the central government, had divisions of schools throughout the country, while it (UNISA) helped these as the examination board (Reddy, 2004: 8-9). Nevertheless, from the 1930's forwards these allied institutions became autonomous tertiary institutions, which led to the founding of the Universities of Free State, Pretoria, , Potchefstroom, and Natal. All these institutes, except for Fort Hare, attended the needs of the Caucasian reigning cates.

When the government of the Nationalist Party assumed power in 1948 the sum of black students registered at tertiary institutions was at a meagre 4.8%, largely registered at the University of Fort Hare. This truncated number was characteristic for Africa under colonial rule(Reddy, 2004: 8-9). The situation of Fort Hare demonstrates the state's unwillingness towards the sustenance of university education for the indigenous populace of Africans. It was tens of years before Fort Hare was funded by the central government and South African commerce and industry (Reddy, 2004: 9-10).

By referencing to the work done earlier by Horrell (1968), Reddy (2004, 9-10) expounds that rather than deny tertiary education to blacks by depending on the admissions guidelines of the recognized Caucasian tertiary institutions, the segregated state started a firm policy to establish universities for the diverse heterogenous black groups which were defined by the state(Reddy, 2004: 8-9). These new universities, informally known as the bush colleges, were intended to serve the over-comprehensive imposing segregation political mission based on the formation of spurious-autonomous states in the African ethnic reserves. For the Swazi and Zulu speaking the regime created the University of Zululand (Reddy, 2004: 8-9). For the Tswana, Venda, Sotho, Transvaal Ndebele and the Tsonga speaking, the University of the North was created. The tertiary institutions of the Durban-Westville and Western Cape respectively were formed for those determined by apartheid to be Indians and Coloureds . By the beginning of the 1970's universities had been founded in the Bophuthatswana, Venda, and Transkei Bantustans (Reddy, 2004: 8-9). These institutes were anticipated to authenticate, replicate, and establish, specifically among the well-to-do, characteristics and social interactions of ethnicity and race. If fruitful, this venture would split the mainstream black populace into numerous factions, thus waning both the corporeal majority and the partisan, ethical demands for a popular democratic governance in a united South Africa (Reddy, 2004: 8-9).

As a reply to the perilous state of the community education arrangement in South Africa, the Education Roadmap was envisioned to invigorate educational legislators and experts into action, get schools the sustenance they need, get teachers educating and learners being taught, and eventually produce an operative and respectable quality arrangement of education (Fraser, 2008: 16). Fraser (2008: 16), who appears in the work of Tikly (2011: 91) explains that overcoming injustice means dismantling established hindrances that obstruct some people from participating on a par with others as full partners in social interaction.

Moving to the present day, even though widening of access to higher education has led to an increased figure of students accessing tertiary education institutions in South Africa (Framework for Institutional Quality Enhancement in the Second Period of Quality Assurance, 2014: 2), Green and Baird (2009: 80) caution that pure statistics are not the solitary manner of measuring quality of keeping students in the education system; the quality of the student involvement is also an essential component.

A discussion of the main models of student retention will follow.

2.3 A DISCUSSION OF THE MODELS OF STUDENT RETENTION RELEVANT TO THIS STUDY

Numerous scholar retention studies have been carried out and theoretic exemplars have been advanced, such as the Undergraduate Dropout Process Model by Spady, Tinto's Institutional Departure Model, Bean's Student Attrition Model, The Student-Faculty Informal Contact Model of Pascarella, and the Student Retention Integrated Model of Cabrera, Nora, and Castaneda. Each of these will be discussed briefly, with emphasis falling on Tinto's model since it has elements mentioned in this study; particularly the pre-entry attributes, emanating from the scholars' home environment for this study; and the academic arrangement scholars will become part of, which is explained as the university environment and scholars registering in a programme which is not their first choice of study. It is thus imperative to keep these in mind when reading about Tinto's Institutional Departure Model in the sections that will follow.

Scholars are unsuccessful to advance their studies due to diverse causes. The writings of scholar retention in higher education is opulent with the theoretic representations and experiential readings that expanded deliberation among academics and educationalists over the previous four decades (Aljohani, 2016: 1).

Prior to 1970, readings on scholar attrition concentrated mainly on the features of individual scholars, instead of focusing on their relations with university surroundings. These studies were observed to have an absence of the theoretic and experiential consistency, theoretical lucidity, procedural thoroughness, complication of strategy, extensiveness, investigative intricacy and certain theoretic foundation (Aljohani, 2016: 2).

However, during the late 1960s and the 1970s, methodical studies and efforts to conceive retention structures that encompassed the concept of the student-college association became more collective. These studies of the 1960s and the 1970s demonstrated that there are two classifications in each university (scholarly and communal) and at least two features in each arrangement that impact a scholar's resolution to withdraw: marks and intelligent advance in the academic arrangement and standard correspondence and relationship sustenance in the communal arrangement; and subsequent research and models considered the nature of scholars' formal relations (Aljohani, 2016: 2). Tinto' s model (1730) reflects the reiterative process that an undergraduate scholar experiences, through the academic years, considering a possible choice between dropout or persistence. Although quite unpretentious, Tinto's model is still mostly used by high level educational establishments as a reference model for impending dropout (Nicoletti, 2019: 52). Tinto (1975: 89) also cautions that notwithstanding the very far-reaching literature on dropout from higher education, a lot is still undiscovered about the characteristics of the dropout procedure. To a great extent, the inability of previous research to describe more evidently the manifold features of dropout can be outlined to two foremost limitations; namely, insufficient consideration given to enquiries of definition and to the advancement of theoretical models that pursue to clarify, not merely to designate, the progressions that bring scholars to depart from universities.

Regarding the enquiries of definition, inadequate reflection given to definition has frequently directed academics to group together, under the title of dropout, practices of departing conduct that are strikingly diverse in their composition. It is not unusual to find, for example, investigation on dropout that does not differentiate dropout as result of being academically unsuccessful from that which is the consequence of voluntary departure. Nor is it unusual to find permanent dropouts grouped together with individuals whose departure may be temporary or may lead to transfer to other institutes of higher learning (Tinto, 1975: 89-90).

Given the scenario explained in the latter paragraph, previous investigations have thus formed conclusions of an inconsistent nature and/or ambiguous in their inferenced. For example, inability to differentiate being academically unsuccessful from voluntary departure has more often led to apparently inconsistent conclusions that show aptitude to be conversely associated to dropout, unconnected to dropout, and directly connected to dropout. In additional instances, not separating permanent departure from temporary and/or transfer behaviours has frequently led institutional and state administrators to miscalculate considerable magnitude of dropout from higher education (Tinto, 1975: 89-90).

In the instances mentioned above, the inability to describe dropout sufficiently can have substantial influence on queries of strategy in higher education. From the institutional viewpoint, policy makers might be incapable to recognize target populations needing specific forms of support. From the broader angle of the state, policy makers might not be in a position to offer for flexible admission and transfer processes that allow scholars to find a place in some fragment of the higher educational arrangement more effortlessly (Tinto, 1975: 89-90).

Furthermore, investigation on dropout from higher education has also been noticeably accentuated by insufficient development of the concept of the dropout progression. This is specifically conspicuous in the absence of attention provide to the expansion of those kinds of longitudinal models that would lead to an appreciation of the procedures of interaction, which bring, over time, different persons within the establishment to variable levels of persistence and/or to variable forms of dropout behaviour. With the exclusion of a few investigations, most research of dropout has been restricted to expressive declarations of how different persons and/or institutional features are connected to dropout. But knowing, for example, to what extent a person's measured aptitude and social standing are connected to the possibility of his/her departing from university does not mean being aware how these characteristics influence the progression of departing from university. While the former necessitates slightly more than a modest assessment of the proportions of dropout among persons of different capability and social standing features, the latter necessitates the advancement of a theoretical longitudinal model that connects numerous personal and institutional features to the progression of departing from university (Tinto, 1975: 89-90).

2.3.1 The Undergraduate Dropout Process Model by Spady of 1970 and 1971

Spady began to elucidate the dropout procedure by examining the eminence of the interface between the scholars and the setting of their academic organizations. This interface is the outcome of the acquaintance of individual scholars' qualities such as characters, concerns, approaches and abilities to the effects, prospects and demands of the various constituents of their organizations including academic programmes, faculty memberships, managers and counterparts. Spady's foremost postulation was that the conclusion of this interface regulates the level of scholars' assimilation within the scholarly and social arrangements of their institutions and consequently their perseverance. According to Spady, a scholar's choice to stay or depart from his or her educational organization is swayed by two chief issues: marks and academic progress in the educational system, and standard correspondence and relationship support in the social organization (Aljohani, 2016: 4-5, Burke: 2019). The two factors, regularising similarity and friendship support, like the two aspects that Durkhelm used to credit for high levels of social assimilation in the ordinary life of society: moral awareness and collective relationships, are essential. Spady (1971: 2). Social and academic incorporation, which parallel to common group ethics and friendship support are both expected to impact the choice to dropout. The undergraduate dropout process represents an amalgamation and extension of notions relevant to topical work on university dropouts. (Bean, 1981: 7).

2.3.2 Tinto's Institutional Departure Model of 1975 and 1991

Tinto's Institutional Departure Model is also known as the Student Integration Model. The Institutional Departure Model is largely based on Spady's observations of interface between scholars and the educational and social arrangements of their organizations. Tinto assumed the views of social anthropology on the rites of passage in ethnic societies to define the longitudinal procedure of scholars' integration into the cultures of their educational organizations by citing that the transmission of relations between subsequent assemblies is manifest by the three phases of parting, evolution and amalgamation as proposed earlier by Van Gennep in 1960 (Aljohani, 2016: 6, Burke: 2019, McCubbin: 2003: 1-2).

Once a scholar has undergone the procedure of dissociating him or herself from his or her earlier societies, but before having effectively developed the standards and morals of the new university community, that scholar is said by Tinto to be in the evolution phase. This phase can transpire throughout or subsequent to the initial one. Lastly, having effectively progressed through the initial two phases, the scholar can start the procedure of amalgamation into the new community of the university (Aljohani, 2016: 6, McCubbin, 2003: 2).

Additionally, Institutional Departure Model has its origins in Durkheim's theory of suicide of 1961 which explains that suicide is more probable to happen when persons are inadequately assimilated into the fabric of society. Precisely, the probability of suicide in society upsurges when two kinds of assimilation are absent, namely, insufficient moral (value) integration and insufficient collective affiliation. Thus, it can sensibly be expected that social circumstances impacting on dropout from the social system of the university would look like those resultants from suicide in the broader society, namely, inadequate relations with others in the university and inadequate conformity with the predominant value arrangements of the university collectively (Tinto: 1975: 90-91).

Nonetheless, as universities consist of both social and academic arrangements, it is imperative to differentiate between normative and structural assimilation in the academic sphere of the university from that in the social sphere of the college. The latter is necessary since departure from university can ascend either from voluntary departure (as it is the case with suicide) or from forced departure (as bin the case of dismissal), which results mainly, though not essentially, from inadequate levels of academic performance (unsatisfactorily low marks) and/or from the contravention of recognized laws regarding appropriate social and academic conduct (for example, protest by scholars). Thus, differentiating between the academic and social spheres of the university further proposes that an individual may be able to achieve assimilation in one area without doing so in the other (Tinto, 1975: 91).

It thus become essential that, if one desires to advance a theoretical model of departure from university, one which pursues to clarify the longitudinal process of connections that lead different individuals to variable practices of perseverance and/or dropout behaviour, one needs build into the model sets of personal traits and characters applicable to scholastic perseverance. To do this, Tinto proposes that one must take account of not only background features of persons (such as those measured by social standing, high school proficiencies, community of habitation, etc., and individual characteristics such as gender, aptitude, race, and culture) but also expectation and motivation characteristics of persons (such as those determined by vocation and scholastic prospects and stages of inspiration for educational accomplishment). With explicit orientation to departure from university education, one would need to be aware of the persons' scholastic prospects and their institutional exhibitions, if any (Tinto, 1975: 93).

Tinto also argues that (1975: 93) a model of departure from university would have to contain evidence on both the level of expectation (e.g. 2 or 4-year degree) and the strength with which the anticipation is held. Denoted as an individual's educational goal commitment, it is an imperative contributing variable in the model of departure because it assists to stipulate the psychological alignments a person conveys with him/her into the university setting, alignments that are significant conjecturers of the technique in which persons intermingle in the university setting. In the same breath, one would expect goal commitment to be specifically connected to perseverance in university (Tinto, 1975: 93).

Considering a person's features, previous proficiencies, and obligations, the model contends that it is the person's assimilation into the academic and social organizations of the university that straightforwardly relates to his/her persistence in that university. At the end, it is the relationship between the person's obligation to the objective of completing his/her studies at university and his/her obligation to the organization that regulates whether or not the person chooses to depart from university and the methods of dropout behaviour the concerned person accepts. Apparently, either low goal commitment or low institutional commitment can lead to departure from university. Considering prior commitment to the goal of university accomplishment, the lower a person's obligation to the organization, the more likely he/she is to depart from that establishment (Tinto, 1975: 96).

The individual scholar's conclusion to depart from an establishment of university schooling is made up of influences that are external to the university. More often, happenings in the social arrangement external to the university can influence assimilation within the more restricted social and academic arrangements of the university, thus signifying that those influences will be best perceived through the individual's altering assessments of his obligations to the objective of university accomplishment and to the institute in which he/she is registered (Tinto, 1975: 97).

Specific judgements regarding any kind of action can be analysed in terms of the alleged costs and remunerations of that action in relation to those professed in alternate actions. Considering the concept that costs and remunerations are of both specific and secondary kinds and embrace social and economic influences, this theory contends that persons will channel their efforts toward that action that is professed to capitalize on the proportion of advantages to costs over a specified time standpoint (Tinto, 1975: 97).

Equally, Tinto's model also acknowledges the point that individuals may remain at university because of limitations on their quest of alternate accomplishments. Simplification of limitations may then lead to perceptible fluctuations in degrees of departure even though there are no perceptible alterations in the quantity and quality of specific connections within the university environment. Thus, Tinto's model also acknowledges that individuals of different individualities may hold opposing observations of seemingly alike circumstances. In both assimilation into the academic and social arrangements of the university and in the assessment of the costs and benefits of that and alternate forms of action, it is the opinions of the person that are significant (Tinto, 1975: 98).

Characteristics of the individual scholars have a bearing on the decision to depart from university. In this regard, Tinto (1975: 99) mentions that the features related to persons, relations within the university environment, and the features of organizations of university education have also been linked with departure from university. Additionally, the probability of an individual's departing from university has been revealed to be linked to the features of their family. Put in universal terms, the family's socio-economic status seems to be, in the other way round, linked to departure from university. Particularly, children from lesser standing families display upper rates of departure than do children of upper status families even when intellect is considered Tinto (1975: 99). The impact of socio-economic status will be discussed later in this chapter.

Further aspects linked with family contextual factors are also significant for the scholar's scholastic attainment and performance in college. The most significant of these aspects are the value of relations within the domestic surroundings and the awareness and prospects parents have for their offspring's schooling. Regarding the former, scholars who persist at university are inclined to come from families whose parentages tend to appreciate more unrestricted, independent, compassionate, and less inconsistent relations with their offspring's schooling. Regarding the latter, scholars who persist at university give the impression of not only to getting more parental guidance, commendation, and articulated concern in their university encounter, but they also have parents who articulate grander outlooks for their offspring's additional schooling. In this regard, it seems that parental ranks of prospects may have as much a bearing on their offspring's perseverance in university as the offspring's own prospects for himself/herself (Tinto, 1975: 100).

Tinto (1975: 100), in expressing the influence of the family on the scholar's university education, also acknowledges the impact of the scholar's individual characteristics when he mentions that the scholar's own aptitude is even more significant. Thus, appraised aptitude was almost twice as imperative in considering departure from university as was the social status of the family. Aptitude, however measured, is but one of a number of personal features found to be related to perseverance at university. Moreover, noteworthy character and variations in attitude have been observed between scholars who persevere at university and those who depart from university. Those scholars who depart from university tend to be more imprudent than scholars who persevere at university, deficient in any profound emotive obligation to schooling and incapable to gain as much from their previous encounters. Lacking the resilience to deal with altering conditions has also been noted as character trait of those scholars who depart from university.
However, it is imperative to differentiate prudently between those scholars who depart from university due to being academically unsuccessful and those who withdraw voluntarily (Tinto: 1975: 100). It has, however, been observed that those scholars who depart from university voluntarily often achieve higher on numerous academic tests of aptitude while those who are

academically unsuccessful generally obtained lower in their academic tasks (Tinto, 1975: 104). Additionally, it is worth noting that scholars with concrete educational capability but abstemiously low pledge to university achievement incline to depart voluntarily from university, frequently to transfer to another establishment or re-register at the same establishment at a future date (i.e., stop-out). Scholars who are academically unsuccessful but abstemiously high pledge tend to persevere in university until conclusion or until obliged to depart for academic explanations (i.e., academic discharge). Scholars with both low pledge to university achievement and abstemiously low academic aptitude tend to depart from university and not relocate to another organization or re-register at a future date (i.e., permanent departure) (Tinto, 1975: 105). In this regard, departure from university seems to express greater sensitivity and self-centeredness than any other cluster, issues which, in Tinto's model, appear to be associated more to communal assimilation than to academic assimilation (Tinto, 1975: 100). Furthermore,

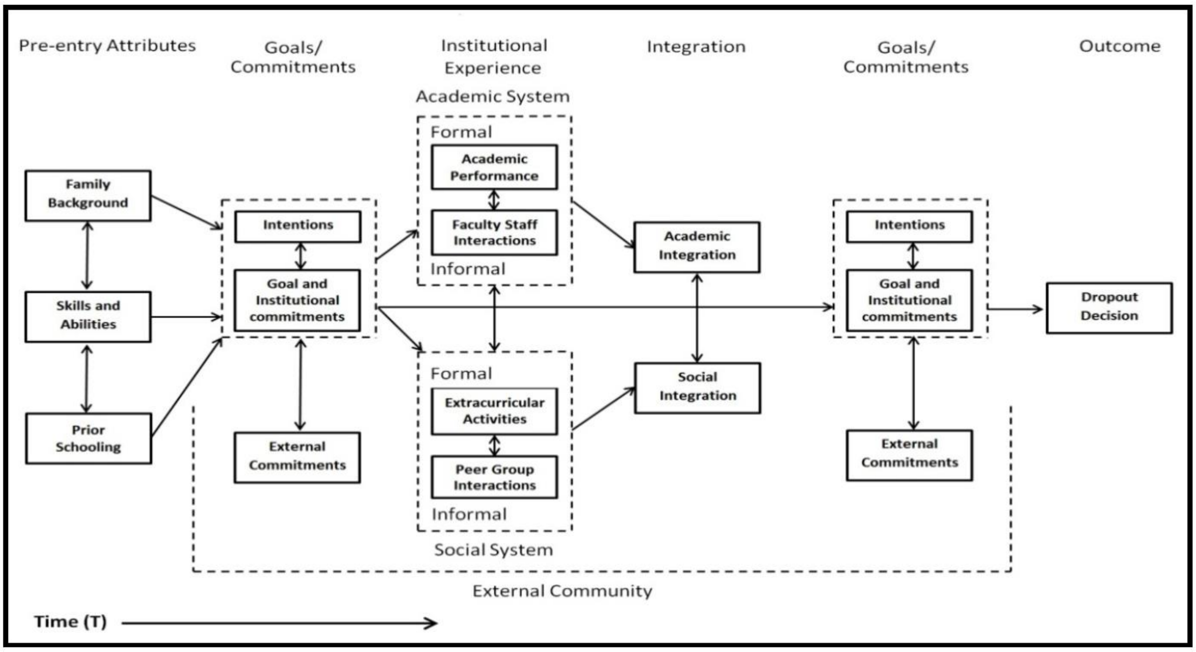
Commitment to objectives is also associated with the scholar's individual characteristics. This commitment to objectives of completing university studies largely influences the determination of those students who persevere in their university studies. Whether determined in terms of scholastic strategies, scholastic prospects, or vocation prospects, the advanced the level of strategies, the more probable is the scholar to remain in university (Tinto, 1975: 102).

Equally important are the varying forms of academic integration in identifying scholars who will persist at university and those scholars who will withdraw from university. Thus, persevering with university education should be viewed as the result of a longitudinal progression of relations between and every scholar and the university establishment (for example, interaction with fellow scholars, the faculty and the governance) in which the scholar is registered. Making the assumption that there are no changes external circumstances, departure from university is considered to be the outcome of the person's understandings in the educational and communal arrangements of the university. Therefore, an individual scholar's assimilation can be determined in terms of both his/her academic achievement and his/her academic advancement during the university years. Academic achievement is inclined to be the most noticeable form of incentive in the academic arrangement of the university as it an extrinsic form of incentive of the scholar's involvement with the university, and can be used by individuals as palpable capitals for future scholastic and vocation flexibility. Intellectual growth, on the other hand, signifies a more intrinsic form of recompense that can be observed as an integral part of the individual's personal and educational growth. Whereas intellectual growth can be seen as the person's appraisal of the academic arrangement, academic achievement mirrors, in part, the view that the scholar is also being assessed and judged by that arrangement, an assessment of the scholar's qualities and accomplishments in relation to the arrangement's ethics and intentions (Tinto, 1975: 103-104).

The concluding description of Tinto's Model of Institutional Departure (1993) mentions that universities are made up of two arrangements: educational and communal. Scholars need to be assimilated into both organizations to persevere in their educational organizations. Educational assimilation can be assessed by the scholars' grade attainment and academic advancement, while communal assimilation is determined by the scholars' relations with the university community (peers and faculty). The model proposes that a scholar enters university with some objectives and obligations. The scholar's pre-entry qualities, which embrace the scholar's family circumstances, abilities and talents and previous education, shape these early objectives and obligations. According to the model, the scholar's encounters at university (educational and communal assimilation) will constantly adapt (deteriorate or reinforce) his or her level of early objectives and obligations. The model proposes that the ensuing (modified) level of objectives and obligations affects the scholar's choice to stay in or depart from university. The foremost alteration that Tinto added to his model was the proposition that the level of the scholar's external obligations, such as family and job obligations, influences both the early and ensuing level of his or her objectives and obligations (Aljohani, 2016: 6, Tinto: 1975: 94)

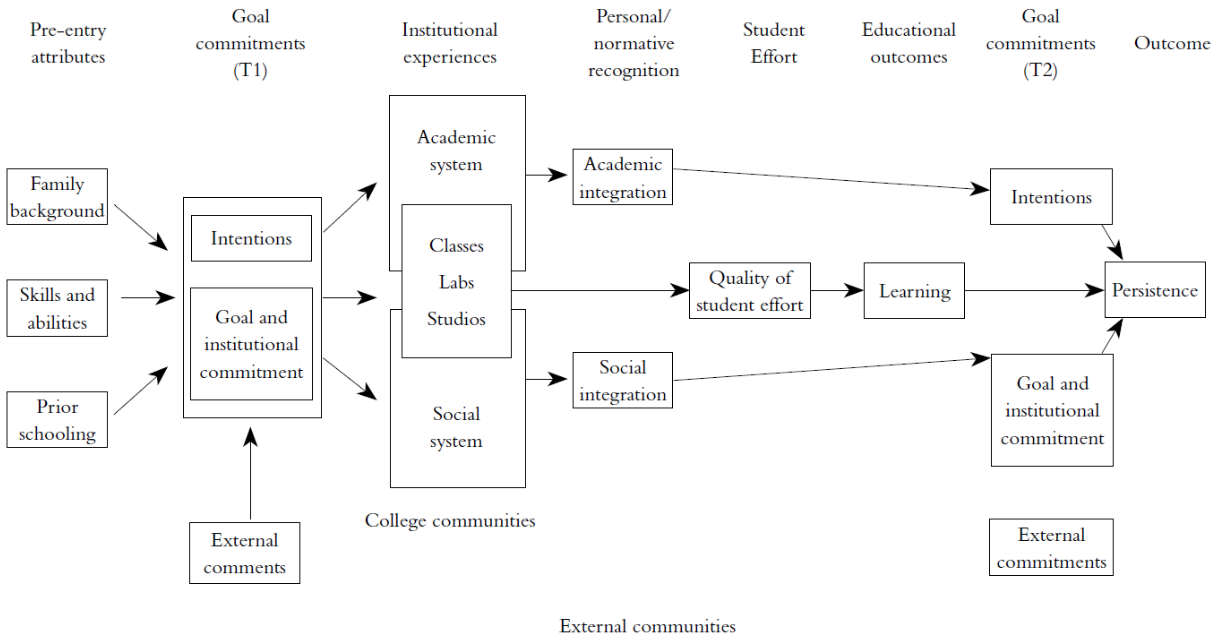
Nicoletti (2019: 58) considered Tinto's model proposing combining data associated with:

- particular attributes of an individual, his/her pre-university skill, his/her family background/environment and
- his/her assimilation into the university system and the establishment's social structure which, in a way, reflects and effects his /her commitment to the course and commitment to the institution (Nicoletti, 2019: 58).



Picture 2. 1: Tinto's Institutional Departure Model (Aljohani: 2016: 6).

Moreover, Schreiber, Luescher-Mamashela, and Moja (2014:1-2) point out that Tinto's revised model of student attrition associates the pre-university entry characteristics of a scholar (such as family experience, talents and skills, preceding schooling) to the institutional involvement and eventually to educational results, student retention and success. Key descriptive factors in Tinto's revised model are the scholar's objectives, aspirations and obligations; scholars' institutional encounters related to the educational and the societal system; educational assimilation and social assimilation; and the quality of scholar endeavour and learning. Tinto portrayed it as an "interactive model" of principally "sociological" character



Picture 2. 2: Tinto's revised model of student attrition (Schreiber, Luescher-Mamashela, & Moja, 2014: 2)

2.3.3 Bean's Student Attrition Model of 1980 and 1982

Bean alternatively employed the theoretic assessments of studies of turnover in work organisations; predominantly the work of Price in 1977. Worker throughput is explained in the novel throughput work of Price (1977) as the extent of individual drive through the affiliation border of a communal arrangement. In this model, Bean contended that the procedure of scholar attrition in educational organizations is comparable to the procedure of employee throughput in employment arrangements and that scholars and workers depart for analogous motives. He stated that his model had in common with worker throughput models the supposition that scholar and worker satisfaction, and consequently their perseverance, is influenced by organisational elements (Aljohani, 2016: 7, Burke, 2019).

To additionally fine-tune the worker throughput procedure to the setting of university education, Bean substituted the salary component, which is a substantial pointer of worker throughput, with four educational pointers: student Grade-Point Average (GPA), expansion, recognized excellence and applied worth. Therefore, the Bean's Student Attrition Model of 1980 comprises the following four classifications of components: dropout as a reliant component, fulfilment and institutional pledge as superseding components, the organisational elements and the circumstantial components (Aljohani, 2016: 6). Bean added to the work done earlier and developed the Conceptual Model of Dropout Syndrome in 1985, and mentions the Academic Factors ,Social Psychological Factors and Environmental Factors variable. These can impact the scholar's notion to the extent to his/her institutional pledge will reveal the scholar's personal affection to the institution stretching into the future (Nicoletti, 2019: 56).

2.3.4 Pascarella's Student-Faculty Informal Contact Model of 1980

Based on the theoretic models of Spady of 1970 and197, and Tinto's work of 1975 that postulated that scholar interface with faculty associates is an essential variable of scholars' assimilation with the communal and educational organizations of their institutions, Pascarella assumed that scholars' more casual contact with faculty associates could upsurge the level of their institutional pledge and thus consequently reduce the danger of departure. However, Pascarella also argued that there is not much proof from preceding readings to support the straight impact of scholar-faculty casual interaction on scholar perseverance (Aljohani, 2016: 8, Nicoletti: 2019: 54-55).

Pascarella's Student-Faculty Informal Contact Model relied on the opinion of the scholastic worth and advantage of scholar-faculty non-class relations, the notion of academic organizations as being social organisations and the ethical bearing which accentuated the prominence of college influences outside the dissemination of truths and information (Aljohani, 2016: 9). Theoretic models of student attrition also envisage that enhanced interaction between scholars and fellows will result in improved levels of perseverance, pride, and accomplishment
(Bean and Kuh, 1984: 461).

The Student-Faculty Informal Contact Model is a longitudinal model that postulates, among other advantages, the confident associations between the extent of scholar-faculty casual interface and scholar retention, particularly in the first year. The eminence of the casual scholar-faculty non-classroom interaction is swayed by a diversity of aspects comprising early scholar differences, the faculty ethos and classroom practices, peer-culture connection and the scope of the organization (Aljohani, 2016: 9).

However, although the model considered the university encounter and other institutional features, it highlighted the role of scholars' distinct differences, such as the scholars' characters, aptitudes, instructive and specialized ambitions, previous education attainment and involvements and the features of their families and home. Moreover, Pascarella contended that there are diverse methods of scholar-faculty interface that have diverse stages of impact (Aljohani, 2016: 9).

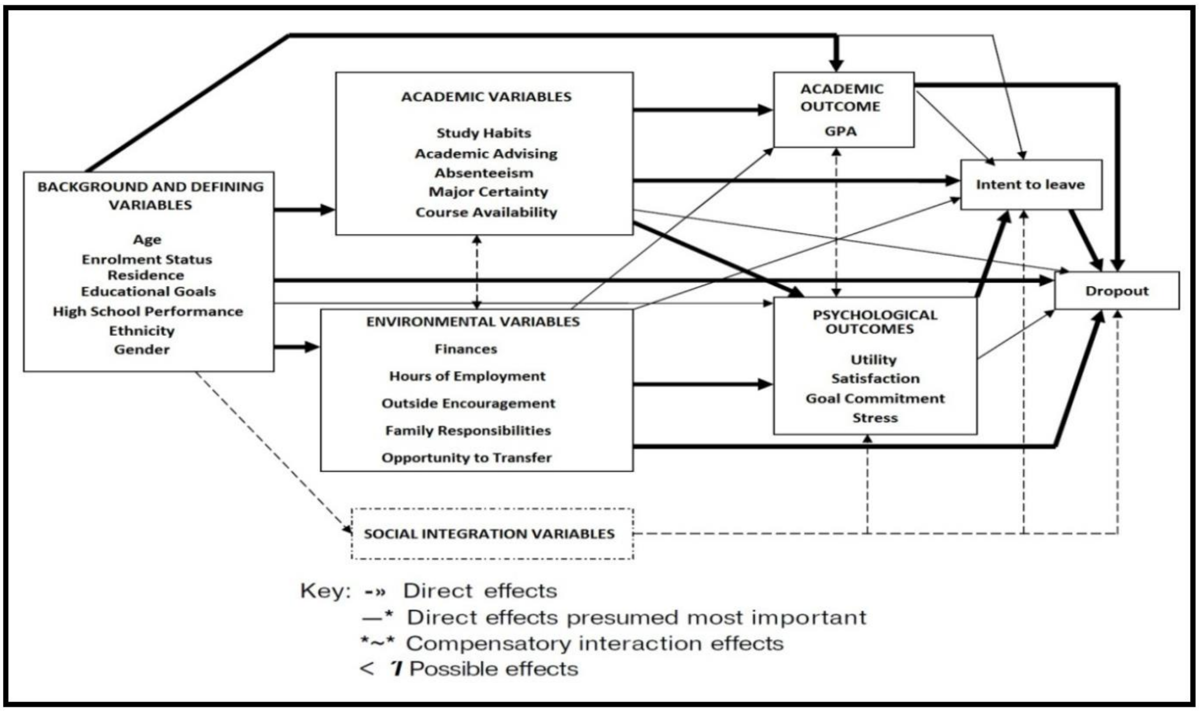
2.3.5 Bean and Metzner's Non-Traditional Undergraduate Student Attrition Model

Bean and Metzner argued that the Non-Traditional Undergraduate Student Attrition Model has an entirely unique construction, though it shares comparisons with preceding studies. The Non-Traditional Undergraduate Student Attrition Model stresses on a diverse kind of scholar: the non-traditional traveller scholar. Metzner specified that, while preceding models have stressed the significant part of communal assimilation within the educational organization on the scholar perseverance procedure, this feature has a trifling impression on non-traditional scholars. Fairly, non-traditional scholars appear to be influenced primarily by environmental reasons, comprising family pledges and other external accountabilities (Aljohani, 2016: 9).

In this instance, Bean and Kuh (1984: 463-466) mention that more faculty-scholar interaction leads to higher scores is drawn from the following theories:

- faculty members view attach great value to their subjects
- faculty members recompense chosen scholar performances (e.g., accomplishment) that suggest an acknowledgment of faculty ideals, the incentive often taking the form of high scores
- faculty have the best socializing impact on scholars with whom they have casual, out-of-class contact as well as in-class contact
- increased scholar-faculty interaction should lead to enhanced socialization of scholars to faculty principles and adherence to institutional standards, including distinction in academic accomplishment, hence, good scores.

Academic assimilation is defined as interest, inspiration and belief in the scholar's role, and perception that one reasons like the faculty (Bean and Kuh, 1984: 463). Bean and Metzner contended that since the most acknowledged theoretic models of scholar attrition were grounded on social standpoints and the absence of social assimilation was one of the distinct features of non-traditional students, there was a desire to elucidate the attrition procedure of such scholars from an altered theoretical standpoint. Thus, Bean and Metzner's Non-Traditional Undergraduate Student Attrition Model postulated that non-traditional students encounter pressure from their environmental that embraces additional interface with external environmental influences and less interface with the affiliates or actions of the environments of their educational organizations. Thus, the model provides more prominence to external factors than to institutional socialisation influences (Aljohani, 2016: 10, Bean and Metzner's conceptual framework of Non-Traditional Undergraduate Student Attrition Model is grounded on four sets of components: educational achievement, the resolve to depart, circumstantial factors and definite components and, most prominently, components concerning the environment. Foremost, concerning scholars' educational achievement, the model postulates that scholars with lower educational achievement are more probable to depart. Additionally, although high school results do not have a direct influence on scholar attrition, the educational achievement of undergraduate scholars is directly influenced by their educational achievement in high school. Subsequently, scholars' intent to depart is affected more by mental outcomes than by educational components. Thirdly, scholars' high school accomplishments and their scholastic objectives, among other components from other classifications, are the background and crucial components that are projected to effect scholar perseverance. Fourthly, conferring to the model, scholar attrition is mostly influenced by environmental components such as funding, hours of working, external reinforcement, family accountabilities and the prospect to relocate (Aljohani: 2016: 10) According to Bean and Kuh, 1984: 465) caution that it should we should bear in mind that no evidence exists to propose that scholars who intend to transfer continuously have low marks. There are thus more variables that influence the scholar's decision to drop out of his/her studies.



Picture 2.3: Bean and Metzner's Non-Traditional Undergraduate Student Attrition Model (Aljohani: 2016: 10).

2.3.6 The Student Retention Integrated Model of Cabrera, Nora and Castaneda of 1993

Cabrera, Nora and Castaneda's Student Retention Integrated Model presented a recommended combinative outline by amalgamation of the components of the two eminent student retention models of Tinto of 1975 and Bean's work of 1982; albeit with some adjustments (Aljohani, 2016: 10). The conclusions of Cabrera, Nora and Castaneda's study showed that the amalgamation of the two models of Tinto and Bean presented an enhanced clarification and appreciation of the scholar attrition progression. Furthermore, the arithmetical examination established that environmental components have a more multifaceted function in the scholar retention method than was observed by Tinto (Aljohani, 2016: 11).

Finally, Cabrera, Nora and Castaneda suggested that educational establishments, when developing scholar retention strategies and approaches, should focus on the components that intensely inspire scholars to persevere in their academic programmes and pursue to address the previous behaviour of scholars towards departure. They also emphasized the significance of constantly monitoring and revising these retention strategies and strategies by the research divisions of the educational organizations (Aljohani, 2016: 11).

This study is inclined to Tinto's Institutional Departure Model and Bean and Metzner's Non Traditional Undergraduate Student Attrition Model. This stance stems from the fact that the hypotheses of this study, namely the scholars' home environments, the environment at university and registering for a programme which is not the scholars' first choice of study, are in line with the afore-mentioned models. This will be explained in detail later in this study

2.4 ATTRITION: SOUTH AFRICAN PERSPECTIVE

A lot has been written on attrition in South Africa. To this end, reference is made to Bitzer & Troskie-De Bruin (2004: 119) who conducted a study that measured first-year student sensitivities at one South African university by employing Tinto's Student Integration Model. They began by articulating that one way to engender valuable evidence, for both the schooling segment and higher education establishments, about scholars who persist with their scholarship after school, is to measure scholars' discernments of themselves. Moreover, Bitzer and Troskie-De Bruin (2004: 119) modified and applied the description of the talent-development or value-added opinions of defining higher education excellence is de. Particularly, the focus was on the probable connection between prior-university schooling occurrences and probable first-year academic accomplishment at one higher education establishment. Once dependable profiles of these scholars have been determined and connected to scholars' academic accomplishments, investigations may contribute to forecasting influences connected with the perseverance of first-year scholars and retention proportions in higher education.

Bitzer & Troskie-De Bruin (2004: 119) further allude the fact that higher education establishments have long functioned with the viewpoint that only those suitable for higher education will be successful. Those scholars who have the aptitudes and abilities cultivated by auspicious or privileged backgrounds will flourish and those who do not, will discovery something else to do. In an age of mass and progressively affluent higher education, however, this viewpoint does not hold well. A dissimilar opinion of what institutes quality in higher education is required - a view that not only acknowledges augmented diversity of scholars, but also asks questions about the procedures that underwrite fruitful delivery in terms of the outcomes essential of higher education. Thus, to evaluate the scholars' educational progress, predominantly on accomplishment of their undergraduate studies at higher education establishments, applicable data about scholars must be gathered before they begin their higher education involvement. Once a consistent profile of each new scholar, as well as scholars cooperatively, has been recognized, educationists can advance to offer proposals as to the preparation, organising, deploying and assessing of the experience feature. Knowledge about the numerous varieties of involvements the scholars are subjected to, and the advantage (or absence thereof) resulting from them while scholars take part in higher education, is imperative if any beneficial extrapolations are to be made.

Since educational establishments contrast in relation of the scholars they appeal to, it is essential to regulate scholar characteristics upon entrance, permitting for predisposition in involvements. Dependable and effective procedures are thus desired to resolve the worth that diverse higher education establishments add their incoming undergraduate scholar populaces. In South Africa, no all-inclusive approach to measure the magnitudes of student advancement across establishments is in existence. In the light of the cumulative importance on quality and efficiency in higher education, as well as general education outcomes that are to be endorsed by educational programmes, it is of the supreme significance that efficient contributory-progression-and-consequence-valuation approaches should be explored and piloted. This is desirable not only to supplement existing quality assurance procedures that are concentrating mainly on consequence-valuation measures of institutional efficiency, but more significantly, to accentuate the quality of scholar advancement that is realized (Bitzer & Troskie-De Bruin, 2004: 119).

The transformational opinion of educational quality is starting to change only gradually in South Africa. Higher education establishments in South Africa are progressively obliged to ask interrogate issues such as:

- What is the contribution of higher education involvement to student advancement, separately from supplying scholars with a qualification that possibly will or possibly will not address the professional or societal expectations?
- To what degree does a university or technikon attendance reveal the unexploited dimensions, the diverse aptitudes, special characteristics, and the influences of intuition, originality, concession, decision-making and oratorical attributes that are undeveloped in the new cohort of scholars that make up the miscellaneous campus populaces?

- Are general education conclusions actually being realised, pledged and confirmed, and additionally, could the comprehensive growth of scholars be enhanced, seeing that education at all stages finds itself in a progression towards transformation? (Bitzer & Troskie-De Bruin, 2004: 119)

Bitzer & Troskie-De Bruin (2004: 123-124) clustered their findings into academic factors, general factors and social factors. These will be deliberated upon below:

2.4.1 Academic factors

The out-of-class period requirements of any academic programme in the first year of study mandates considerable additional hours than the six of academic actions on a weekly basis and inadequate endeavour is frequently the motive for non-fulfilment. A typical university first-year academic programme comprises of at least two class contact sittings per subject and one hands-on or seminar on a weekly basis - each having the length of 50 minutes. First-year students register for at least of five academic programmes, which infers approximately nine hours' mandatory academic pursuit on a weekly basis at first-year level. For respective interaction session lessons are eligible to assume double the period used for groundwork and self-learning at home. This denotes that scholars should spend a minimum 18 hours on a weekly basis studying and on homework. If interaction sessions are encompassed with study and homework, and a 30-week, 1 200 theoretical hours' year is measured, a total of 40 theoretical hours per week is mandatory. The variance between the time-on-spent-on-a-task during their grade 12 year and the time-on-spent-on-a-task that essential during the first year at university, as specified by the mainstream of respondents, is a substance of alarm. This might well be an imperative motive why scholars fail academically or even discontinue their studies during the freshman year.

The Tinto Model backs the conception that scholars' observation of the workload regulates the extent of their determination. A very minor proportion of respondents in this case had complications with the assignments at school. They possibly modified the quantity of hours spent on homework and schoolwork to their observation of the requirements of the workload. Workload is one of the influences that effect the academic variation process during the freshman year in higher education. The hazard with the precipitous upsurge in time required to manage with the workload at university, is that scholars are not able to acclimatize successfully, either because they do not comprehend the requirements of their assignments suitably or because they are unable to succeed with their time management skills efficiently. In the present study some participants indicated that they had difficulties with the assignments at school, which might be a suggestion that the other candidates have an incorrect insight of the exertion desired. If this improper decision regarding the demands of the academic workload continues during their freshman year, the probabilities are slender that these entrants will prosper academically.

Students should have the occasion at school to evaluate the quantity of exertion desired for diverse academic responsibilities in amalgamation with actual learning approaches for each explicit task. Even if they do not consummate the full variety of responsibilities but choose a judicious quantity from a broader assortment, the experience with and the conversation on the requirements of each task will assist the expansion of students' aptitude to evaluate workload more persuasively.

Students' confidence in their aptitude to persevere gives a suggestion of their academic self-esteem, which is an essential feature in their efficacious academic amalgamation into higher education. The positive rejoinder of the mainstream of the students affords a comprehensive base for, and designates the frankness to, and anticipation of positive, educational involvements in the higher education setting. The alternate understanding of the students' rejoinder is that they recognize from previous practice in problematic learning circumstances that they are talented enough to persist and prosper. Such experiences would also shape their academic self-esteem.

2.4.2 General factors

Information literacy plays a significant part in both undergraduate and postgraduate studies, respectively. The usage of computer databases in pursuit for, and retrieval of, information is only part of being knowledgeable about information. Fundamental skills in the procedure are the essential valuation of information, both for preliminary assortment and for the choice regarding the quality of the fillings, as well as the amalgamation of information from numerous sources. Though most scholars designated that they were self-assured in handling information well, several of them will possibly learn that their apparent ability is not imitated in the symbols they obtain for assignments. This is conceivably due to an incorrect perception of the full inference of information literacy and of what is obligatory at higher education level. The large number of a certain proportion of students, who had no knowledge of using the internet, is possibly due to an absence of prospects because of economic influences at home and deprived amenities at school, rather than to an absence of curiosity or an incapability to do so.

This is not essentially the situation with the large proportion of female students who designated that they consider their computer mastery to be simply regular or below average. All students should recognise the importance of acquiring their ability to make use of electronic media and should be stimulated to use all available opportunities to develop these skills.

The connexion between the responses of some candidates on items selected as academic and general factors is notable. In some cases, this indicates respondents lack of insight into what is anticipated from them, or over-belief in their own capability. This could be due to their encounters and experiences in the school setting. Students who attended small, pastoral schools could have performed well in contrast to their peers. At the time of the investigation, they had not yet had the prospect of testing their aptitude against that of the bigger first year group. This is not essentially a negative situation, provided that they attain intuition into the actual stipulations of the academic responsibilities that they encounter during their freshman year of study. Scholars' perception of a theoretical mission, their perception of their own capability and their self-assurance that they can prosper at a specific task, regulates the exertion they will put into the task. It is thus imperative that scholars should know how to evaluate their academic responsibilities and their own capability in an accurate way, and, that they should have the occasion to have mastery knowledges, which can reinforce their academic self-esteem.

The greatest contestation should be with last group of respondents in this study as it was discovered that these scholars often rated themselves at the lesser end of the weighbridge. This can be a positive discovery, because it designates that they possibly have a more accurate observation of what is anticipated of them scholastically and of their own capability. Nevertheless, these scholars should not be abandoned, because they possibly have the probability to prosper, but might get disheartened, and except if they have a robust objective or institutional obligation, they might choose to depart.

2.4.3 Social factors

For students to persevere in higher education either high academic or high social integration is essential. Students whose social self-esteem is low must be contingent on their academic capability to become amalgamated into the higher education environment. The probabilities that the other candidates will find it uncomplicated to become academically amalgamated in the conventional are thus slender. However, if they should be assimilated in a beginner-programme that requires finishing their academic freshman year over a two-year-period, before being accepted into the conventional academic second year, their probabilities to persevere are improved.

All of the above questions indicate the need for an all-inclusive, progressive methodology to the teaching of scholars (Bitzer & Troskie-De Bruin, 2004: 119)

Most recently, the scholar engagement concept has also shown the potential to rationalize the achievement of graduate attributes associated with citizenship competencies in researches conducted in South Africa and Uganda by the Higher Education Research and Advocacy Network in Africa (HERANA). In numerous developing and emergent country settings, where colonialism and apartheid, civil wars and political and socio-economic negligence have disjointed social formations over decades and heightened societal cleavages, Tinto's concept of integration poses an essential theoretical concept to think about scholar persistence and accomplishment in higher education. In the South African context, where countless scholars come from families in which they are the first generation to join higher education, the idea of association between personal, social and academic goals and the impact of external populations thereon, offers a central point for additional research. Tinto's formative "communities of learning" theory has also begun to alter discussions in student matters and teaching and learning in Africa, to refocus on the background impact as being exceedingly persuasive on academic advancement and learning (Schreiber, Luescher-Mamashela, & Moja, 2014: 3)

Tinto's work continues to be vital within a framework where the idea of "communities" often signifies absolute ethnic or racially formulated groupings and where consequently Tinto's concept of inclusive "learning communities" is an ideal rather than an applied reality. Where universities are rooted in socially divided contexts like our own, it is crucial that universities offer prospects for students to immerse themselves into a learning community that goes beyond limitations of multiple definition: social or disciplinary (Schreiber, Luescher-Mamashela, & Moja, 2014: 4)

Tinto was invited to South Africa by the CHE in 2013 to offer four lectures to higher education student matters and teaching and learning professionals. Since Tinto's CHE-sponsored tour, watchwords like "access without success is not opportunity", and "student success does not arise by chance" have come to be part of the prevalent terminology of student matters and teaching and learning professionals in this viewpoint (Schreiber, Luescher-Mamashela, & Moja, 2014: 3). In his opening remarks, Tinto (2014: 1) commented that, despite the fact that he's not only penned and undertook research on scholar accomplishment but also worked with numerous establishments both in the United States and respective countries in Europe, Asia and South America, that he's been working on this undertaking of refining scholar achievement for some 40 years, and having worked with over 400 institutions, it was improper for someone from a different country working in a distinctive scholastic arrangement to tell people from South Africa what methods they must utilize to encourage scholar success. However, Tinto indicated that the has noted some precedents of action that distinguish those universities that have augmented their accomplishment rates, especially among low-income scholars, and those that have not; and learnt essential lessons about what appears to differentiate those institutions.

Tinto (2014: 1) shared three important lessons that he had learned from his work:

First lesson: Offering scholars access with no support is not a prospect itself. With No support, educational, societal, and fiscal, too many scholars do not finish their courses of study. It is his view that once an establishment admits a scholar, it becomes obliged to offer, as best it can, the assistance needed to convert the opportunity provided by access to accomplishment.

Second lesson: The classroom encounter is pivotal to scholar accomplishment. Most scholars shuttle to campus. Few and far between have the opportunity of residing on campus. In the United States only 20% of scholars do so. Notwithstanding the movies you may have seen around higher education in United States, most of American scholars are employed, many attend part-time and an ever more are from low-revenue environments who do not have the opportunity, the moment, or the means to live on campus. For these scholars, certainly for most scholars, when they arrive at a campus, the first location they go is to the lecture hall. When lesson is over, they depart, because they ought to. It follows that nevertheless how we define scholar accomplishment, however we assess it, the one place accomplishment must arise is in the lecture hall of our campuses. For the majority of scholars, the lecture hall is the only area where they connect with each other and participate with their contemporaries and faculty in educational endeavours. Subsequently, however we think about the approaches of stimulating accomplishment, our efforts must commence, but not end, with scholars' lecture hall encounters. Remember the object of our work is not simply that scholars are retained, but that they understand while begin retained. Scholar learning is the purpose of academic staff; retention is only a means through which it occurs.

The third and final lesson: Advancement in institutional rates of scholar achievement does not occur by chance. It is not simply the consequence of good plans; although good plans are clearly a prerequisite, advancement in rates of scholar achievement entails more. It involves an deliberate, coordinated and consistent set of policies and measures that synchronize the work of numerous programmes and people throughout the campus; measures that are maintained and scaled up over time and to which resources are distributed. There is no magic antidote to improvement. It simply takes time and continuous endeavour.

Herman (2010: 46-) further outlines the following causes of attrition among PhD scholars:
Work commitment: Discord over time, as well as over vitality, were the greatest characteristics for late or non-completion. For those who were employed full-time while studying part-time, it was manageable when the PhD topic was correlated with their work. Students battled to balance out work, study and family. Yet, when options had to be decided, the PhD studies often took last spot.
Family responsibilities: In their remarks, very few scholars mentioned their family obligations. They usually noted the burden of balancing family life with work and study, particularly when dealing with the unforeseen, such as sickness, death, divorce or loss of income.
Financial/funding problems: A lack of ample funding increases scholars' fears as to whether they have made the right preference in pursuing a PhD, especially when they have families to support.
Academic challenges: For some scholars, engage in a PhD, especially after a break of 10 years or more, was a huge challenge. A frequent grievance was a lack of research proficiencies or

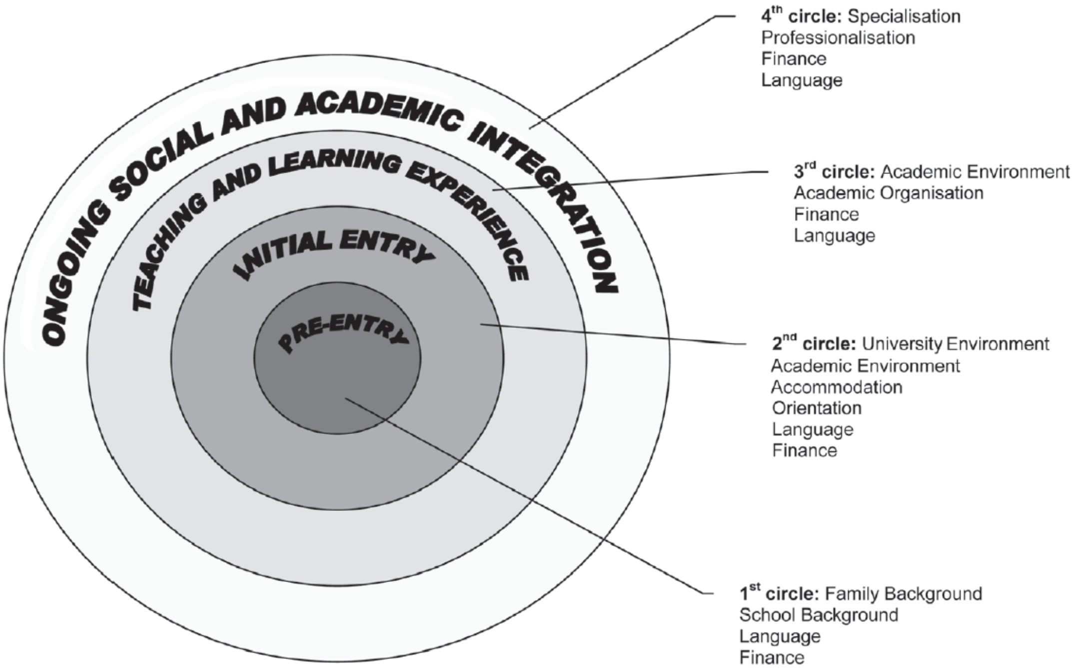
training and the challenges of conducting the research due to a dearth of access to apparatus and proficiency. For some scholars, personal inspiration or psychological factors, such as deferment and conscientiousness, were perceived as impediments to completion.

Facilities and resources: Scholars' provenances to attrition include opaque facilities and properties, such as defective equipment and unobtainability of library resources or books, internet time, computer, operating space and telephones.

Supervision: Scholars contended that a lack of communication with, and restricted access to, the supervisors contributed to their attrition. They noted that their supervisors gave the impression to be overburdened with teaching or with the number of scholars they supervised. A substantial number of scholars maintained that the time it took to obtain feedback from supervisors had severely hindered their progress. It was understood that the inaccessibility of the supervisors aggravated the scholars' feelings of solitude, especially when there was little interface with peers or other academics.

The South African context: Scholars attributed some of the barricades to the attainment of the award to real-world problems, among them the elevated level of lawbreaking in South Africa and their experience of distressing proceedings, such as homicides, break-ins at home, or hijacks ("I left my data in the car"), stealing of computers and other equipment, leading to a forfeiture of research time.

Given the fact that there is an increasing number and diversity of scholars accessing higher education, Jama, Mapesela and Beylefeld (2008: 992) presented a theoretical model depicting the 'circles of progression' of a university scholar in a South African perspective. This model described the advancement of a scholar from pre-admission (school and family environment), the early admission into university (first few weeks/orientation), admission into university (teaching and learning environment) and until conclusion of studies. More importantly, Jama, Mapesela and Beylefeld (2008: 992) ask a pivotal question: do the stakeholders really know who these scholars are before even thinking of enhancing their learning and teaching? This study contends that this question should be the starting point of any intervention strategy employed to enhance the scholar experience and thus reduce attrition, for what is the point of coming up will all intervention strategies if the universities do not under the scholars they are meant for. Thus, the Circles of progression as articulated by Jama, Mapesela and Beylefeld (2008: 999-1002) explains advancement of a non-traditional scholar from one stage of academic life to the other in the following fashion:



Picture 2.4: Retention theory for non-traditional scholars: Circles of progression (Jama, Mapesela & Beylefeld: 2008: 999).

First circle: Pre-entry: Non-traditional scholar commences the path of scholarly life in the pre-entry circle. In this minor circle, some non-traditional scholars find themselves within a family environment without or with limited reserves and encouragement to support them with the assimilation in the second circle. Neither has the school experience endowed the scholar with the required proficiencies to assist with the academic assimilation into university life Currently the main apprehension in the school arrangement is to yield good matriculation outcomes without appropriate growth of the assistance desirable for academic accomplishment, such as language proficiency. In most circumstances, non-traditional scholars study English as a subject and learn most of the other disciplines in English, even though they lack the basic competency in reading, writing, listening and speaking (Ayliff and Wang, 2006: 392). The compounded financial complexities of non-traditional scholars often begin in this initial circle because they and their family lack awareness about fiscal arrangements and how to access these programs. In some cases, the scholar and the family do not even appreciate that this phase will have fiscal inferences for them (Johnstone, 2004: 12). In certain occurrences, some of these scholars have been exempted from paying school fees and they suppose the same will occur in the university. Commonly, towards the end of this phase, scholars are highly determined, especially so when they receive their matriculation outcomes and realise that they have access to the next circle of their educational life (Johnstone, 2004: 12).

Second circle: Initial entry: Movement into the second circle is a crucial phase referred to as primary entry into the communal and educational life of the university. Social assimilation entails a new setting in a big city and campus with new people from diverse experiences and cultures. Some scholars, who are from small schools in countryside areas, have never been exposed to a culture distinct from their own (Toni, 2002: 8). Though universities have orientation programmes for the societal and educational assimilation for all new scholars, the events in these programmes are often very rushed and scholars are inundated with a lot of information with which they are supposed to absorb. Scholars are often swamped by this type of experience (Swail, 2006: 3). In most instances, scholars who can afford to make use of university lodging attend these programmes. Commuting scholars, on the other hand, often fail to attend these programmes. Moreover, the quality of these programmes leaves much to be desired (Cuseo, 2003: 5). The main conclusions of a study conducted at the UFS to appraise the first-year orientation programme suggest that the programme has inadequate effect on the preparation of scholars for higher education. Another vital finding of the study is that only 18 per cent of scholars attend events of the programme (Strydom, 2007: 3). It is in this circle that the fiscal challenges of the scholars begin to take their toll when scholars realise that they need to obtain fiscal support. Even if the scholars have guaranteed fiscal support in the form of loans or bursaries, challenges arise because some loans are usually not adequate to cover the overall costs of the university and some bursaries are paid out too late (Bukula: 2004: 2). In certain instances, some scholars do not obtain any aid at all because of late applications or because are not eligible for the aid. At times, the combined fiscal obstacles are so serious that these scholars do not have lodging, food and modest clothes. An additional confounding factor for non-traditional scholars is that some of them have never been removed from their families and thus have never been autonomous. This departure can lead to feelings of unease and exasperation. It is also at this stage that scholars need to make new friends. If they fail to do so, feelings of estrangement set in (Strahan 2001, 3). Above and beyond the certainties of social assimilation that characterises the initial entry, scholars now start to be assimilated into the university environment. Here they are presented to the academic establishment, constructs and dialect of the university (Clift 2003, 10). Once again, this orientation is done in a very rushed fashion and scholars are required to comprehend lots of information, which they will be expected to apply in the next larger circle of teaching and learning, where the real enterprise of university commences (Swail, 2006: 3).

Third circle: Teaching and learning experience: The progress of any scholar into the next circle ushers into the certainties of academic life. The certainties of this new situation mean that scholars are presented to their specific learning programmes. It is in this circle that scholars begin to learn about, among others, new techniques of instruction, regulations and rules and assessment techniques (Toni 2002, 19). Additionally, scholars have to get accustomed to big and diverse classroom procedures, lecturers and peers from different backgrounds and study resources which are organized in unique formats for every subject. Besides having to comprehend subject-specific conceptions, scholars have to understand the new language of teaching and learning such as a semester, semester mark, module mark, a module, summative assessment and formative assessment. If the fiscal challenges of a scholar were not solved during the preceding circle, the teaching and learning environment continues to generate obstacles such as lack of study material. Likewise, because of fiscal challenges, commuting scholars might fail to attend classes and/or might not be able to attend early or late classes (Bennet, 2003: 126). Some commuting scholars stay so far from the campus that when they arrive at home, they are too exhausted to study. Besides skipping classes and living far, commuting non-traditional scholars stay in dwellings where the family conditions do not allow the scholar time, space and the encouragement to study because the family itself does not understand the educational world (Clift, 2003: 5). The effects of difficulties confronted in this circle include demoralization, loss of self-esteem, lack of self-confidence and consequently poor academic accomplishment (Strahan, 2001: 3). Poor academic accomplishment, in turn, is a critical factor deciding the movement into the greater and last circle of academic assimilation.

Fourth circle: Ongoing social and academic integration: In most instances the last circle, where scholars start to specialise within a particular learning programme, is typically the last stage of academic assimilation. It is in this stage that scholars are trained for their roles as professionals or specialists in a specific field. They are required to apply the theoretical proficiencies they learned in the preceding circle in order to obtain professional or special proficiencies. As in the previous circle, scholars are further presented to a new academic dialect, a new academic situation and they are expected to apply higher-order critical philosophy skills (Lau 2003, 5 of 9). Although scholars are about to complete their studies at this stage, they still need fiscal backing. The funds required at this stage might be exclusively for apparatus and travelling to various areas for putting professional or special proficiencies into practice. Lack of equipment and transport might thus unfavourably affect the academic accomplishment of scholars, even at this late stage of their scholarly life. Although academic assimilation is more important at this stage, social assimilation is still required as scholars still depend on the backing of their peers to adapt in this educational environment. Besides contemporary support, scholars also need excellent role models in their specific academic disciplines. If scholars do not have the backing from peers and role models, they might feel lonely (Martinez, 2003: 17). Like the situation in preceding circles, all the challenges encountered by the scholars in this circle might lead to inadequate academic accomplishment, and thus failure or departure.

Moodley and Singh (2015: 102-108) conducted a study that explored techniques in which the dropout rates can be decreased thereby boosting the throughput levels of universities in South Africa. What emerged was that an amalgamation of factors at the personal level and at the educational level were alluded to by many of the scholars for departing from university. These are:

Affordability: All the participants quizzed articulated unaffordability as being one of the justifications they departed from university. One more participant who had earlier qualified for the Rectors Award, which included his tuition and lodging fees in previous years, had to depart because he could not pay for his third-year fees. He had an immaculate academic record, however, his aspiration to complete his studies was cut short by a dearth of funding (Moodley & Singh, 2015: 102-108).

Lack of Academic Support: The replies from participants to a series of questions relating to their academic accomplishment and assimilation revealed that there is a shortage of academic support. Moreover, many of the participants questioned displayed the lack of ability to assimilate academically. For example, the response from one scholar was that in principle a revelation of the void that exists between matric and the first year of university which universities should accommodate by offering extended programmes. Correspondingly, the response from another scholar pointed towards the dependence on a lecturer which was symptomatic of the scholars' mind-set grounded on primary and secondary education which relied on the teacher to engage with the scholar, however at university-level, the crescendos of the learning arrangement change as tutorials are built-in to act as sustenance mechanisms which are intended to involve the student further into the subject material. Seven of the fifteen respondents who were first year scholars expressed displeasure with the manner in which lectures were organized. They felt they were dull and uninteresting (Moodley & Singh, 2015: 102-108).

Lack of Career Guidance: The various perceptions of inadequate career choice manifested here is evident of the various reasons that lead to scholars making uninformed pronouncements about their careers. In numerous cases the respondents mentioned either being pressured by a family member or a friend into enrolling for a certain degree programme. This eventually led to many students departing in the first year of study. One respondent who departed as a result of a poor choice in her career opted to attend another institution studying something entirely different. This participant is currently enrolled for a Master's degree. However, when the discourse is investigated it is evident that one cannot assume a statistical approach which defines concrete facts or responses that point to society's bigger structural procedures, but a more humanistic method should be considered which is subject-centred and captures the respondents' deep experience, inferences and meaning (Moodley & Singh, 2015: 102-108).

Lack of Self-discipline and Commitment: Several respondents were ill-equipped for the challenges of university both socially and scholastically. The failure to commit to their studies cost them their possibility at a better life. The respondents discovered that the academic void between high school and university far too broad to cope with. For this reason, many discovered it to be tricky to adjust. The new-found autonomy of being away from home intensified other problems these respondents were already trying to deal with (Moodley & Singh, 2015: 102-108).

First Generation Students: When questioned if other members of their family attended university, only four respondents were able to confirm this. The balance of the respondents was first generation students who did not have the moral backing from their families to persist through their challenges at university level. The psychological demands coupled with the pressures of university makes it more challenging to cope and for this reason, many students dropped out (Moodley & Singh, 2015: 102-108).

A discussion of the causes of attrition relevant to this study will follow.

2.5 HOME ENVIRONMENTS

The students' home environment has a pivotal role on their academic success. The home environment of students, in turn, is influenced by many factors such as, for example, the marital status of parents, family structure, the support provided family (financial, moral and otherwise), and financial status of the students' family. The important part of the bearing of the home milieu on students' education is acknowledged by Karbach, Gottschling, Spengler, Hegewald and Spinath (2013: 44) when they mention that, for example, the arena of educational psychology has progressively recognized the influence of the home setting on the scholarship and developmental processes scholars.

It is imperative to remark that the family environment factors of university students can be separated into soft and hard environmental features as articulated by Yu, *et al* (2015: 2-3). The soft family environment is separated into clear influences (part of parent, for instance, family rule and guidelines, and parent didactic idea) and implied influences (family ethos, parent-child association, and family member contact) Yu, *et al* (2015: 2-3) . The hard environmental influences comprise family make-up, education rank of the parents and the financial rank of the family Yu, *et al* (2015: 2-3).
The rates of divorce, concubinage and children being born to unmarried parents have made numerous children to arrive at the state-school system with little parental firmness and sustenance. Huffman (2013: 38) conducted a study which examined the connection of parental matrimonial status and student housing arrangements as pointers of student achievement, including attending, marks, and correction; the results of which proved that non-traditional family circumstances, for example, living with grandparents, aunts and uncles, give rise to an undesirable influence on student accomplishment Huffman (2013: 38). Many of the challenges faced by the families of students like instable occupation lack of dependable transport, divorce,

and family disputes were all discovered to influence student presence and achievement at school. Poor academic performance couple with unacceptable behaviour can result from an absence of social unity in the household (Huffman, 2013: 40). Additionally, population issues such as miserable Socio-Economic Status (SES), locality-level parameters, gender-bias, racial marginalisation status, and meagre parental schooling, for instance, have been reliably discovered to be associated with withdrawal from school (Jimerson, Egeland, Sroufe & Carlson, 2000: 526).

Jimerson, Engeland, Sroufe and Carlson (2000: 525-526) studied manifold forecasters of high school-leavers throughout their expansion amongst American youth. Their study employed data from a 19-year prospective longitudinal research of at-risk kids, and furthermore, their research was planned to additionally explore the developing processes and backgrounds that lead to abandoning high school studies Jimerson, Engeland, Sroufe and Carlson (2000: 525-526). Prior research highlighted that, among others, family factors could be associated with abandoning high school. Certain family variables that could contribute to dropping out of school included family factors such as the quality of parental–child connections, parental school participation, family routines and values and supervision of the child (Jimerson, Engeland, Sroufe & Carlson (2000, 525-526).

The study by Jimerson, Engeland, Sroufe and Carlson (2000: 527) further examined developing adaptation and the influences that may contribute to a path leading dropping out and provided a conceptual model of abandoning studies as a spirited developmental course that starts before children arrive basic education. Dropping out was thus hypothesized to occur because of present and previous developmental (i.e., practices and variations) conditions Jimerson, Engeland, Sroufe and Carlson (2000: 525-526). The developmental transactional model by Sameroff (1992) was used since in this viewpoint, early developing history is assumed some to have superiority, not because it unavoidably causes future outcomes, but because what the child takes forth from these involvements, in part, frames subsequent connections with the environment. Behaviour is continuously a result not only of current conditions but also of developing history Jimerson, Engeland, Sroufe and Carlson (2000: 525-526).

Yu *et al* (2015: 2) found the importance of the family setting as a foundation of risk features for depression amongst students at university. It is further cautioned that depression has constantly been recognized as a critical risk feature for suicide efforts among students at university, it can impact the value of life of student's university, and it can influence academic proficiency eventually resulting in students dropping out of university. On the contrary, Makola (2014: 38) refers to Holden (2001) who found that when exposed to stressors, it is inconceivable that such students are to consider suicide as their escape. Additionally, having intelligence for connotation assists scholars to endure being exposed to stressors (e.g. poor socioeconomic and poor background), thus averting or lessening the possible pressures connected to conditions Makola (2014: 38). In this way, the stressful conditions may still be present, however the student's capacity to deal with the stressors improves when a sense of meaning is related to it (Makola, 2014: 38). Given the above, it can be said that the impact of stress is debatable and thus requires more research.

Low-income families, like, for example, many Latino families in many United States (U.S.) cities, are frequently compelled to live in residences that accommodate many people that usually comprise of unconnected children and their parents, thus leading to overcrowding (Farver, Xu, Eppea & Lonigan, 2006: 197). Overcrowding, on the other hand, is related with disproportions in children's language development rates, reasoning abilities and communal functioning. Additionally, parents in crowded households were regarded as being less receptive to their children when compared to those who were living in less crowded homes (Farver, *et al.,* 2006: 197).

Furthermore, studies investigating the impact of family structure on academic achievement show that family structure such as the number of children has a resource dilution effect where parent's resources: economic, social, emotional, interpersonal, among others, are diluted with additional children in the household and the reason why children with many siblings have lower academic achievement (Chowa, Masa, Wretman & Ansong, 2013: 70-71).

Adjusting to life at university can takes an emotional toll on some FTEs. In a pilot study that investigated whether a cohort of first-year oral hygiene and dentistry students had experienced, the transition from school to university as emotional, McMillan (2013: 7) reported that one of the responses was that family support provided a continuity with the old life (school life). It provided opportunities for those from the familiar world of 'home' to support and enlighten. Students with family members who had been to university were able to draw on insight from these people. Their support was experienced as comforting. For others, family support was simply knowing that someone cared about your studies McMillan (2013: 7).

When referring to Chinese students, Yu *et al* (2015: 2-3) cautions that most Chinese university students are only children due to China's one child policy. They have to share a room with others for the first time and have to learn to get along with others when going to university. Consequently, they have to adapt to a collective life when they are at university. Furthermore, China's one child policy led to parents being protective, spoiling their children and are willing to tolerate mistakes, therefore Chinese university students tend to be more self-centred compared to former generations prior to the one-child policy Yu *et al* (2015: 2-3).

In an effort to understand the impact of living at home or living in residences on their studies, McMillan's study (2013: 9-10) mentions that students considered the pros and cons of whether it was easier to focus on academic work while living at home or living in residence. Their responses suggested that both contexts provided their own stumbling blocks. Students living at home highlighted responsibilities towards family members and the effect of these on study time, one respondent remarked that it is not always easy living at home because at times, family members are occupied with something that might hinder studying McMillan's (2013: 9-10). Moreover, studying while staying at home means one always must be considerate of family members. Students living in residence, while they are free of family obligations, indicated that new household responsibilities made finding time for academic work challenging. In this regard, respondents indicate that they were faced with the challenge doing everything for themselves, for example, they had to find time to study, to clean and dust. It was thus a huge adjustment for them McMillan's (2013: 9-10) .

2.6 SOCIO-ECONOMIC STATUS (SES)

When attempting to determine what the influence of socio-economic status (SES) is on academic performance, Sirin (2005:417) informs us of White's primary meta-analytic in 1982 that studied the written works on this topic by concentrating on studies available prior to 1980 which scrutinized the connection between SES and academic attainment and displayed that the relation differs considerably with a several count of issues such as the categories of SES and academic attainment measures Sirin (2005:417). Subsequent to the publishing of White's meta-analysis, numerous novel experiential studies have investigated the same association. However, the innovative outcomes of these are varying since their scope varies from a strong relation to no substantial association at all Sirin (2005:417). Hence, his meta-analysis attempted to offer an appraisal by investigating studies available between 1990 and 2000 (Sirin, 2005: 417). Sirin (2005: 417-418) further cautions that several main features distinguish the research available throughout the 1960s and the 1970s from that available in the current years Sirin (2005:417):

Firstly, there is the alteration in the way that academics concretize SES. Existing research is more probable to use a diverse selection of SES pointers, such as family revenue, the mother's schooling, and a quantity of family edifice, instead of looking exclusively at the father's schooling and/or profession Sirin (2005:417).

Secondly, there is social variation (in the United States), precisely in parental schooling and family edifice. Throughout the 1990s, parental schooling altered expressively in a positive way: Children in the year 2000 lived with healthier, educated parents than children in 1980. Similarly, decreases in family size were likewise obvious; only around 48% of 15-to-18-year-old children stayed in families with at most one brother/sister in 1970, in comparison with the 73% of the1990 Sirin (2005:417).

Thirdly, there is the emphasis on mitigating factors that could influence the comprehensive connection betwixt SES and academic accomplishment. With greater attention to background variables like race/ethnic grouping, environs features, and learners' level of grades, contemporary studies bequeath an extensive variety of data on the progressions by which SES impact transpires Sirin (2005:417).

SES, according to White's work of 1982, is determined by an assortment of diverse amalgamations of vectors, which has, in turn, shaped an indistinctness in understanding scholarly discoveries. The equivalent warrant could be made nowadays Sirin (2005:417). Many scholars use SES and societal grouping in the same breath, deprived of any explanation or amplification, to denote social and economic traits of learners. In universal concerns, however, SES defines a person's or a family's position on a grading in reference to accessibility to or command over some combination of valued merchandises such as affluence, influence, and communal rank Sirin (2005:417). However, there appears to be consent on the meaning of the multilateral character of SES that encompasses parental revenue, parental schooling, and parental profession as the three chief pointers of SES (Sirin: 2005:418).

Many experimental studies examining the connections among the elements of SES have displayed that the elements of SES are exclusive and that respectively they determine a considerably miscellaneous characteristic of SES that should be distinct from the rest Sirin (2005:417). Parental revenue as a pointer of SES represents the possibility for societal and financial resources that are available to the student. Parental schooling is taken as one of the steadiest features of SES since it is in general established at an initial age and inclines to be unchanged the same over time. The third traditional SES constituent, profession, is graded based on the schooling and revenue necessary to have a specific profession Sirin (2005:417). Home resources is not usually considered as the other three chief pointers. In the previous few years, though, scholars have pointed to the seriousness of several home possessions as pointers of family SES circumstances. These comprise household belongings, for instance, a study area, computers, and books, a, and the accessibility of educational amenities after school (Sirin, 2005:418-419).

Furthermore, McMillan (2013: 10) reports that the financial status of the students' family also affects them (students) emotionally, hence economics is regarded as a considerable limitation on students' encounters at a tertiary institution. At the most rudimentary level, impoverished students, in his investigation, experienced strain connected to living expenses McMillan (2013:

10). A responded remarked that was tough for her considering that she has to travel every single day to university. She went further to elaborate that because she lived far, she took taxis. She also pointed out that it is not burdensome if one lives in the proximity of the tertiary institution but commuting on the dual taxis is very costly McMillan (2013: 10). The impact of unemployment in South Africa is acknowledged by Dias and Posel (2006: 1) when they comment that South Africa is facing very high and rising rates of unemployment in the post-apartheid period. According to Malakwane (2012: 11-12), from 2000 to 2009, South Africa's joblessness degree was declared to be around 26,38% reaching a historic peak of 31,20% in 2003 in March (Quarterly Labour Force Survey, 2014: V). By August 2011, South Africa's joblessness rate mounted to 25,7% and in 2012, joblessness rate was at 25,2% Dias and Posel (2006: 1). The reality of unemployment in South Africa is further illustrated by the Quarterly Employment Statistics (QES) survey of June 2015 which displayed a reduction of 1 000 workforce from March 2015 to June 2015 and a yearly decline of 161 000 employees (-1,8%) from June 2014 to June 2015 in only the formal non-farming segment of the economy of South Africa (Key findings P0277 Quarterly Employment Statistics QES June 2015) (Quarterly Labour Force Survey, 2014: V).In addition, to illustrate the influence of joblessness on the attainment by the black population of South Africa, reference is made to a study by Mafiri (2012: 15) that investigated how to enhance the standard of living of the jobless. Here Mafiri (2012:15) reports that blacks have greater population expansion rate and thus a greater school-age group. There are more than a few issues suggesting that black folks take on average more time to attain any education level (inferior pass counts, education postponed during the demonstrations at the conclusion of segregation), black persons also have a much lower diffusion into developed levels of high schooling and university education Mafiri (2012: 15). It is thus inevitable that this high rate of unemployment will affect the education performance and attainment of those who are affected by it Mafiri (2012: 15).

De Witte, Rothmann and Jackson (2012: 235-236) conducted a study that investigated, inter alia, the affective experiences of unemployed people in South Africa' North West Province . Their study discovered that negative consequences of unemployment can be separated into personal and household implications De Witte, Rothmann and Jackson (2012: 235-236). Personal implications comprise of bodily and mental implications. Personal implications incorporate an upsurge in head pains; abdominal pains; slumber disorders; loss of strength; high blood pressure; cardiovascular ailment together with nephropathy De Witte, Rothmann and Jackson (2012: 235-236). Mental implications comprise amplified aggression, despair, nervousness, strain, irritation, dread, desolation, isolation together with communal remoteness, together with reduced self-confidence, life gratification, ambition points, attentiveness and individual uniqueness (De Witte, Rothmann and Jackson, 2012: 235-236). Domestic implications encompass an upsurge in marital mistreatment, spousal dissension, matrimonial despair, domestic dispute, child exploitation, a lessening family unity, and the welfare of children. This is over and above the fact that South

Africa's joblessness proportion was standing at a staggering 24,3% by 2014 (Quarterly Labour Force Survey, 2014: V).

Chowa, Masa, Wretman and Ansong (2013: 70) investigated the influence of domestic belongings on juveniles' scholarly accomplishment in the Youth Save experiment in Ghana. They referred to the fact that the extent of family context which initially comprised only parent's schooling and profession, has extended to contain family composition, parental participation, educational possessions in the household, financial features of the home counting affluence, and family's communal and ethnic wealth Chowa, Masa, Wretman and Ansong (2013: 70 . It is then not astounding, Chowa, Masa, Wretman and Ansong (2013: 70-71) noted, to find that the financial possessions such as revenue and possessions, which are pointers of parent and domestic SES, impact the juveniles' academic accomplishment Chowa, Masa, Wretman and Ansong (2013: 70). One way in which liquid asset ownership (those assets that are easy to sell or convert into cash) impacts the youth's scholarly attainment is via a family's capability to acquire school resources (for instance, textbooks and other desirable provisions) that can enable learning equally in and external of the schoolrooms Chowa, Masa, Wretman and Ansong (2013: 70) . Thus, parents can use liquid assets to make a helpful environment at home that nurtures scholarly abilities (Chowa, Masa, Wretman & Ansong, 2013: 70) .

To illustrate the impact of the students' home environment on academic achievement, attention is turned to Torenbeek, Jansen and Hofman (2010: 659) who studied the part of student variants and the apt between high school and tertiary education in explaining the achievement of first-year students. They also refer to the philosophy of educational efficiency model by Walberg (1981) which has three clusters of nine features that elucidate attainment. Among others, the above-mentioned model has the third group which is known as the psychological environment, for its part identifies the home environment (economic and social- rank of parents) as having an impact on student achievement (Torenbeek, Jansen & Hofman, 2010: 661).

The important role of parental support is supported by Makola and Van Den Berg (2008: 58) when they report that, the resources students have access to are indubitably related to academic performance, especially with regards to parents as a resource substantially linked to scholarly achievement and a perception of purpose, respectively Makola and Van Den Berg (2008: 58) .

To further highlight the important role played by the SES of families of students on their academic success from an early age, reference is made to Farver, Xu, Eppea and Lonigan (2006: 196-197) who studied the connection among features of juveniles' home settings and two school preparedness abilities: their oral language and social functioning. They report that, commonly, families with meagre-earnings, low motherly schooling, and inferior aptitude in the English language encounter increased obstacles, have diminished availability of possessions, and must handle superior strain levels, all of which decrease the probability of their children's school achievement Farver, Xu, Eppea and Lonigan (2006: 196-197).

Findings of a study by Mouton *et al* (2015: 8-9) are that:

- Fiscal obstacles make up the solitary principal hindrance to yielding additional post-graduate scholars in South Africa: Fiscal obstacles or inadequate funding has been demonstrated to be an immense obstacle for the majority of South Africans registered for university education Mouton et al (2015: 8-9).
- Fiscal obstacles are more predominant for black scholars at all points in the organization of university education: The evolution and conclusion rates are the bottommost for African scholars in comparison to the other ethnic groups. Equally, assumed that Caucasian scholars normally did not specify that they experience immense complications in either access to funding to pursue their scholarships, or matters concerning admission, one can carefully declare that that ethnic disparities with regards to admission of university schooling in South Africa still subsist Mouton *et al* (2015: 8-9). This designates that there are still momentous economic and socio discrepancies among historically privileged and underprivileged scholars in South Africa Mouton *et al* (2015: 8-9) .
- The association with a scholarly overseer was quoted as very significant in deciding by master's and Doctoral scholars younger than 30 years; and for all master's and Doctoral scholars as in comparison to all Honours students Mouton *et al* (2015: 8-9) .

The above findings are in line with what this study postulated, viz. that the home environment, access for convenience and the environment at university influence the academic performance of FTEs.

Finally, racial and cultural background of students can also impact their academic success or failure; and social standing (Sirin, 2005:420). This can vary one country to another. For example, in the United States of America, ethnic and social circumstance endures to be a cardinal feature in scholarly attainment since normally, with minority scholars delayed behind their White counterparts in terms of scholarly attainment (Sirin, 2005:420). Several reasons have been recommended to elucidate the lower scholarly attainment of minority scholars. Minorities are most likely to stay in low-revenue houses or in sole parent families; their parentages are probable to have lower levels of schooling; and they frequently attend under-financed schools (Sirin, 2005:420). In South Africa, on the other hand, white people are in the minority and black people are in the majority. Yet children from historically black townships attend superior-funded schools formerly earmarked for Caucasians under apartheid. To illustrate the latter point, reference is made to Hunter (2015: 41) who conducted research among school children from a previously black portion of the city who attended non-regional schools in formerly Caucasian-only-schools. Ethnic integration in the 1990s initially unchained the crusade of thousands of black juveniles to join non-regional schools. While it was foreseeable that black juveniles would commute to attend superior-resourced schools from which they were beforehand not allowed, few predicted that white children would commute so much to join diverse government schools. Hunter (2015: 41) develops, among others, a conclusion to make a broader argument: education after apartheid is progressively imperative to not only obtain academic credentials but figurative capital (particularly English vernacular) and societal capital (particularly societal networks).

Breier (2010: 657) conducted a study of student retention and graduate terminus at seven HE establishments in South Africa, concentrating on the University of the Western Cape which serves a large percentage of disadvantaged scholars. The study discovered that many scholars departed prior to completing a qualification because they were too deprived to continue. Additionally, the study showed that almost a decade after democracy, and notwithstanding the establishment of a National Student Financial Aid Scheme, scholars were still being barred on fiscal grounds (Breier: 2010: 662). When offered a range of reasons which might have impacted to their departure from the university and requested to rate these from 1 (‘not at all’) to 5 (‘to a very large extent’), leaver participants gave the greatest value by far to ‘I did not have funds to pay for my studies’.

2.7 ENVIRONMENT AT UNIVERSITY

In a heterogeneous nation like South Africa with its unpleasant history of apartheid, racial, cultural, ethnic and language differences, there can be anxiety and sometimes tension between different ethnic groups in an educational setting. To this end, in a paper that explored the degree to which parental principles concerning children and their provision and regulatory encounters match those of their children’s educators, Barbarin, Downer, Odom and Head (2010: 359) say there are greater rates of homebased–school disparity amongst Latinos and African Americans than European-Americans. Once children begin school, they will most probably be attached to a teacher who has a dissimilar ethnic/cultural context than them, thus subsequent alterations may occur in styles addressing people and actions, principles, and standards connected to behavioural prospects for children Barbarin, *et al* (2010: 359). Even though the above study was conducted among kindergarten children in the U.S, it mirrors what is happening in the South African education system with the former Model-C schools and previously whites-only universities of South Africa which have been deracialized after 1990.

As reported in Chapter 1, it cannot be disputed that the granting of access of the previously Caucasian-only institutes – schools, tertiary institutions and colleges – has been indispensable to providing prospects to at the very least a couple of scholars from amongst the formerly underprivileged to gain a comparatively respectable quality of teaching, though principally black students have habitually been casualties of prejudice and discrimination, and underprivileged scholars have discovered themselves having to adjust to an arrangement which was planned for students from relatively advantaged upbringings (Green Paper for post-school education and training, 2012:7-8). The latter statements are in line with what Barbarin *et al* (2010: 359) discovered when they show reference that in the U.S. the ethos of American schools inclines to imitate and be more in agreement with the principles and practice of European-American households. Therefore, for cultural minority juveniles, the wealth of their collections of knowledge system, morals, interpersonal styles and attitude refined and adjustable at home under one set of acculturation principles and practices often do not compete well with those in the instructive environment (Barbarin *et al*., 2010: 359).

When students are accepted to a university the assumption is that since such students have met (or exceeded) the minimum admission requirements, they have the attributes needed for one to succeed academically. Unfortunately, this is not always the case as Blunden (no date: 1) explains, many instructors expect students to be autonomous learners and to handle with the expectations of learning at university and the culture thereof. This expectation is cumbersome for most of the first-year scholars who go straight from school to a tertiary institution. The environment at university can thus also contribute to attrition Blunden (no date: 1).

In a proportional research exploring attrition and keeping in school student birth attendants, Green and Baird (2009: 82-83) found that reasons for departing from or leaving the programme included lack of support from the programme, emotional demands of the programme and large student cohort numbers Green and Baird (2009: 82-83). Additionally, a respondent discovered the scholarly side problematic; fingered lack of support from the academics and felt anxious getting assistance from them as they did not attempt make them feel contented and students wriggled with acclimatizing to the life at a tertiary institution Green and Baird (2009: 82-83). In noting the importance and relevance of why students leave their study programmes, Green and Baird (2009: 85) comment that it was discouraging that there were inadequate information relating to those scholars that had essentially departed from their academic courses. Nevertheless, this limited data per se is an essential matter for those employed in tertiary education. It means that motives for departing academic courses essential must be urgently unpacked and precisely documented since once they have left, it is improbable those individual students will want to return to this arduous pronouncement.

The quality and extent of student support contact with lecturers, the workload in modules and the difficulty and number of written assignments can also been identified as reasons for dropping out of university (Xenos, Pierrakeas & Pintelas, 2002: 363). Additionally, some students dropped out of university because they were of the opinion that the instructor did not assist them adequately to comprehend the allotted material and conclude the written coursework. Other students reported incapability of their instructor to assist them to vanquish non-scholarly complications(Xenos, Pierrakeas & Pintelas, 2002: 363). Others described that communication difficulties with the instructor, for instance, a sluggish feedback period to their enquiries, grapple to reach instructors even by telephonically, and so forth (Xenos, Pierrakeas & Pintelas, 2002: 374).

Yorke (1997: 5) found that the interviewees who had pulled out of their studies within their initial-year had, amongst others, discovered the academic programme they were enrolled for not what they had anticipated, they were short of obligation to the academic programme, and were not pleased with the manner in which the academic programme was being tutored. Additionally, it was younger entrants (under 21 years of age) to higher education who withdrew from their studies because they had chosen the wrong programme, had problems with accommodation, suffered from homesickness and felt that they desired a disruption of their studies Yorke (1997: 5). Matured tertiary education beginners (21 old and above) accepted that private situations, such as fiscal problems, the desires of their next of kin, absence of the backing from family, the expectations of the job market at the same time as learning, anxiety, and travelling complications as explanations for departure from their schooling Yorke (1997: 5).

Given the fact that there are many FTE's at South African universities (Green Paper for post-school education and training, 2012:7-8) in general as a consequence of the widening of access to tertiary education, the same can also be reported about Belgium. Here, Wood (1998: 17-31) explains that Belgium, with its open access to the university system, has seen an ever increasing number of first-year enrolments which has, in turn, highlighted the necessity for greater quality tutors who could competently manage the immense sizes of classrooms became critical. Furthermore, the increase in the number of students led to appeals from lecturing staff and scholars for measures to be put into place that will arouse interest in the eminence of instruction (Wood, 1998: 17-31). This led to establishment of the Educational Services Research Unit in 1977. Additionally, in an endeavour to comprehend the issues that encourage or deter the academic accomplishment of this enlarged student numbers , studies had revealed that students evaluate teaching strategies/procedures from a dissimilar, non-instructive view point with regards to their observations of the way in which these happenings simplify their studying patterns i.e. their aptitude to learn, comprehend, evaluated and put into action the acquired knowledge and thus to implement well what they have learned and to advance to the subsequent phase of their academic programme or to graduate (Wood, 1998: 17-31).

Yates (2012: 2-6) acknowledges that students who leave a programme before graduation are a cause for concern. Identifying and providing support for students who do not progress academically generates an extra workload for staff in the faculty concerned, thus placing a strain on the limited available resources. One way of identifying students who are likely to withdraw from their studies would be the creation of effective and vigorous mental examinations which could be used to identify applicants with excessive personality features and the introduction of a structured exit interview Yates (2012: 2-6).

Wood (1998: 17-31) assessed the attributes of the instructing behaviour by means of scholar assessment, with the intention to recognizing weak points that require enhancement and areas of distinction that could serve as better practice. Based on the results of the afore-mentioned research, a factor examination of the scholars' replies was conducted, and it discovered five foremost aspects or awareness extents that, from a scholar's view, point designate respectable instruction method.

Form his study mentioned above, (Wood, 998: 17-31) identified five student perception dimensions of good lecturing behaviour identified by students as follows:

2.7.1 Leading (Supervisory) Conduct

When a tutors lead the scholars' learning conduct, they direct them in the direction of attaining future intentions/objectives, i.e. passing the assessment/succeeding to the subsequent stage of the academic programme. Tutors will do this by assisting scholars to get ready for the assessments /examination by expounding the requisites of the assessment's examination/; emphasizing the salient parts of the subject matter; draw scholars' attention to the demanding components of the curriculum and preparing scholars for the outline of the assessment / examination in question (Wood, 1998: 17-31).

2.7.2 Planned Conduct

Well-planned conduct of the tutor empowers the scholars to comprehend the knowledge that is transmitted in a reasonable and comprehensible fashion, which is evidently the first precondition for a scholar to be able to integrate knowledge. Well-planned conduct of the tutor will generate an unambiguous construction for his/her lessons and will make decent use of pictorial assists (Wood, 1998: 17-31).

2.7.3 Interactive Conduct

Good intercommunication capabilities assist the increasing self-confidence of the scholar and can be encountered in a multitude of instructional conducts. Scholars anticipate constant backing and comment to notify them whether they are progressing in the accurate course or not and this relies on the tutor's capacity to interconnect efficiently with the scholars Wood (1998: 17-31). This is made simpler if the tutor is transparent to questioning and deliberations and is prepared to pay attention to the sentiments of the scholars. Nevertheless, good intercommunication capabilities are only operative if the additional scopes of exceptional instruction conduct are in place, i.e. leading; planned; encouraging and exhilarating (Wood, 1998: 17-31).

2.7.4 Encouraging Conduct

The more care an instructor attaches to the connotation of his/her academic programme, the better is the possibility that the matter used for instruction in the lessons will be observed by the scholars as offering an encouraging understanding in which knowledge and true to life experiences have become intertwined Wood (1998: 17-31). Consequently, the scholars will feel self-assured in their comprehension of the content of the academic programme and in charge of their education/learning methods, being intelligent enough to connect new truths and intelligence to their preceding understanding. Indication of encouraging conduct will comprise deliberation, the use of stimulating and applicable illustrations which invigorate lessons and methodical descriptions of where new themes are applicable into what has previously been tutored (Wood, 1998: 17-31).

2.7.5 Exhilarating Conduct

Exhilarating conduct suggests that the tutor includes the scholars in their individual education method by expanding their curiosity about the academic programme. The scholar will feel that he/she is individually participating in their learning and will be inspired to assume a systematic evaluation of the subject matter in front of them by studying extensively on their subject matter. This further assists to the profound level rational method so essential for efficient learning. The tutor who is sincerely attentive in their subject matter, offering the subject matter in a vibrant, comprehensible manner and inspiring the scholars to ponder on the subject matter in a broader context will inspire the scholars (Wood, 1998: 17-31).

The above can have an immeasurable contribution in fashioning an atmosphere that is favourable to learning and teaching at a tertiary institution. Evans and Fancy (s.a: 1-2) considered the scholarly results of freshmen in Australia at Monash University who were registered in mandatory subjects for freshmen in 1997 in the Faculty of Business and Economics at three of the colleges in Peninsula, Caulfield and Clayton Evans and Fancy (s.a: 1-2). Their research looked at the connection between scholars' last-year accomplishment at high school and their freshman-year academic performance at a tertiary institution in specific courses throughout a variety of major fields of study Evans and Fancy (s.a: 1-2). What they found was that scholars' freshman-year achievement at a tertiary institution is connected to their previous scholarly attainment at high school. As mentioned in the preceding chapter, this is in direct contrast to a much earlier study carried out in South Africa in 1936 which found that the rate of success at university was not in any way related to their achievement at school (Akoojee & Nkomo, 2007: 387).

McMillan (2013: 6-10) found that adjusting to university life can be an emotional experience for some FTEs. In this regard, he has grouped a number of factors that can affect the emotional well-being of first-year students:

- **Knowing what to expect:** Scholars stated dread with respect to scholarly prospects, which, in their opinion, were, evidently not known and as a result not apparent. The joint sense of novelty and lack of distinctness with regards to what to anticipate was encountered as intimidating (McMillan, 2013: 6-10).

- **Feeling familiar:** An unacquainted physical setting further aggravated anxiety in the scholarly environment. Before scholars could even engross with the scholarly demands of the lecture halls, they had to discovery their route to the lecture hall, a further encounter stirring up emotions (McMillan, 2013: 6-10).

- **Relationship with lecturers:** Scholars mentioned the diverse associations with school educators and tutors at a tertiary institution. Associations with educators were mostly personal and with tutors were mostly formal. These transformations caused initial frame of mind of dread regarding engagement with tutors McMillan (McMillan, 2013: 6-10).

- **Making friends:** Making friends was, nevertheless, also loaded with sentimental anxiety in the time of changeover from high school to a tertiary institution. Same as coming to a tertiary institution, forging new friendships related to no knowledge of what to anticipate and feeling unacquainted; and the scholars who partook in the experimental study agreed that coming to a tertiary institution not being acquainted someone else was a tremendously sensitive and difficult exercise (McMillan, 2013: 6-10).

Baeten, Dochy and Struyven (2013: 485) investigated the impact of various learning milieus on scholars' inspiration for scholarship and their attainment, and their investigation has revealed the constructive impact of scholar-focused learning surroundings and there have been propositions to integrate both. Efforts have been put in place to examine the value of scholar-focused learning surroundings in comparison to more conformist learning surroundings making use of traditional lectures (Baeten, Dochy & Struyven, 2013: 485).

However, Baeten, Dochy and Struyven (2013: 485) caution that previous research in higher education was largely engrossed on the impact of scholar-focused versus traditional lectures-focused learning surroundings without considering the mental needs provision provided by educators in education surroundings. Here, inspiration plays a part, and it becomes essential to distinguish between independent (individual-agreed) and measured inspiration: Independent inspiration, as fragment of the self-determination theory (SDT) includes the experience of enactment with a sense of desire and option (Baeten, Dochy & Struyven, 2013: 485), while measured inspiration, as part of the constructivist education philosophy and scholar-focused learning surroundings, on the contrary, denotes to sensation being pressurized to perform something (Baeten, Dochy & Struyven, 2013: 485). To augment scholars' independent inspiration, a learning setting should gratify the necessity for undergoing a sense of having an option and mental autonomy in education (option for independence), feeling operative in education (necessity for aptitude), and undergoing a sense of attachment and intimacy to counterparts (necessity for kinship) (Baeten, Dochy & Struyven, 2013: 485). The educator also ponders on the scholars' viewpoint, recognizing scholars' sentiments, and, on every occasion conceivable, providing an option or providing a justification when no option can be provided Baeten, Dochy & Struyven (2013: 485). At the same period, educators who support independence on the part of the scholars, sidestep the usage of regulatory language (e.g. using words like you must when offering instruction) (Baeten, Dochy and Struyven, 2013: 486).

Constructivism education philosophy likewise plays an important role in academic success or failure. Constructivism education philosophy is explained as a vigorous procedure in which scholars are vigorous makers of meaning who pursue to construct comprehensible and systematized knowledge (Baeten, Dochy & Struyven, 2013: 486). While some academics designated that vigorous data creation could occur notwithstanding the instruction approach used, even though in attendance of a lesson, others contended that actual constructivism education philosophy should be advanced for scholars to create intelligence on their own (Baeten, Dochy & Struyven, 2013: 486). Fundamental to the research by Baeten, Dochy and Struyven (2013: 486) is the instruction technique of Case-Based Learning (CBL), at the centre of which is the element that CBL attempts to generate a connection between philosophy and practice by requesting scholars to connect philosophies and ideas to actual circumstances (Baeten, Dochy & Struyven, 2013: 486).

Baeten, Dochy and Struyven (2013: 496) found that students' autonomous motivation for learning can be influenced by the learning environment. Additionally, their study showed that students' autonomous motivation is significantly higher in a learning environment in which lectures gradually make way for CBL, compared to a learning environment in which students only experience CBL.

2.8 ACCESS FOR CONVENIENCE

Due to Access For Convenience (AFC), there is a certain number of students, who might not be dedicated to their studies since the programme they enrolled for is not their first choice of studies. As mentioned in Chapter 1, AFC is a situation whereby a student will register for any academic programme that will accommodate him/her. This is done for the sole purpose of obtaining space, and a student number, with the intention of registering for a different academic programme in the next academic year. The overall cause of AFC is the stiff competition for limited space at HEIs.

Given AFC, students might lack the rigour and dedication needed to succeed academically as noted by a responded from a study by Green and Baird (2009: 82) who said that it was hard to understand what the programme involved and it is something one could not prepare for. This is over and above what the participants mentioned, that before starting with their education, they were knowledgeable of the expectations of the academic programme, but the certainty of these expectations was just too tough to accomplish. It is therefore not surprising that scholars may spend additional period or put an extra effort in academic programmes in which they plan to major. Consequently, they may earn higher grades in those courses and are also more likely to major in those subjects (Main & Ost, 2014: 2). Yorke (1997:4) also found that students withdrew from their studies in the first-year when they discover that they have chosen the wrong field of study.

Another example of students who do not get an opportunity to register for a programme which is their first choice of study can be found in a study by Yorke (1997: 12) who mentions the clearing/clearance process in the England higher education system. What happens here is that after the announcement of the A-level examination outcomes there are those scholars who are referred to as students in clearing. The majority scholars in clearance are the ones whose outcomes have not satisfied requirements set by an establishment for acceptance, and they are obliged, in a moderately short space of time, to find an alternative establishment and probably academic programme they would enrol in Yorke (1997: 12). This study contends that if a student is not happy with the programme he/she is registered for and/or the institution at which he/she is registered, this affect his/her academic performance, thus leading to withdrawal from studies. This study draws support from the latter assertion from Yorke (1997: 12) who points out that an imprudent pledge appears probable to lead to premature departure Yorke (1997: 12). To decrease premature withdrawal from tertiary institutions, three significant areas require thorough focus: choice of field of study (ensuring that potential scholars obtain decent guidance concerning their petitions for admission), excellence of the scholar involvement (the burdens on universities to decrease the extent of scholar/staff interaction and combined syllabuses are making formative valuations cumbersome to shape into the scholarship involvement) and money (some students develop such dread as a result of the measure of the liability that they were acquiring that they departed) (Yorke, 1997: 14).

Mouton *et al* (2015: 6) reported not being admitted into their primary academic programme of their choice as one of the motives for departing from academic programmes, albeit by Honours and Masters student. This finding, for the sake of this study, can be compared to access for convenience (AFC).

Students who register for a course, which is not their first choice of study, will not find meaning and value for their studies. Makola and Van Den Berg (2008: 53 & 57) investigated the association between scholars' sense of signification and the degree to which it acts as stimulus for scholarly achievement among freshmen in the ManFac, at the Welkom Campus of Central University of Technology, Free State. Firstly, Makola and Van Den Berg (2008: 51 & 52) mention, numerous aspects that have a bearing on scholarly achievement at a tertiary institution. These embrace intellectual and non-intellectual aspects as well as circumstantial aspects. Sense in life is an instance of a non-intellectual feature that aids scholars to endure life's pressure-factors more successfully, thus refining adaptation to the life requirements, as well as scholarly demands Makola and Van Den Berg (2008: 51-52). Exposure to some of the abovementioned factors might serve as stressors, with detrimental effects on academic performance. To illustrate the importance the association between sense of signification and scholarly accomplishment or inadequacy, Makola and Van Den Berg (2008: 51) discovered a noteworthy association between persistence in life and freshman scholarly achievement and announced that on the reverse scale, purposelessness may lead to a number of complications, for instance, despair and belligerence to the oneself or other people, complications of attentiveness in the auditorium, complications in connecting to other people, absence of inventiveness, self-doubt and numerous forms of negligence (Makola, 2014: 39).

In an earlier study among first-year students, Makola and Van Den Berg (2008: 3-4) aimed to demonstrate how inventive, experimental, and stances on morals can be functional in an education setting. Creative values refer to what individuals offer to life; experimental values are what people detract from life and stances on morals is the acknowledgement of an unalterable situation Makola and Van Den Berg (2008: 51 & 52). Numerous students expressed creative values when asked what gives meaning to their lives. Furthermore, they wanted to achieve their goals, to see their dreams come true, to become successful, and to excel at their chosen or desired field of work. Sometimes, these values were frustrated, as when they could not study the course they wanted to, (Makola & Van Den Berg, 2008: 4), thus supporting this study's assertion that lack of opportunity to register in a course which is their first choice of study can have undesirable impact on the academic performance of freshmen at a university of technology (Makola and Van Den Berg, 2008: 51 & 52).

Lack of opportunity to register in a course which is their first choice of study can result in a situation where FTE's at a UOT become what Makola and Van Den Berg (2008: 3-8) term Low Meaning Group. This group of students was identified in a study, which used the Purpose in Life Test (PIL), which measured the extent to which students encounter a sense of signification and determination in their existence. These students had scored low in the PIL Test and 90% of interviews from the Low Meaning Group departed from their academic programmes at a tertiary institution prior to finishing their education, while only 10% persevered to conclusion of the academic programme (Makola, 2014: 286). At the same time, Makola and Van Den Berg (2008: 51) caution that academic performance is a very complex construct, determined by the interaction between personal, contextual and institutional factors.

Since Work Integrated Learning (WIL) is an integral part of academic programmes offered by a UOT it is necessary to briefly mention the impact of students' placement during WIL as a contributor to attrition. This study contends that if students regard their placement as unsatisfactory, this can lead to attrition. To this end, reference is made to Eick, Williamson and Heath (2011: 1299) who conducted a quantitative and qualitative research, which investigated attrition among nursing student with prominence on issues related emplacement-. Their study also examined private motives for departing, population and additional issues, and scholars' characteristics. They reported that scholars enrolled in nursing cited unacceptable placement impressions as the cause for departure from nursing school, specifically being vulnerable to repellent placement encounters, the patterns of behaviour of placement staff, and absence of assistance. Additionally, Eick, Williamson and Heath (2011: 12300) refer to the Royal College of Nursing investigation of 2008 among 3527 students in the United Kingdom, which revealed that 39% contemplated departing from their academic programmes due to of encounters on clinical assignments in 2006.

2.9 CUT SUPPORT SERVICES FOR SCHOLARS

As discussed in Chapter 1, this research aims to test the efficacy of current CUT interventions in assisting first-year students in the Somatology and Human Resources Management programmes to cope with their studies.

According to the 2013 CUT Prospectus, the following support services are available to registered CUT students to help them cope and pass their courses at the Bloemfontein campus. It is important to note that what follows is not a discussion of the CUT Prospectus. Rather, this study intends to ask first-year scholars (First Time Entering students, i.e. FET's) in the Human Resources Management (HRM) and Somatology programmes if they are aware of the availability of CUT Student Support Services, whether they use CUT Student Support Services and how helpful are these services. The CUT Student Support Services discussed below are as they appear in the 2013 CUT Prospectus:

Fees, Bursaries and Loans
Operational Sport
Residence Life
Library and Information Services (LIS)
Wellness Centre
Student Development and Governance
e-Learning and Educational Technology
Centre for Work-Integrated Learning and Skills Development
Student Services
Student Life

Each of the above CUT student support services is discussed in detail below so as to paint a broader picture of the services that are available to students.

2.9.1 Fees, Bursaries and Loans

The following rules are applicable in relation to fees are applied at the CUT
Fees payable annually are determined by the CUT Council. Stipulated amounts are applicable for one academic year only. However, fees may increase tuition fees (www.cut.ac.za).

Funza Lushaka (including CUT-administered loans), CUT Leadership Bursaries for freshmen, Academic recruitment bursaries (freshmen), National Student Financial Aid Scheme (NSFAS) Loans, and CUT bursaries based on academic excellence for freshmen are available at the CUT (CUT Prospectus, 2013: 107-1119).

2.9.2 Operational Sport

2.9.2.1 Taking part

Students who intend to take part in any of the sporting codes available at the CUT should report to the relevant Deputy Manager so that they may be included in the activities promptly (CUT Prospectus, 2013: 107-1119).

2.9.2.2 Sporting codes

Any scholar who proposes to partake in any sporting code that is not listed at the CUT can take this matter up with the Assistant Supervisor, who will then confirm that the required preparations are made for that scholar obtains membership of an appropriate sporting team in the town (CUT Prospectus, 2013: 107-1119).

2.9.2.3 Taking part in inter-tertiary and sports tournaments organised by USSA

All legitimate students may part-take in inter-tertiary sporting competitions, and provincial and national scholar competitions or championship meetings as per the constitution of University Sports South Africa (USSA) (CUT Prospectus, 2013: 107-1119).

2.9.2.4 Financial assistance

Financial assistance by Operational Sport covers certain expenses in respect of students' participation in a national scholar competitions or championship meetings as a member of a provincial team. All students who participate in sports may apply (CUT Prospectus, 2013: 107-1119).

2.9.2.5 Medicinal expenditures

All contestants in the several sporting codes are induvially liable for their personal medicinal expenditures resulting from any sporting wounds. Neither the sporting team concerned, nor the CUT will be held liable or accountable for such expenditures at all (CUT Prospectus, 2013: 107-1119).

2.9.2.6Sporting study support

Merit is used to ward sport bursaries to promising sportsmen and sportswomen. Sport study support are only bestowed upon persons who partake in association sporting events in wherein they represent the CUT. Only accomplishments at regional level and above are considered. Request arrangement can be made from Operational Sport, and the final submission date thereof is October 31 of each year (CUT Prospectus, 2013: 107-1119).

2.9.2.7Practice times

Available from Operational are the exact times of practice as decided for every sporting code. (CUT Prospectus, 2013: 107-1119).

2.9.3 Residence Life

Accommodation in single and double rooms is offered at CUT's houses which are expediently located on or close to the grounds of the CUT. The houses are furnished with, among other items, clothes-drying machines, televisions broadcasts, automatic washer-apparatus and phones, and are cordial for scholar. Scholars can, moreover, appreciate inexpensive and counterbalanced food at the university dining hall though each house is equipped with self-catering services (CUT Prospectus, 2013: 107-1119).

A House Committee in each residence manages the house in association with the Manager of Residences. Sporting, ethnic and social events are hosted regularly; though the academic aspect enjoys the highest priority (CUT Prospectus, 2013: 107-1119).

2.9.4 Library and Information Services (LIS)

Giving the CUT populace an entryway to information in backing of research, learning and teaching is the mission of Library and Information Services (LIS) (CUT Prospectus, 2013: 107-1119).

The LIS has the subsequent tactical objectives which lead to the achievement of its mission:

- Quality control and assurance: Upholding elevated ethics of provision, safeguarding cost efficiency and effectiveness in LIS processes, acquiescence with institutionalized, nationwide and global values in the administration of information capitals (CUT Prospectus, 2013: 107-1119).
- Information skills: The objective is to promote admission with accomplishment and expansion of the ethos of autonomous and lifetime education which can in turn foster the growth of scholarly information expertise for scholars and employees (CUT Prospectus, 2013: 107-1119).
- Instruction and scholarship: Provision and elevation of the ability to get hold of comprehensive and contemporary information tailored for CUT academic offerings in order to preserve a high degree of efficiency of scholars (CUT Prospectus, 2013: 107-1119).
- Partnerships: The forming collaboration with groups of practice and partnership with other institutes at local, provincial, nationwide and global levels in terms of distribution capitals and know-how(CUT Prospectus, 2013: 107-1119).
- Research: The provision of good-grade information capitals that will improve, assist and support the research capability of the CUT (CUT Prospectus, 2013: 107-1119).

Found the Bloemfontein campus, the library building consists of four floors:

2.9.4.1 Ground Floor

The following are found on this floor(CUT Prospectus, 2013: 107-1119) :

- The issuing desk is where searchers can loan and bring back material from the library.
- Attending to universal queries.

- Protection officials are stationed on the ground floor to monitor and enforce access control.
- Journal periodicals are also positioned on this level.
- Two venues for studying that are open for 24 hours a day with space for sitting down for about 400 scholars.
- Printer facilities

2.9.4.2 First Floor

The following are found on this level(CUT Prospectus, 2013: 107-1119) :

- The core book assembly
- The citation segment
- Core collections of books
- Supplementary material
- A reading corner for leisure reading
- The Information Services Section which assists all customers with the tracking of information facilities, borrowing of information sources from relevant libraries, seeking information resources that are not immediately accessible in the LIS assemblage
- Information librarians catering to all four faculties
- Information agents are conveniently accessible to provide information in the suitable manner.
- An overtime librarian, who is also on duty on Saturdays.
- Private study cubicles for postgraduate
- Special rooms equipped as project rooms, where students can collaborate
- Library Issue Desk.

2.9.4.3 Second Floor

The following are found on this level(CUT Prospectus, 2013: 107-1119) :

This level is separated into four units, viz. the Postgrad Study Squares, Brief Loans Unit, the Periodical Assemblage, and Accessible Automated Resource Centre.

- Postgrad Study Squares is utilized by Doctoral and Masters ‘scholars and academics only for brief-loan study material for exclusive use in the library for a time of 120 minutes.
- Watching of VHS or DVD recordings but students are not allowed to remove these from the Library
- The Accessible Automated Resource Centre which enables usage of to 280 computers for scholarly objectives. Scholars sign in to the repositories that the LIS is associated with. Various Microsoft Office applications can also be accessed .

- Sixty of the above-mentioned computers are a section of two learning workrooms where repositories and internet procedure programmes are taught, together with information literateness and additional programmes.
- The Accessible Automated Resource Centre and both training laboratories that are accessible to people with disabilities.

2.9.4.4 Third Floor

The following are found on this level(CUT Prospectus, 2013: 107-1119) :

- Offices of LIS staff members

2.9.4.5 Fourth floor

The following are found on this floor (CUT Prospectus, 2013: 107-1119):

- The Art Arcade, which is also used for art displays, meetings and additional proceedings.
- The Centre for Innovation in Learning and Teaching (CILT) which is responsible for, among others, Curriculum Development, eLearning and Student Academic Development and Support.

2.9.4.6 Webpage of the LIS

Information one can find on the webpage of theLIShttp://www.cut.ac.za/library:

- Extensive collections and repositories
- Access to scholars both when they are on campus and when they are off campus. Network address thereof is http://www.cut.ac.za/library
- (2014 CUT Prospectus: 2014: 124)

2.9.5 Wellness Centre

It is the responsibility of the Wellness Centre to provide a range of extensive services, namely social work services, reading development, the selection of prospective students' health and psychological/counselling services and chaplaincy services. The second level of the Lapeng Student Centre houses the Psychological and Social Services while alongside the Welgemoed residence, the Medical Centre is can be found(CUT Prospectus, 2013: 107-1119).

2.9.5.1.Counselling

Services to prospective students

A broad range of career guidance services are provided. The significance skills required to make individual choice and the accompanying acknowledgement of accountability are reinforced. The professionally qualified staff members, who employ diverse methods, which include psycho technical analysis, vocation communication and consultations, offer support to prospective student. However, an amount of R1500 is paid by prospective students for career guidance programme(CUT Prospectus, 2013: 107-1119).

Prospective students are offered these services:

Academic assistance

Reading development

Study guidance

Course information

Change of course

Emotional problems

Personal complications

Relations complications

Adjustment complications

Family complications

Redressing shock (rape, loss of a loved one, etc.)

Dejection

Alcohol and drug abuse

Wellness programmes

Academic support

Exam-writing skills, study guidance programmes and motivation techniques, and to mention but a few, are offered. Several academic support programmes are in place at the CUT offers, which have proven successful for the scholars who attended them on a regular basis(CUT Prospectus, 2013: 107-1119) .

Development of reading

The Wellness Centre has four computer-based reading facilities where scholars can advance their reading and learning practices with the aid of computer-based reading facilities. Also offered are services whose objective is to improve the studying and reading techniques of students(CUT Prospectus, 2013: 107-1119).

Improving the reading rapidity and reading conception to the greatest extent conceivable is the aim of the Wellness Centre. All this is conducted in a manner that is scientific. Coursework for studying and reading are rendered on a regularly, and this provision is provided at no cost.

Chaplainship facilities

The CUT caters for the spiritual needs of students. Wellness Centre plays an important role in encouraging students to take part in the spiritual activities that are provided by the different houses of worship (CUT Prospectus, 2013: 107-1119).

The Chaplaincy Desk is housed at the Wellness Centre . Giving all spiritual designations and faiths the required information with regards to campus operations for Christian and other religious groups is the aim of the Chaplaincy Office. Students are also encouraged to participate in activities guided towards religion. Support is also offered to all staff and students (CUT Prospectus, 2013: 107-1119).

Services offered by social workers

The foremost responsibility of the social worker is to guarantee the communal welfare of scholars by encouraging a well and favourable milieu through the time of learning at the CUT (CUT Prospectus, 2013: 107-1119).

The functions of the social workers are (CUT Prospectus, 2013: 107-1119) ***:***

To render services related to the following:

To collate background reports on financially needy students;

To work hand in hand with the well-being facilities staff, house employees and scholar accounts

To arrange and carry out information sessions and workshops on HIV/AIDS

staff with regard to the transfer of scholars and psychologists

Rape counselling

Bereavement

Counselling for before and after abortion

Poverty/financial challenges

Plans for Communal outreach

All amenities are treated as classified and are obtainable at no cost to CUT scholars at appointed times only. Arrangements should be finalised with the applicable administrator (CUT Prospectus, 2013: 107-1119) .

Services to enrolled students

In helping students, the Wellness Centre addresses the following inquiries/matters: Are the students' personal problems burdensome? Do students suffer from depression? Do students suffer from lack of self-confidence? Are students' relationships healthy or do they have domestic problems? Moreover, it addresses all impediments to students' progress in attaining scholarly accomplishment at CUT, be it through separate and/or cluster therapy sittings. The Wellness

Centre provided an extensive diversity of life techniques initiatives, as well as the management of time, coaching in being assertive and coaching scholars to become inspired (CUT Prospectus, 2013: 107-1119).

Registered psychologists at the CUT offer the services mentioned below., It is worth mentioning that all information is treated as being strictly confidential. Students are aware that they can visit psychologists when they have any kind of personal problems and crises. These amenities are available at no costs, though sessions should be scheduled (CUT Prospectus, 2013: 107-1119).

2.9.6 Centre responsible for Work-Integrated Learning and Skills Development

The Centre for responsible Work-integrated Learning (WIL) and Skills Development supports with the training of scholars for the employment and develops processes to intensify scholar placing for WIL, a mandatory practical constituent of learning programmes(CUT Prospectus, 2013: 107-1119).

Office for WIL is principally accountable for the subsequent functions (CUT Prospectus, 2013: 107-1119)***:***

- Managing for appropriate placement vacancies for scholars with corporations and establishments;
- Furnishing corporations with information and support with the groundwork of scholars for employment via information meetings;
- Helping with the expansion of approaches and procedures for oversight and measuring scholar achievement;
- Establishing and sustaining records for possible scholar placement vacancies;
- Helping with the drawing up of WIL strategies and actions(journal and training manual); and
- Communicating with the several faculties on a continuous basis to cultivate operational WIL structures and to deal with recognized desires through seminars and learning sessions.

Office for Vocations:

The Office for Vocations augments scholar and alumnus employment opportunities using a sequence of purposeful occasions that focus on the advancement and employment matters, extending from the vocation advancement of scholars to recruiting of the alumnus (CUT Prospectus, 2013: 107-1119).

The resulting amenities are on offer (CUT Prospectus, 2013: 107-1119):

- Employment-seeking strategies;
- Simulated interviewing – offers the prospect to expand interview aptitude/understanding;
- Enlisting the alumnus in presentations conducted on-campus companies, interacting occasions and vocation carnivals;
- Dispensing vocation- and information associated;
- Preserving a proprietor and scholar CV repository; and
- Maintaining a collection of vocations with e-vacations means (2014 CUT Prospectus: 2014: 117).

2.9.7 Scholar Growth and Administration

Scholar guidance initiatives are presented to getting scholars ready for management functions and obligations at the university and in the community (CUT Prospectus, 2013: 107-1119). CUT is dedicated to assisting scholars to discover and maximise their management inherent capacities. Exceptional scholars set the norms, and by arguments and actions encourage other scholars to improve their achievements in all respects of life. The resident society desires people who are equipped to make a meaningful impact. These occasions are conceivable through the Scholar Growth and Administration Component, which supervises all dancing, drama choir, debating chess and operations (CUT Prospectus, 2013: 107-1119).

CUT has a varied public with dissimilar circumstances and backgrounds. Annually CUT reserves one week to acknowledge and delight in the culture and tradition of all the communities delineated on at the university. These celebrations, which comprise customary meals, dance and music , are meant to bridge the social divide and help employees and scholars to understand one another better (CUT Prospectus, 2014: 119).

2.9.8 eLearning and Technology in Educational

Electronic education or e-learning is progressively playing an essential part at CUT. Scholars have the possibility to gain from this, as the actives are complemented by electronic education elements. The components of lessons, assessment and projects are obtainable from the intranet. Thus, using computers or at home at the university, scholars can be in the position to make use of the electronic education components through the web. In this way, a more comprehensive service is made available to scholars. Electronic and technology in educational are progressively being incorporated into the presentation of academic programmes in order to safeguard the best package for scholars conceivable (CUT Prospectus, 2014: 117).

2.9.9 Life of Scholars at the CUT

Scholar Amenities offers several social and scholar advancement actions constantly. The furthermost imperative is getting scholars engaged(CUT Prospectus, 2014: 117).

An opportunity is created in various ways to cater for the sake of individual scholars. In the learning environment, scholars' concerns are additionally animated by current learning matter organizations in many areas of learning, that present stimulating undertakings during the course of the academic year through the safeguard of a champion tutor (CUT Prospectus, 2014: 117). In the social area, there is tight association with the numerous boards of crafts , while scholars' area liberty to be part of whatever associations they are interested in. Aimed at scholars who appreciate choreography, for example, the CUT offers Latin American ballroom and dancing, while the Revue Group at the CUT holds constant presentations (CUT Prospectus, 2014: 117).

The Choir at the CUT likewise presents to scholars the occasion to additionally grow their melodic and choral capacities. Additional social organizations comprise the Voortrekkers, Drama Organization, Debating Association, and the Chess Association while associates of the Columbini Adventure Association frequently go on hiking excursions (CUT Prospectus, 2014: 117). The Women Scholars' Association is devoted to the desires of our feminine scholars, while Club Fortes is there to safeguard that all scholars have a pleasant communal and social life (CUT Prospectus, 2014: 117). The Scholar Alliance was founded to make a meaningful input to a dynamic scholar life. Also celebrated is the abundance and assortment of the diverse cultivations at the university throughout the yearly Culture Week. Fledgling authors can advance additionally their abilities by way of active duty as staff in the publishing house of the scholar gazette known as Speculum (CUT Prospectus, 2014: 118).

2.9.10 Student Services

2.9.10.1 Broad-spectrum

Through the use of preparation and instruction offered , the CUT wishes to get students ready for the contemporary scientific universal realm in such a manner that they will be able to meet as well as successfully navigate the applicable encounters, but also for accountable civil responsibility (CUT Prospectus, 2014: 117).

CUT delivers amenities that eradicate obstacles and constructs a setting that is favourable to the circumstances and prospects required for scholars and employees to contribute to scholarly interaction. Additionally, the CUT emboldens the advancement of a setting that encompasses several undertakings and philosophies, thus countersigning development and growth external to the schoolroom setting. The expression invariable learning offers a superlative description of the afore-mentioned (CUT Prospectus, 2014: 117).

It is along these lines that the CUT's that the CUT's Scholar Amenities endeavoured to create a learning and living setting that assimilates a variety of educational programmes and undertakings that are additional to the academic programmes. The Deputy Registrar: Student Services is accountable for the harmonization of the aforementioned (CUT Prospectus, 2014: 117). Table 2.1 below indicates the CUT's Student Services and Student Wellbeing.

Table 2.1: CUT Deputy Registrar: Student Services and Student Wellbeing

Deputy Registrar: Student Services	Scholar Welfare
Scholar Administration/SRC	Counselling
Scholar Advancement	Scholar Selection Support
Scholar Information	Reading Development
Scholar Association	Chaplaincy
Scholar Structures	Social Services
Diversity of Ethnic Operations	Student Wellness
Leisure Hobbies	Community Outreach Programmes
Contest for Mr & Miss CUT	Health Services
Cavalcade	Student Applications
House Life	Scholar Enrolments
Scholar Correction	Operational Sport

2.9.11 CUT Support Services with special reference to Supplemental Instruction (SI)

The CUT 2016 Calendar (2016:106-126) states that:

- Applicable right to use amenities, systems and provisions that will assist scholar commitment and scholarship (CUT Calendar, 2016: 106-126),
- Leadership, teaching and sustenance from knowledgeable CUT workforce;
- All first-year students at CUT should have written the National Benchmark Test (NBT) before registration. CUT uses the NBT results in addition to scholastic academic performance and examination results for placement of the students in development courses or extended programmes, or for identifying other additional academic support (CUT Calendar, 2016: 125), and
- Learners who do not qualify for admission to CUT are supported through counselling and development, and may be referred to an ECP (CUT Calendar, 2016: 126).

From the above, institutional commitment to assist students is in no doubt. What is concerning is the staggering number of students going for supplemental instruction(CUT Calendar, 2016: 126). However, what is additional teaching, academically know as Supplemental Instruction (SI)? SI is a supportive teaching and learning paradigm geared towards improvement of scholar achievement and continuation in academic programmes with a record of significant inadequacy and departure benchmarks (Etter, Burmeister & Elder, 2000: 355). Furthermore, Arendale (1994: 11) comments that supportive teaching and learning) is a scholarly supportive imitative that proliferates the scholarly accomplishment and premature departure from academic programmes through its practice of cooperative teaching and learning paradigm. SI targets typically demanding university courses of instruction, those that have significant departure benchmarks, and offers on a regular basis scheduled, out-of-class, consultations facilitated fellow students- that offer scholars an occasion to deliberate on the content of the academic programme(Etter, Burmeister & Elder, 2000: 355). Furthermore, Arendale (1994: 11) .

Graph 2.1: 2016 CUT Supplemental Instruction Attendances

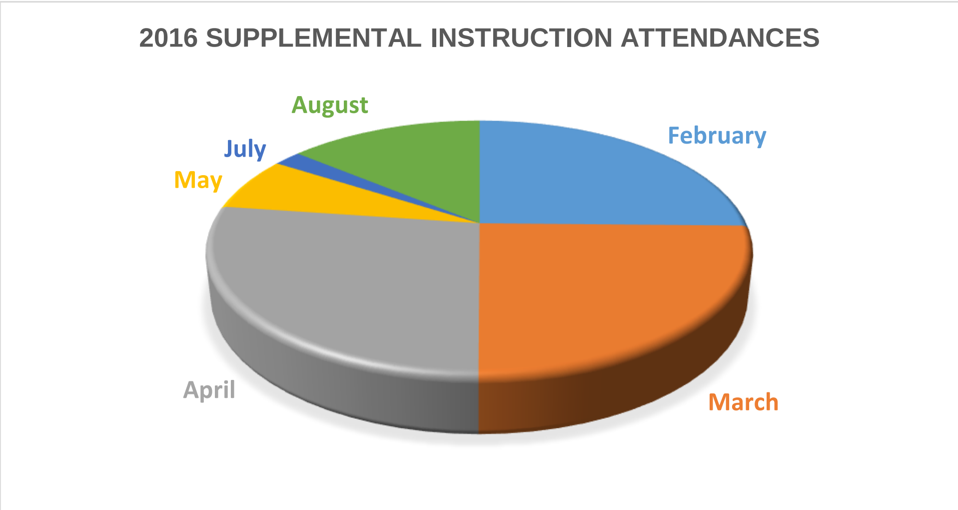


Table 2.2: 2016 CUT Supplemental Instruction Attendances

	1ST YEAR	2ND YEAR	3RD YEAR	TOTAL PER MONTH
February	5314	441	222	5977
March	5195	177	91	5463
April	5706	280	187	6173
May	1443	112	7	1562
July	413	12	1	426
August	2925	344	24	3293

As Graph 2.1 and Table 2.2 depict, the number of students attending SI is staggering.

2.9.12 Health Amenities offered on Campus

Health Amenities offered on Campus are a fragment of the Wellness Centre, and they have specialized nurses, a physician and a counsellor for HIV/AIDS available to offer health amenities to scholars. Schedules for consultation can be made by phoning or personally at the Medical

Centre. The health care facility is situated at the back of the Welgemoed house, beside the small walker entrance when one exits from President Brand Street (CUT Prospectus, 2014: 119).

2.9.12.1 Services offered include (CUT Prospectus, 2014: 119):

- Unforced Classified Psychotherapy and Analysis (commonly known as VCCT, which stands for Voluntary Confidential Counselling and Testing or)
- Management of slight illnesses
- Traumas and transfers
- Hypertension preliminary examination
- Glucose concentration examination
- Piddle examination
- Gestation examination
- Planned parenthood
- Transfers to suitable remedial facilities
- Medical awareness and guidance
- Management persistent illnesses and associated transfers

These amenities are accessible at no cost to enrolled scholars, and all records are kept stringently classified(CUT Prospectus, 2014: 119) .

2.9.12.2 Notifiable illnesses

Section 45 of the Health Act (1977) requires that certain circumstances should be professed as notifiable (CUT Prospectus, 2014: 122).

2.10 BRIEF MEDIA REPORTS ON THE STATE OF THE SOUTH AFRICAN EDUCATION SYSTEM WITH SPECIAL EMPHASIS MATRIC PASS RATE AND DROPOUT RATES

May people read newspapers. What is reported by newspapers, whether backed by scientific facts or not, has the potential to inform and shape public opinion on several topics, but specifically in relation to this study, the matric pass rate and dropout rates. Table 2.3 below illustrates the biggest-circulating newspapers in South Africa (SA) to paint a picture of how newspapers can influence perception and opinion.

Table 2.3: Daily newspapers Analysis Q1 2017: the biggest-circulating newspapers in SA

Type of newspaper	Circulation totals
Daily newspapers	506 730
Weekly papers	1 436 844
Local papers	355 048
Free papers	6 224 346

If media reports are anything to go by, basic education in SA is in a terrible and perilous state. Again, if media reports are anything to go by, the future looks bleak for education in SA, to put in a very euphemistic way.

To this end, Equal Education (EE) reported in 2017 that learners, teachers, principals, and education bureaucrats are under immense pressure because of the yearly festivity when the nationwide grade 12 grade are announced (Equal Education: 2017). The grade 12 success rate is a frivolous and deceptive indication of the excellence of government schooling predominantly as thorough scrutiny exposes a constant catastrophe in elementary schooling in South Africa. Schools are crippled by difficulties, which, among others, include absence of assistance for initial childcare advancement (also known as Early Childhood development or ECD), overcrowded classrooms as well as lack of support for elementary schooling (Grade R to Grade 3) educators. Astoundingly, the government continues to over-in-invest in Grade 12, when the largest investment should be directed to early grades of schooling (Equal Education, 2017). Equal

Economic and social breakdowns in intellectual results become entrenched, they expand and develop into additionally inflexible circumstances even prior to children beginning with their schooling (Equal Education: 2017). The consequence of mediocre standards of initial childhood growth and mediocre foundation stage teaching is that at the commencement of the schooling journey, the chance to diminish learning breaches and grow the prospects of children, irrespective of their household circumstances, is wasted. Thus, learners develop educational shortfalls and insufficiencies at the exact commencement in the initial grades. This is the original cause of poor achievement in the subsequent, secondary school levels (Equal Education: 2017).

Schools attended by previously-disadvantaged learners, which traditionally catered for black learners exclusively, have continued to be inoperable and incapable of teaching learners how to interpret, transcribe and compute at the suitable grade. By Grade 3, learners in the deprived 60% of institutes are heretofore three years' worth of schooling behind learners of more well-to-do previously whites-only conditions. When these learners are in Grade 9, they are five years' level of learning rearward (Equal Education: 2017).

learners who are unable to read eloquently when they complete Grade 4 are not in the position to comprehend the remainder of the syllabus in a considerable manner in the grades ahead. This is predominantly for the reason that in grades 1 to 3 the syllabus concentrates on teaching learners to recite, while from Grade 4 there is a change to reading to understand (Equal Education: 2017).

In provinces in the countryside like Limpopo, Kwa Zulu-Natal and the, and, schools have less educators per learners than their metropolitan congeners. Furthermore, learner often, are obliged to travel savagely-extensive lengths of space to arrive at school. Altogether these issues influence learning and teaching (Equal Education: 2017).

Table 2.4: Matric cohort registered learners from Grade 2 to Grade 10 to Grade 12

Year in Grade 12	Group registered in Grade 2	Group registered in Grade 10	Grade 12 cohort that wrote matric	Dropout since Grade 10
2015	1,118,690	1,146,285	668,122	41.7%
2014	1,109,201	1,103,495	532,86	51.71%
2013	1,111,858	1,094,189	562,112	48.63%
2012	1,012,892	1,039,762	511,152	50.84%
2011	944,977	1,017,341	496,09	51.24%
2010	1,090,765	1,076,527	537,543	50.07%

Table above 2.4 highlights that a considerable quantity of learner departs from schooling for, among others, the reasons listed below:

- The nonexistence of a concrete primary education basis (as elucidated previously). Learners ultimately end up excessively and remotely behind educationally, creating a discouraging learning environment which is demoralizing, difficult and nerve-wracking, and thus going to school becomes an unpleasant encounter (Equal Education: 2017).
- Schools purposefully deterring or censoring learners with poorly performance from sitting for grade 12 examinations (Equal Education: 2017).
- Destitution compelling learners to stop their schooling in an endeavour to seek employment. This is exacerbated by the comparative absence of incentive in the world of work of someone who has simply a grade 12 achievement, i.e. the ones with an average achievement are merely somewhat more probable to become employed than the ones who did not pass grade 12 (Equal Education: 2017).
- Becoming a learner who attends school regularly is time and again onerous and expensive. The majority of learners have to devote substantial amounts of funds on transportation, or walking vast expanses every single day (Equal Education: 2017).

Former Vice-Chancellor of the University of the Free State, Professor Jonathan Jansen is cited by MyBroadband declaring that South Africa's indifference for aptitude is demonstrated by the manner in which state's guidelines have simplified the learning organization from the 1990s (MyBroadband: 2017). As stated by Professor Jonathan Jansen, South Africa has shaped a diluted Mathematics outflow for the learners who were not successful Mathematics, Life Orientation been afforded acceptability (and an entrance point to higher education-) when in the years gone by, Guidance (or its absence thereof) had no penalties (MyBroadband: 2017).

Professor Jansen is reported as saying transitory ranks in subjects at school are at 30% and at 40%, respectively, and that a departure stage was fashioned at Grade 9 because upwards of half the learners who begin Grade 1 do not progress beyond grade 12 (MyBroadband: 2017). Additionally, extra marks were added to the marks of non-indigenous learners who wrote in English. In excess of one research venture has displayed the increase of makes to brand the nationwide proportion of those who achieved grade 12 appear to be respectable.

Prof Jansen is quoted again in a different article titled Matric Results Are Rigged, saying that Angie Motshekga, the Minister of Basic Education, had lately proclaimed that the proportion of achievement for 2016 was 72.5%, an increase from 70.7% in 2015 (MyBroadband: 2017). According to Prof Jansen, this means that more than 50% of the learners achieved with the obligatory criterion to permit them to be admitted to institutions of higher learning. The report goes further to say the Minister of Basic Education acknowledged educators and learners for working hard, and rejoiced at this development (MyBroadband: 2017).

Thus, according to Prof Jansen, grades were added to the marks of non-indigenous English speakers writing in English. He also referred to the fact that in excess of one research has provided evidence of an adjustment of marks, to make the nationwide proportion of achievement to appear as satisfactory(MyBroadband: 2017) .

Yet despite all the problems plaguing the South African education organization, twice as many students have since 1994 have gone through this system. The puzzle is that this cannot be equated with an instantaneous upsurge in learner flowrate (Bothma, 2016). As it stands, approximately 45% of freshmen depart from institutions of higher learning without attaining their diplomas or degrees. Among the students who persist until graduation, they achieve this with just below half of them taking 5 or additional years obtain their qualification. That is a huge squandering of infrequent pecuniary reserves and it is thus the real crisis of university learning (Bothma, 2016).

Weighing in on the #FeesMustFall, Msila (2016) comments that the momement #FeesMustFall declaration was made, it talked to everyone, because people strongly felt the metamorphosis of schooling, teaching and learning was considerably delayed. Numerous concerned citizen's comprehended and favoured what they perceived to be an optimistic tumult. It is so regrettable to ruin an objective struggle, as it transpired with #FeesMustFall (Msila: 2016). There cannot be remonstration for a larger bibliotheca by obliterating the smaller bibliotheca. In light of scorching constructions and ethnic conflicts on grounds of higher institutions of learning, the community might have considered that it was lost a struggle that could have been readdressed along calmer tracks. Yet Msila (2016) contends that the encounters on campuses grounds of higher institutions of learning were considerably greater than mere disputes for improved schooling, teaching and learning - at their fundamental point was the lament for a fair and equitable community. These were encounters counter to discrimination, for free excellent teaching learning and instruction, and for over-all liberty, particularly for the destitute (Msila: 2016)

The view of Vally, Motala, Hlatshwayo, and Maharajh (2016) is that such stances endeavour to restrict the government's capability in support of marketing processes, amongst them communal-private associations. They further argue that this method is simply a method of bestowing the programmes of private appropriation and accretion into the compass of communal good. It has allowed the growth of what has developed an international schooling, teaching and learning business and thus the rise of business realms unyielding in turning schooling, teaching and learning into a commodity. In this regard, Vally, Motala, Hlatshwayo, and Maharajh (2016) further contend that there are resources incessantly made available for different adoptions created by the state (Vally, Motala, Hlatshwayo & Maharajh, 2016). These comprise the procurement of arms, egotistical developments such as World Cup Soccer grounds and expensive expenditure in imperishable production of power. It is event that the impression of insufficient funding is founded on a precise stroke of philosophy flowing out of traditional financial rational (Vally, Motala, Hlatshwayo & Maharajh, 2016).

While discussing attrition, it is also, essential to look at the education system in which attrition ensues. Does the education system meet the needs of the labour market, i.e. producing graduates who are ready for the world of work? In this regard, Jansen (2016) writes that the current education system of South Africa is in peril. Over the past decades, there has been a decline in accomplishment percentages, accumulative rate and an absence of training for the labour market. South Africa's schooling, teaching and learning arrangement appeared from the initial times of the engineering pirouette when individuals moved to metropolises, thus triggering over-crowding and disorder. By fashioning a mandatory schooling, teaching and learning arrangement, regimes were thus able to prepare and coach the personnel essential for the success of their countries. However, the globe has transformed, and as we approach the fourth industrial revolution, the arrangement should be protracted to cater for the wants of all individuals, and novel heights must be included to cater for specific persons as well as the biosphere he/she exists in.

2.11 DOES THE CURRICULUM AT UNIVERSITY CONTRIBUTE TO ATTRITION?

As mentioned earlier in this chapter, in 2015, South Africa saw the #FeesMustFall movement receive wide media coverage. Thus, it is prudent, for the sake of this study, to weigh in on the encroachment of #FeesMustFall's call for the decolonisation of the curriculum; and how the repercussions thereof might affect attrition. The scholars protesting an increment of the amount required for studying at institutions of higher learning all over the country mentioned that their movement was also a demand for an emancipated, Pro-Africa schooling, teaching and learning. News24 requested a UCT scholar Athabile Nonxuba to clarify what scholars are specifically referring to by emancipated schooling, teaching and learning, and the justification for this demand (News24: 2015).

At this juncture, one can ask what is a decolonised/emancipated curriculum? The description of an emancipated syllabus continues to be an area and space that is not readily conforming to any category of clearly defined set of rules (The Conversation: 2016). There is similarly no lucidity on who is responsible for undertaking this procedural step. It is critical to advance a common understanding and a set of ideal of the denotation of both syllabus and emancipation (The Conversation: 2016).

A philosopher from America, William Pinar, describes syllabus philosophy as the cross-cutting investigation of schooling, teaching and learning encounter. Schooling, teaching and learning encounter denotes over and above only the themes included in an academic programme. It integrates the patterns of conduct, morals, inclinations and global standpoints that get discovered, un-discovered, re-discovered, re-developed, broken down and reinvented, and at the same time learning with the object of obtaining a degree (The Conversation: 2016).

What is emancipation? In relation to the syllabus at an institution of higher learning, , this seems to include replacing the writings of Europeans or the Northern part of the world with home-grown philosophers and indigenous writers. This is intended to impede indigenous institutions of higher learning from being turned to simple continuations of previous colonist. Nevertheless, emancipation of the syllabus is much more delicate than merely substituting philosophers and writers (The Conversation: 2016). If the syllabus encompasses a wider instructive encounter, institutions of higher learning should primarily require an explanation of how they intend to confront the expansion and propagation of syllabi. It is only at that point that they can go ahead with the procedure of emancipation (The Conversation: 2016)

Yet, Modiri (Daily Maverick: 2016) cautions that not all are in favour of the decolonisation of the curriculum by noting that a certain school of thought that is critical in contradiction of the discussion is a lobby categorized as Fallism. This movement is advancing and amassing prevalence in South African government and scholastic deliberations, and, in simple terms, its proponents' content that the scholar campaigners are ineffectively knowledgeable in the fundamental societal philosophies they profess to epitomize, and that additionally, their inequitable susceptibilities, their inconsiderate combativeness, and their inclination for viciousness and now, starting fires, is a product of this ignorance (Daily Maverick: 2016). Several observers, counting in Achille Mbembe (who has been the mostly intuitive in his retribution of the scholar undertaking), Christi van der Westhuizen, Nomboniso Gasa and Richard Pithouse, have released publicly criticised the scholar protests in that regard, speculating that the scholars misjudge the works of notable philosophers such as Frantz Fanon and thoughts such as multidimensionality; that they misinterpret notable characteristics of the fight for liberty in South African unfortunate past, and that they depend on, disproportionately and incorrectly, on African-American women's liberation and anti-segregation (Daily Maverick: 2016). An audio-visual recording of a UCT scholar contending quite assuredly that the way to emancipate the disciplines is to eradicate them all in all, since, as an invention of modernism form Western Europe, they are exclusively foreign and henceforth irreparable, will be beneficial to the traditional critics of Fallism as an indication and justification of their qualm regarding emancipation pf the curriculum as void, radical, deficient in refinement, studious, lacking of essence and intellectually unreliable (Daily Maverick: 2016). But, to be fairly ironic, her mistake demonstrates her argument: the presenting of learning by South African institutions of higher learning as principally the invention of Western Europe, and the inability to acknowledge that some of the foremost science-based schools of thought (among others, medicine, quantum mechanics, astrophysics, maths,) have profound traditions in India, , China and Africa , for instance, is exactly what gives rise to such stern openings in scholars' learning base (Modiri, Daily Maverick: 2016).

Dikgang Moseneke, the previous Chief Justice of South Africa, offers a different perspective on the #FeesMustFall movement. For starters, according to him, the debate about #FeesMustFall movement induces us to begin where it is supposed to - the Constitution of the Republic of South African (Calling for a CODESA of education: 2016). The latter statement holds true, in the opinion of Moseneke, since it is representative of our shared principles on the self-governing development from 1994. Moseneke goes further to say that the call for free admission to tertiary schooling, teaching and learning, including institutions of higher learning and TVET schooling, teaching and learning, is a virtuous idea and that it is lawfully binding. Nevertheless, Moseneke cautions that all important rights and the right to admission are prone to boundaries. (Calling for a CODESA of education, 2016).

One thing that is unacceptable is the violence that has characterised the #FeesMustFall movement. To this end, Moseneke (2016) declared that the vehemence that has raised its head, associated to the requests that #FeesMustFall movement, is absolutely deplorable and should cease immediately (Calling for a CODESA of education: 2016). He advised fledgling scholars at institutions of higher learning to not casually philander with words such as revolt and vehement rebellion. A revolt, Moseneke remarked, can be fitting only where there is no authentic possibility for a negotiated settlement. There is thus no pragmatic validation for misapprehensions of toying around with an armed confrontation inside a steady culture with the ability to reach an of amicable rectification (Calling for a CODESA of education, 2016).

One way of looking at curriculum transformation is through the theoretical framework of bricolage. Mahlomaholo (2013: 379) summarises bricolage by saying that it is a theoretic context that is used to comprehend and augment the education of the postgrad scholars and researchers operating as a group. Bricolage is further defined as a metaphor for an investigative method that generates something out of nothing and puts to use that which is obtainable to accomplish new objectives. Mahlomalo (2013: 379) advises that bricolage is about discovering countless and novel methods to solve true to life complications by putting into use that which is available in the setting (Mahlomaholo, 2013: 379). Bricolage is thus not straightforward method of inquiry but a method of inquiry that recognizes and act together with the inconsistencies and discrepancies to interlace a multifaceted manuscript of explanations to the acknowledged complications. It thus employs manifold approaches, dissimilar written methods, and diverse capitals, distorting well-ordered limitations of scientific areas (Mahlomaholo, 2013: 379). In a nutshell, it fragments the inflexibility of a solitary method. From the above explanation, this study is convinced that the decolonisation and subsequent transformation of the university curriculum, though outside the scope of this study, is a realistic appeal; taking into consideration Moseneke's call for conference on schooling, teaching and learning in South Africa(Calling for a CODESA of education, 2016) and Mahlomalo's (2013: 379) explanation of bricolage.

Mahlomaholo (2013, 379) explains how bricolage as the theoretic agenda for an investigation venture with the title Sustainable Learning Environments (SuLE) is put to use to acknowledge and improve the scholarship of the postgrad scholars and researchers collaborating as a team on this venture. Here, Mahlomaholo (2013, 379) further acknowledges that the attrition rates are high when he comments that a research of this kind had become pressing and essential since studies show that that the proportion of erosion is very high, not only at the PhD level, but in South Africa and internationally (Mahlomaholo, 2013: 379). Attrition continues to drain the meagre resources made available by the tax paying communities. The condition, with reference to South Africa, deteriorates when one collapses this proportion in relation to ethnic, a male and female, and societal standing. Hence bricolage is practiced because up to now, conformist and rectilinear methods to postgrad education have not produced the anticipated stages of output (Mahlomaholo, 2013: 380).

With regards to attrition among post-graduate students, (Mahlomaholo, 2013: 380-381) reports that to date since bricolage has been used, diverse approaches have been confirmed as a means of gaining attention of the conundrum of astronomical heights of abrasion. A number of these approaches have given attention to the institute where scholars are registered, based on the view that scholars will realise that it is more convenient to transfer within the organization if fitting procedures were effected (Mahlomaholo, 2013: 380-381). A great sum of subsidy in a number of institutes like this was attained so as to subsidize the postgrad scholars' subsidies, investigative endeavours, apparatus for investigation , tours place of delivery , reading room explorations and other structural material requirements, training in all aspects of doing research, providing scholars with the chance to exercise the expertise and wisdom, giving capacity to the overseers and inducements in the kind of income upsurges or a one-time imbursement for the fruitful administration of a postgrad scholar have been put into operation (Mahlomaholo: 2013, 380-381). Unfortunately, even under ideal circumstances such as the ones mentioned above, with the finest administrator conceivable and adequate occasions for the scholar to acquire knowledge, the accomplishment proportion was still not meaningfully increased.

2.12 THE CUT RESIDENCY POLICY

In an endeavour to understand how much a period a student is allowed by the CUT statutes to complete his/her degree, this study made numerous attempts, which were unsuccessful, to get hold of the CUT Residency Policy, or any policy document which might address this issue. The purpose of seeking this policy was an endeavour to determine how it addresses attrition.

This study referred to section 3.9: Academic review of student progress in the 2017 CUT Calendar (2017: 189) which states that:

3.9.1 A scholar is measured to be scholastically ineffective in the following instances:

- In the case of a first-year student: Failing all subjects for which he/she is enrolled (2017: CUT Calendar (2017: 189); and
- With regards to a senior student: Failing on two consecutive attempts, 50% or more of the subjects for which he/she is enrolled, and/or cancel some or all modules or the

course for which he/she is registered after the registering day of regulation (2017 CUT Calendar: 2017: 189).

3.9.2 In the instance of full-time scholars, the diploma/degree should be accomplished in the least specified time of studying, together with an added accompaniment/addon of the partial the least time of studying. Essentially, this means that the amount of time will be rounded-off to the following complete year of study, which implies that, for instance, a diploma/degree that takes three years to complete must be accomplished within the paramount period of five years (2017 CUT Calendar, 2017: 189) .

3.9.3 Students who are registered on a part time basis should obtain their diploma/degree in twice the least specified time of studying permissible, which means that, for instance, a diploma/degree that takes three years must be accomplished within the paramount period of six years (2017 CUT Calendar, 2017, 189).

3.9.5 Diagnosis of inadequate scholastically advancement: A scholar is deemed as scholastically vulnerable by virtue of the similar measures as specified in paragraph 1.8.1.1 above, nonetheless, applicable only to the continued valuation symbols as on the third Monday in April (for the first semester), or the third Monday in September (for the second six months), or the day for work instantly afterwards. In making this resolution, relevant school of the university should make sure that a continued validation symbol is recorded for each and every student on an official database. The research hopes to refer to CUT data to determine if indeed the above are implemented as stated in the 2017 CUT Calendar.

2.13 STUDENT RETENTION

Based on the work of Mouton *et al* (2015: 15), this study finds it prudent to refer to the work done by Hagedon (2006, 14- 17) regarding retention since it plays a crucial role in this study. Was it retention? According to Scott (2005, 4), retaining scholars is focused on how elongated a time of study scholars persevere in their scholarships and particularly registers what proportion of scholars remain studying until they have effectively accomplished their studies. This definition was also cited by Mouton *et al* (2015: 15). It is anticipated that the outcomes of this research will shed light on the type of retention that is prevalent, thus revealing the proportion of scholars that perseveres until they finalize their studying, and those abandon their studying, among CUT FETs in Somatology and HRM. Here, Hagedon (2006, 14-17) points out four elementary kinds of retaining scholars, namely, institutional, system, discipline (major) and within a particular course:

- *Institutional Retention:* Institutional retention is the most basic and easy to understand. Essentially, institutional retention is the measure of the proportion of students who remain enrolled at the same institution from year to year Mouton *et al* (2015: 15).
- *System Retention:* System retention focuses on the student and turns a blind eye on which institution a student is enrolled. Using system persistence as a measure, a student who leaves one institution to attend another is considered a persister. Therefore, system persistence accommodates the frequent occurrence of transfer or re-enrolment at another campus, in another state, or in another institutional type Mouton *et al* (2015: 15).
- *Retention within a Major or Discipline:* Another type of retention takes a more limited view of the topic by viewing retention within a major area of study, discipline, or a specific department. For example, a student who declares Engineering as a major but then switches to Biology may be retained, in an institutional sense but is lost to the College of Engineering. Non-persisters in one discipline may earn a degree in another major within the institution of original entry and thus be institutionally retained, but not within the major or discipline (Mouton *et al*., 2015: 15).
- *Retention within the course:* The smallest unit of analysis with respect to retention is measured by course completion. Studying at the course level allows the specific determination of which courses are not being completed, even though a student may be retained within the institution (Mouton *et al.,* 2015: 15).

2.14 ADMISSION REQUIREMENTS: HRM and SOMATOLOGY

Reference is made to the admission requirements for HRM and Somatology, respectively, in an attempt to determine if the FTEs in these programmes met the admission requirements and whether they have a background to some of the modules in these programmes. As Tables 6 and 7 show, this was not always the case among the 2013-2016 cohort:

Table 2.5: HRM 2013-2016 Cohort: Entry requirements (CUT Calendar, 2019: 346-347)

HRM 2013-2016 CHORT with Accounting, Mathematics and Mathematics N3 (SG) in MATRIC	No
HRM 2013-2016 CHORT	467
Those who had Accounting	17
Those who had Mathematics	56
Those who had Mathematics N3 (SG)	1

Some of the modules in the National Diploma: HRM, is Accounting for Personnel Practitioners, yet only a few students in the 2013-2016 cohort, as Table 2.5 shows, seventeen (17) students had Accounting, fifty-six (56) students had Mathematics and one (1) student had Mathematics N3 (SG) in Matric, respectively. Can the argument be made that these students were equipped and prepared for this programme?

Table 2.6: Somatology 2013-2016 Cohort: Entry requirements (CUT Calendar2019: 541-542)

SOMATOLOGY 2013-2016 CHORT with Life Sciences, Physical Science and Biology in MATRIC	**No**
SOMATOLOGY 2013-2016 CHORT TOTAL	65
Those who had Physical Science	65
Those who had Life Sciences	59

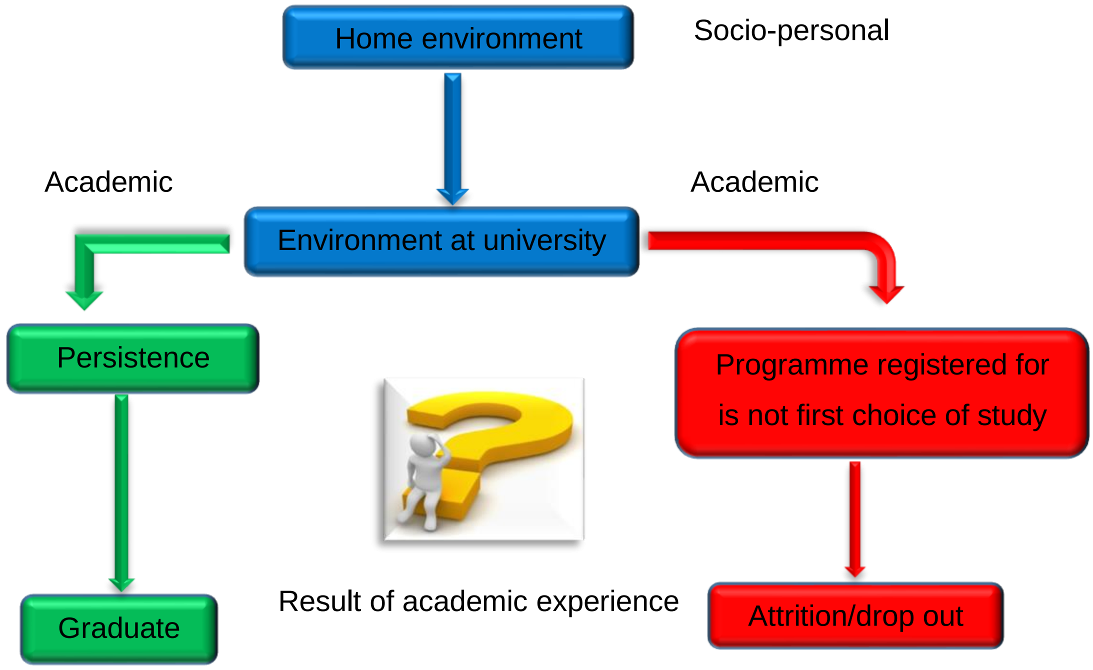
As Table 2.6 shows, all students had Physical Sciences, while 2 students did not do Life Sciences in Matric, respectively. Here a point can be made than an overwhelming majority of students met the entry requirements for Somatology.

2.15 CONCLUSION

There are many causes of attrition. This statement is supported by Wilson, Eva and Lobb (2012: 579) who remind us again that reasons for students to decide to leave an academic course are multifaceted and encompass a multitude of factors. This combination of the causes of attrition is best summed up by the passage below from the work of Wilson, Eva, and Lobb (2012, 579):

Tinto (1975: 1987) suggests that retaining of scholars is a purpose of the connection between scholarly and non-scholarly stimuluses. The combination of the scholar's qualities and characteristics before acceptance to an institution of higher learning, and the interplay between the scholarly and communal arrangements of the milieu of an institution of higher learning play a role (Wilson, Eva, & Lobb (2012: 579). The scholar's qualities and characteristics before acceptance to an institution of higher learning incorporate household context, race, and secondary school marks and achievement. Tinto's study of the works on retaining of scholars convinced him to come to the conclusion that the healthier the scholarly and communal arrangements at an institution of higher learning, the better the probability that scholars will persevere (Wilson, Eva, and Lobb, 2012: 579). Bean's (1980) paradigm is comparable but also comprises of financial factors and influence of contemporaries together with as scholastic achievement. Both the pressure that exists before acceptance to an institution and aspects associated with being a freshman s contribute to retaining scholar while the progress to the second academic year (the point at which Bean noticed the highest dropout proportion) Wilson, Eva, and Lobb (2012: 579).

Graph 2.2: Causes of attrition relevant to this study



According to Graph 2.2:

- The socio-personal factors are those that are related to the FTEs home environment, SES, his/her personality, etc.
- Academic factors are the environment at university, the available student support, whether the programme registered for is the students' first choice of study or not.
- Result of academic experience refers to whether the FTEs will persist until they graduate (taking into consideration the time FTEs take to complete their qualification) and whether FTEs will drop out of their studies.

The above diagram has depicted the causes of attrition relevant to this study, thus indicating how each contributes to attrition.

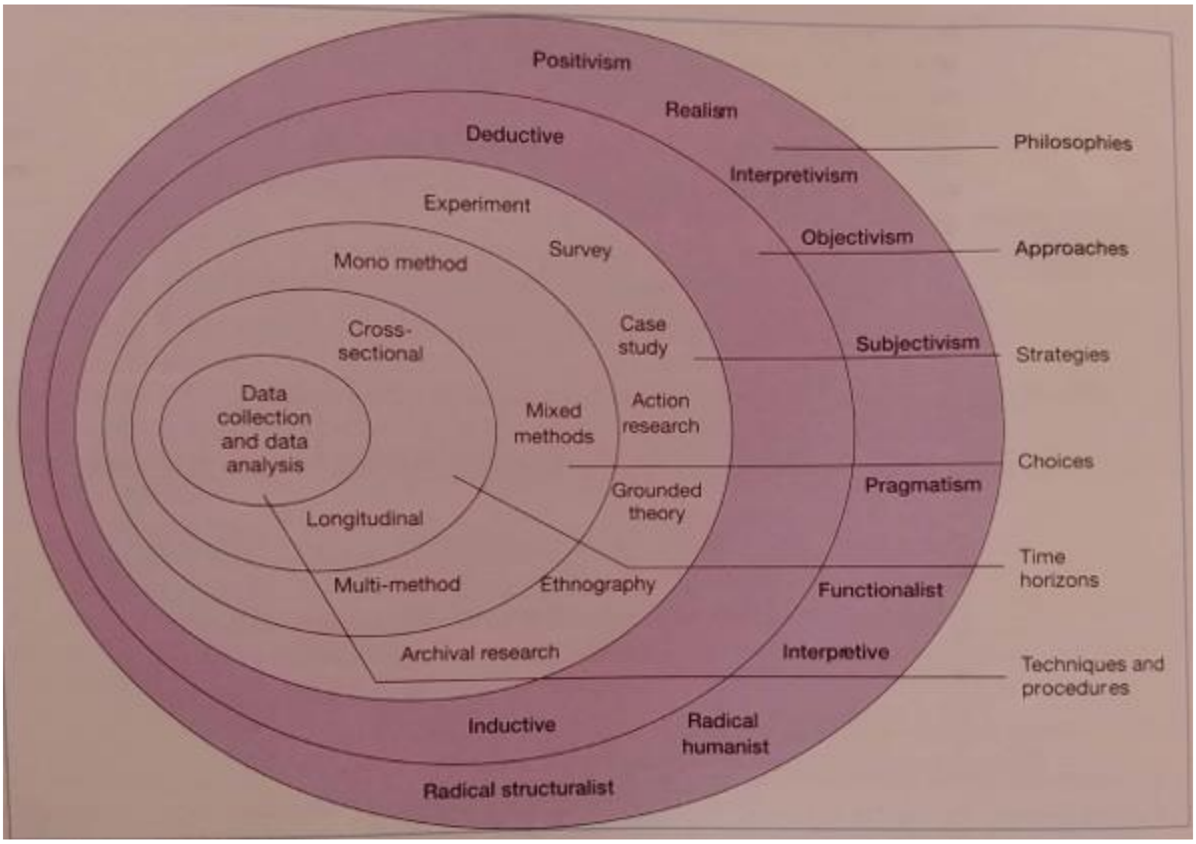
CHAPTER 3: RESEARCH METHODOLOGY RELEVANT TO THIS STUDY

3.1 INTRODUCTION

It is prudent to start this section by explaining the investigative method which was used in this study. This will be done by looking at the research philosophy, then the research approach and lastly the research design. Each of these will be discussed separately.

3.2 RESEARCH PHILOSOPHY/INVESTIGATIVE CONVICTION

The research onion (Saunders, Lewis & Thornhill, 2007: 102) outlines the process of research which this study found to be relevant. The starting layer of the research onion is the investigative conviction that was to be followed in this study. Melnikovas (2018: 30) states that the research onion is extensively used in social sciences for building of theoretical framework of the investigation.



Picture 3.1: Research onion: Saunders *et al*., 2007: 102

3.1.1 Epistemology

Epistemology was the stage at which this study began. According to Toohey (2007, 5), as reported by Saunders e*t al* (2007: 102), *epistemology* emanates from the two words in Greek, namely episteme which means comprehension/understanding, and logos which means a discipline/science, and thus, epistemology denotes the understanding of a discipline. As practices in a doctrine, the word denotes the understanding and acknowledgement of confidence in humanoid understanding and awareness. Central to epistemology is human knowledge and its sources and origins (Saunders *t al* ., 2007: 102, Melnikovas, 2018: 33. As it stands, epistemology deals with issues relating to the constituents understanding and awareness that is tolerable in a specific area of learning (Saunders e*t al*., 2007: 102). This statement holds water for the study in the sense that it is based on the work that was done by others beforehand. Thus, the intention of this research is to add on to, and make a contribution to, the existing assemblage of scientific knowledge (Saunders *et al.,* 2007: 103).

Moreover, in epistemology, the objects of an investigation exist separately and independently from the study, and for that reason, it can be argued that the information gathers have the lowest possibility of being susceptible to prejudice and bias and are thus more impartial (Saunders *et al*., 2007: 103). This statement is relevant to this investigation since the current scholar's line of work is not linked to the population of this study. In this way, the study thus had less authority on the information that was assembled. In doing the above, this investigative endeavour embraced the positivist position to the advancement of understanding (Saunders *et al*., 2007: 103).

Epistemology endeavours to respond to cardinal enquiries like:

- Is understanding probable or is it merely a conviction?
- Is discipline/science honestly impartial and above uncertainty?
- Are matters in existence that we are unable to question?
- How much indication is desirable for us to be sure?
- Can we have conviction our consciousness? (Introduction to epistemology, n.d: 2)

Positivism is discussed next.

3.1.2 Positivism

The word *positivism* was conceived in the last half of the 19th century by one of the founding members of Sociology, Auguste Comte. Comte was of the belief that humanoid cognitive consciousness flows over three independent traditional levels, namely: the theological/religious phase, the metaphysical/abstract phase, and the science-based phase. In the theological/religious phase, inherent and societal phenomenon are elucidated by referring to divine power. In the metaphysical/abstract phase, definitive sources are required to clarify such phenomenon. In the science-based phase, efforts to elucidate phenomenon are deserted and abandoned, and experts pursue instead the discovery of relationships and associations among phenomenon (Positivism, n.d: 1). The main objective of positivist investigation is to produce explanatory organizations or causal relations that eventually lead to estimation and influence of the trends in question (Park, Artino & Konge, 2019: 690).

A researcher following the principle of positivism, in the words of Remenyi, Williams, Money and Swartz (1998: 32) prefers working with societal realism which is observable and that the final output of such investigative inquiry can become the standards, such as generalisations in the mainstream of a particular field. Here it is important to note that only phenomenon that can be observable will give rise to the creation of plausible knowledge. To produce an investigative strategy to amass this knowledge, a scholar will probably to employ current philosophy to advance suppositions, much like this study has referred to the work done earlier by others. Saunders *et al* (2007: 103) remark that these suppositions will be verified and affirmed, in entirety or a portion thereof, or disapproved, resulting in the supplementary advancement of philosophy which then may be verified by additional and supplementary investigation. Thus, the developed suppositions, as is the case in this study, will lead to the gathering of facts by means of data collection, rather than impersonations, that afford the foundation for successive examination of the suppositions that were developed. Such realities are constant and persistent with the concept of evident societal realism.

An additional component of the positivist method that is equally imperative to investigation is that an investigative inquiry is carried out, in as much as probable, in a manner that does not make any judgements (Saunders *et al.,* 2007: 103) Here, this study was separate to the procedure of collecting data due to the fact that that there was nothing that the researcher could do to modify the constituents of the data that were gathered (Saunders *et al*., 2007: 103). Park, Artino and Konge (2019: 691) call this dualism, i.e., separation of scholar and participants in survey design and data gathering to diminish predisposition.

It is regularly argued the positivist investigator will be probable to employ an extremely regulated method for the purpose of facilitating duplication. Additionally, the prominence was on measurable data that allowed themselves to numerical breakdown of data for interpretation (Saunders *et al.,* 2007: 103). This holds true to this study as it might be replicated and thus produce the same or different results elsewhere.

3.3 RESEARCH APPROACH/ INVESTIGATIVE CONVICTION: DEDUCTION

The subsequent stratum of the research onion, which is relevant to this investigation, is the research method of *deduction* as articulated by Saunders *et al* (2007: 117): Deduction, Saunders *et al* (2007: 117) explains, largely attributable to what is thought of as an academic investigation. Thus, deduction encompasses the advancement of a philosophy that is impinged to stringent, punctilious and meticulous testing. In this study, the hypotheses were tested and the results thereof are articulated in Chapter4. In the deduction method, the regulations provide the foundation of elucidation, allowing forethought of phenomenon, predicting their manifestation and therefore permitting them to be measured (Saunders *et al*., 2007: 117). Remler and Van Ryzin (2011: 18) concur by saying that social research must always start with theories and test these with empirical predictions.

Saunders *et al* (2007: 117) make reference to work done by Robson (2002) and list five consecutive phases by means of which deductive investigation will develop:

1. Inferring a supposition (a measurable proposal about the connection amongst two or additional perceptions or parameters) from the theory;
2. Articulating the supposition in operative positions (that is, representing precisely how the perceptions or parameters are to be evaluated), which suggests an association amongst two or additional perceptions or parameters;
3. Examining this operative supposition (this will include one or additional approaches);
4. Testing the operative supposition of the investigation (it will either incline to approve the philosophy or specify the necessity for its alteration);
5. If required, adapting the philosophy in view of the outcomes.
6. An effort is then undertaken to confirm the amended philosophy by returning to the initial phase and recapping the entire sequence.

Furthermore, deduction exhibits numerous significant features:

Primarily**,** there is endeavour to elucidate fundamental associations among parameters. In this study, the causes of attrition from various literary sources were identified. After these were studied, it became clear that there seems to be a relationship between the students' home environment, the university environment, and students not being able to register for a programme which was their first choice of study. Consequently, hypotheses were developed that stated that attrition is a result of a combination of factors. Quantitative data were collected to test these hypotheses. Important differences emerged among the causes of attrition relevant to the study, thus providing an opportunity to employ another significant feature of the deduction method, i.e. mechanisms to permit the examination of suppositions. These examinations helped to guarantee that any alteration in the causes of attrition was also considered (Saunders *et al*., 2007: 117-18). For the purpose of pursuing the value of scientifically acceptable stringency, deduction commands that this study have to be independent of what was being observed. This was possible as the scholar was involved only the collection of observable data (*Saunders et al*., 2007: 118)

An additional significant distinctive feature of the deduction approach is that perceptions require to be put into operation in a manner that permits evidence to be evaluated numerically. In this study, attrition was being investigated. Thus, just what constitutes attrition had to be identified by asking: do the students' home environment, the university environment and students not being able to register for a programme which was their first choice of study contribute to attrition? What was being followed here was the philosophy of *reductionism*, which commands those complications are comprehended to a large extent if they are abridged to their most basic conceivable components (Saunders *et al*., 2007: 118, Besnard and Hunter, 2014); hence this study investigated the causes of attrition by dividing them into hypotheses (namely, students' home environment, the university environment and students not being able to register for a programme which was their first choice of study)

The concluding distinctive feature of the deduction method is *generalisation*. For none to be in the position to make statistical generalisations about uniformities in humanoid societal conduct, it is fundamental to choose samples of adequate mathematical scope (*Saunders et al*., 2007: 118). Hence, all the 2018 FTEs in Somatology and HRM who were willing to take part in this study were sampled.

According to Hyde (2000: 83), the deductive is an intellect that tests hypotheses in a procedure which begins with an established (determined) philosophy or the accepted general statements (for this study, the established theory was attrition), pursues to test if that philosophy refers to precise occurrences and whether the acceptance of official deductive measures can signify an imperative phase for guaranteeing belief in numerical research conclusions. Lastly, Hyde (2001: 82-84) argues three prominent points that support deduction, firstly, the conventional understanding that numerical investigation scrutinizes data which are figures while qualitative investigation scrutinizes information which are chronicle events, secondly, scholars numerical endorse the positivist' standard of a particular discipline while qualitative scholars endorse a relativist' standard and thirdly, it can be contended that this does not completely nor precisely designate the procedures assumed by quantitative and qualitative scholars in reality. An important difference between quantitative and qualitative procedures is in the following way: Qualitative procedures pursue, as their method to define the universal features of a population while ignoring the particulars of respectful specific components under study. A quantitative method, on the other hand, could attraction an enormous and demonstrative specimen from the population being studied, quantity the characteristics and behaviour of that specimen, and endeavour to make generalisations concerning the entire population. A couple of the specific components of the population could probably not equate with the rules of behaviour and characteristics of this accumulated population design; it could probably be the instance that no single solitary component corresponds to the universal feature of the population (Hyde, 2001: 82-84).

3.4 RESEARCH DESIGN/LAYOUT OF THE INVESTIGATION BY THIS STUDY

The research design/layout of the investigation by this study is the overall strategy of how this study went proceeded to answer the interrogative issues it asked about. The research layout of the investigation considered once the scholar has decided the particular question to be answered and has operationalized the variables and inquiry question into an unambiguous, quantifiable hypothesis (Marczyk, DeMatteo & Festinger, 2021: 123).

It comprises apparent purposes, emanating from this study's interrogative issues, specifying the resources whence this study intended to gather the required information, and also considered the limitations that would inescapably come forth (e.g. accessing required information, period, site and the amount of cash that would be required in addition to deliberating the moral/ethical concerns). Critically, it had to echo the detail that this study had prudently thought out why a specific layout of the investigation was to be employed. Thus, there had to be specific reasons, and justification why, for example, this study chose to conduct research among FTE's in Somatology and HRM. The validation should at all times be grounded on the interrogative issues and purposes in addition to being constant with the investigative conviction pursued in this study (Saunders *et al*., 2007: 131)

An additional crucial fact to consider is that a clear distinction should had to be made between design and tactics that were to be employed in this study. The design was concerned with the plan of this study, while tactics were concerned with the fine details of the gathering of the information and the breakdown of this data for interpretation. Conclusions around strategies meant for this study to be straight forward regarding the various numerical and qualitative data gathering procedures (e.g. surveys, meetings, focus clusters, printed data) and subsequent numerical and qualitative data analysis procedures. Conclusions concerning the theme, the place, the time, the cost involved, by what measures regarding the investigation or the enquiry being made up the layout of the investigation/research design for this study. The layout of the investigation is the prearrangement of circumstances for gathering of data and breakdown of that data for interpretation in a method that intends to bring together the significance to the objective of the research while keeping the budget in mind. The layout of the investigation is the abstract construction within which an investigation is carried out. It establishes the outline for the gathering, quantifying, and breakdown of data for interpretation. As such, the layout of the investigation included a plan of what this study would undertake, from lettering the premise and its functioning implications to the concluding breakdown of data for interpretation (*Saunders et al*., 2007: 131-132,). More specifically, the research design decisions happened to be in respect of:

- What was the research centred upon?
- Why was the research underway?
- At which location would the research be conducted?
- What kind of information was necessary?
- At which location could the necessary information be discovered?
- What time limits would the research contain?
- What would be the make-up of the specimen?
- What procedures of information gathering will be employed?
- The manner in which the information that was collected will be examined?
- In which manner will the description of the result can be arranged? (*Saunders et al*., 2007: 131-132).
- By when do you require your statistics? (Owens, 2020: 15)

3.4.1 The purpose of this research: an explanatory study

The way in which research questions were asked resulted in this being an *explanatory study*. However, it is worth noting that Saunders *et al* (2007: 131-132) refers to Robson (2002) who cautions that the objective of one's inquiry might have to be altered as the study progresses.

This was explanatory research in that the aim was to establish a causal connection between variables/parameters (the parameters in this research being the students' home environment, the university environment, and students not being able to register for a programme which was their first choice of study). Emphasis was on learning about a condition or an issue (attrition for this study) for the purpose of explaining the relationships amongst the parameters mentioned earlier. Such as, for instance, quantitative data on the university setting might show a relationship between a negative perception of the CUT, Free State, Bloemfontein and not being able to register for a programme which was their first choice of study. Numerical test such as determining the connection amongst parameters (correlation) so as to obtain a greater understanding of the connection, (Saunders *et al*., 2007: 134) were made, and the outcomes of exploratory exploration provided substantial insight into a particular situation. (Akhtar, 2016: 75).

Finally, it is worth mentioning that descriptive investigation concentrates on enquiries that ask why phenomena occurs. For instance, it is one thing to define the degree of criminal activity in a sovereign state, to scrutinize tendencies of criminal activity over a stated time-period or to make a comparison of the instances of criminal activity in various independent states, while it is an entirely different matter overall to establish clarifications regarding the reasons the proportion of criminal activity is as increased as it is, the reason certain categories of criminal activity are snowballing or the reason the proportion of criminal activity is increased in certain independent stats as compared to the other. The manner in which academics enhance the layout of their investigations is essentially impacted by that fact that the investigative inquiry is descriptive or explanatory. It influences what data is gathered (What is Research Design, 2). Thus, this study sought to explain why is there attrition among FTEs in the HRM and Somatology programmes.

3.4.2 Research strategy: Survey

Saunders *et al* (2007: 135) advice that the selection of investigation to be conducted will be led by the extent of existing knowledge available, the investigative inquiries and purposes, other available resources and the amount of time dedicated the study as well as the study's own philosophical underpinnings. It is, however, crucial to bear in mind that research approaches must not be assumed of being cast in stone. It is conceivable, for instance, to employ the survey approach as part of a case study.

The survey strategy was chosen because as Saunders *et al* (2007: 138) elucidate, it allowed for the collection of information from a considerable populace in an extremely reasonable manner. Moreover, surveys are frequently attained by means of an inquiry form or a questionnaire administrated to a specimen and where the information is harmonized, thus permitting simple comparability. Additionally, the survey approach is generally perceivable as the commanding approach by scholars and academics and is both reasonably simple to elucidate and comprehend (Saunders *et al*. 2007: 138). It is imperative to take cognizance of the fact that an inquiry form is not the sole data gathering procedure that pertains to the survey approach. Structured/organized interviews, where harmonized interrogations are requested of all respondents, similarly often pass into this approach (Saunders *et al*. 2007: 139).

The survey approach allowed this study to gather numerical data, which was methodically examined by a statistician who had the required competencies for this task, by means of descriptive/explanatory and inferential/implications statistics. Moreover, the data that was gathered by employing a survey approach can be employed to propose probable motives for specific associations amongst parameters and to yield representations for those associations (*Saunders et al*. 2007: 138). Employing a survey approach provided this study additional regulation over the investigative procedure, and when collecting the specimen, it was feasible to produce conclusions that could be applied to the entire populace at an economic rate, thus eliminating the need to collect information from the entire populace (Saunders *et al*. 2007: 138).

Glasow (2005: 3) concurs and mentions that a survey is employed to determine if a postulated conclusion exists in the specimen or not. Here Saunders *et al* (2007: 138-139) caution that this study would need to guarantee that the specimen was demonstrative, the layout and the pilot/trial information and the data collection tool were acceptable and attempt to guarantee respectable feedback.

Glasow (2005: 1) summarises the following advantages of surveys:

- Able to obtain data from enormous specimen of the populace.
- Very suitable to collecting demographically- accurate information that define the configuration of the specimen.
- Comprehensive in the kinds and quantity of parameters that can be investigated.
- Need the lowest capital to create and distribute.
- Comparatively simple for creation of abstractions.
- Useful to invoke data related to attitudinal stances that are alternatively problematic to quantity by means of empirical procedures.

3.5 COMBINING QUANTITATIVE/NUMERICAL AND QUALITATIVE METHODS AND PROCEDURES/PROCESSES

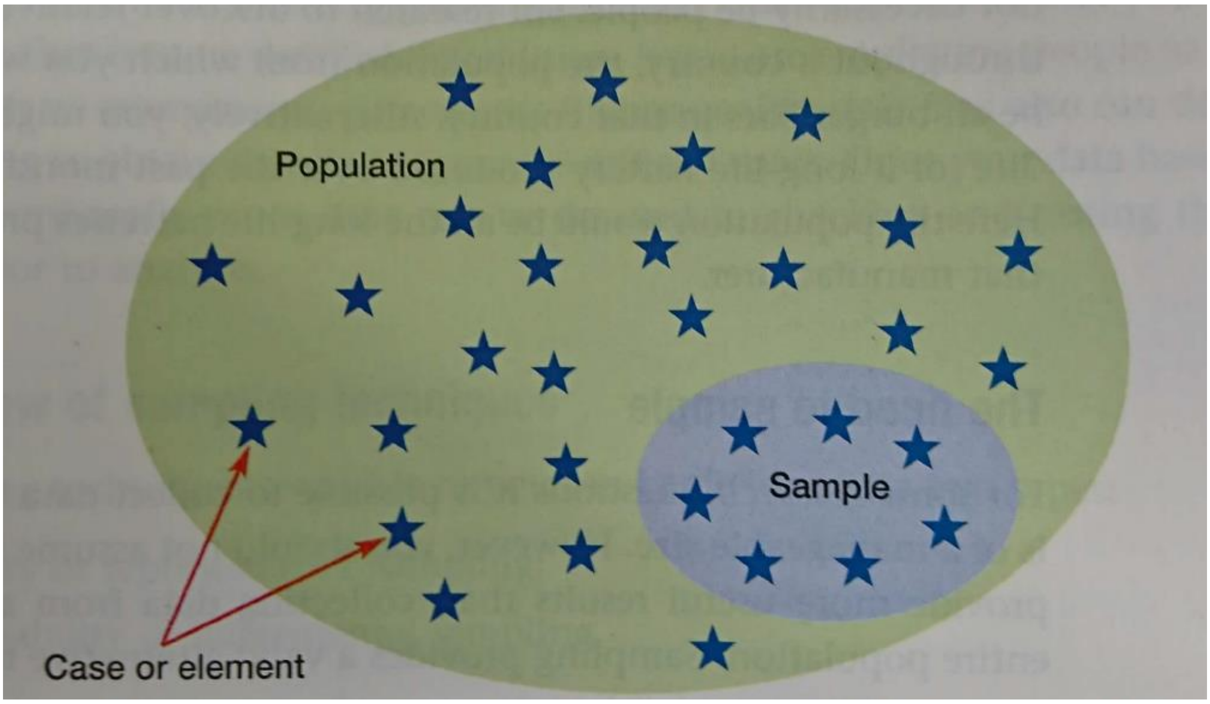
At the onset, this study aimed to combine qualitative techniques (by conducting interviews) and quantitative techniques (by distributing questionnaires). However, due to the unwillingness of the HRM and Somatology FTEs to participate in interviews, only questionnaires were used. The HRM and Somatology FTEs cited their workload as the reason for not having time to participate in interviews. However, the qualitative techniques are included in this discussion because a questionnaire with both open-ended and close-ended questionnaire was employed in this investigative inquiry. According to Saunders *et al* (2007: 145), one method of differentiating between numerical and qualitative methods and processes is that the former emphasizes the numerical, while the latter emphasizes on the wording. Quantitative techniques predominantly refer to any data gathering method (like a questionnaire). On the other hand, qualitative techniques are used predominantly as a synonym for any data collection technique (such as an interview) or data analysis procedure (such as categorising) that generates or uses non-numerical data. It also involves process of breaking down the data (such as graphs or statistics) that generate numeric data.

In selecting the suitable research technique for this investigation, as explained earlier, this study used a questionnaire with both open-ended and close-ended questions for data collection. Thus, it can be argued that, although a questionnaire was used, more than one gathering of data and breakdown of data for interpretation technique of combined techniques was employed to respond to the questions of the investigation in this study. An investigation employing mixed/combined techniques, as Saunders *et al* (2007: 147, Sandelowski, 2000: 248) continues to explain, essentially puts to use quantitative and qualitative data gathering procedures and breakdown of data for interpretation techniques either simultaneously (corresponding), consecutively (chronological) but does not merge them. In other words, even though combined methods of investigation employ quantitative and qualitative at the same time at the investigative level, analysis of quantitative data is conducted quantitatively, and qualitative data analysis is carried out in a qualitative manner (Saunders *et al*. 2007: 145-146). The benefit of employing combined techniques lies with the fact that it permits for the separation, splitting and breaking down of data (triangulation) to be conducted (Saunders *et al*. 2007: 145-146).

Sandelowski (2000: 246-248) remarks that supporters of combined techniques of investigation have contended that the complexity of human curiosities merits additional multifarious investigative strategies to record these. In this regard, it is worth noting that combined techniques research investigation is tangibly implemented at the procedure stage of the investigation: meaning at the level of selecting specimen, gathering of data and breakdown of data for interpretation. Importantly, investigations that employ mixed methods are not combinations of standards, best understood as viewing positions of inquiry in themselves, but are instead standards that are considered in what methods academics select to meagre, and how and why they want to merge them. The paradigm level refers to the unique existence (consideration of realism), philosophical (consideration of understanding and the association between the one who knows and that which is to ne discovered and thus known), procedural (consideration of the method of investigation), and ethical (consideration of morals) stand points. At the methodological level, combinations can be put to use to enlarge the range of an investigation as academics pursue to record proportions that are connected to procedures of a subject of curiosity that is of interest to the study. Thus, various facets of realism open themselves to diverse approaches of investigation. However, the diverse proportions of manifestations may be connected to procedures employed in a studying that the various proportions may be best recorded by diverse procedures. Approaches, like standards, are not precisely connected to methods. For example, the grounded theory may be produced by putting to use a range of qualitative and quantitative data gathering methods and resources. Furthermore, approaches are not consistently connected to standards.

3.6 CHOOSING SPECIMEN/SELECTING SAMPLES

When sampling the population, it might be practicable to gather and scrutinize data from each conceivable instance or member of a cluster. The latter is called a census. Nevertheless, for numerous investigative questions and aims, it would be impracticable for some studies to either to gather or to scrutinize all the data obtainable owing to limitations of currency, period and accessibility (Saunders *et al*., 2007: 204; Alvi, 2016: 11). Hence, procedures for selecting specimen afford a variety of approaches that permit studies to decrease the quantity of data to be gathered by bearing in mind that only data from a subcategory rather than all probable instances or components. Certain investigative questions will necessitate specimen data to universal judgements about all the instances from which the specimen was collected. The entire collection of instances from which a specimen is collected is known as a populace (Saunders *et al*., 2007: 204-205). Picture 3.2 below clearly illustrate population, sample and individual cases.



Picture 3.2: Populace, specimen and different instances: Saunders *et al* (2007: 205).

Thus, populace alludes to all the membership who meet the specific standard quantified for an investigative study or research. It is worth noting that a populace may be standardized or assorted. A standardized populace is one in which all its components are identical to each other in all features, which means that each component has all the qualities that satisfy the prescribed standards of the intended populace. Variables that make a populace heterogeneous vary greatly from research to research. A populace is said to be varied when its components are not identical to each other in all features, thus a single distinguishing component is not identical amongst all the components, while they meet the remainder of the standards that describe the intended populace. Common components that brand a populace as varied are gender, age, ethnicity, socioeconomic status, etc. (Alvi, 2016: 10)

It would be unfeasible to study the whole populace due to 3 chief explanations:

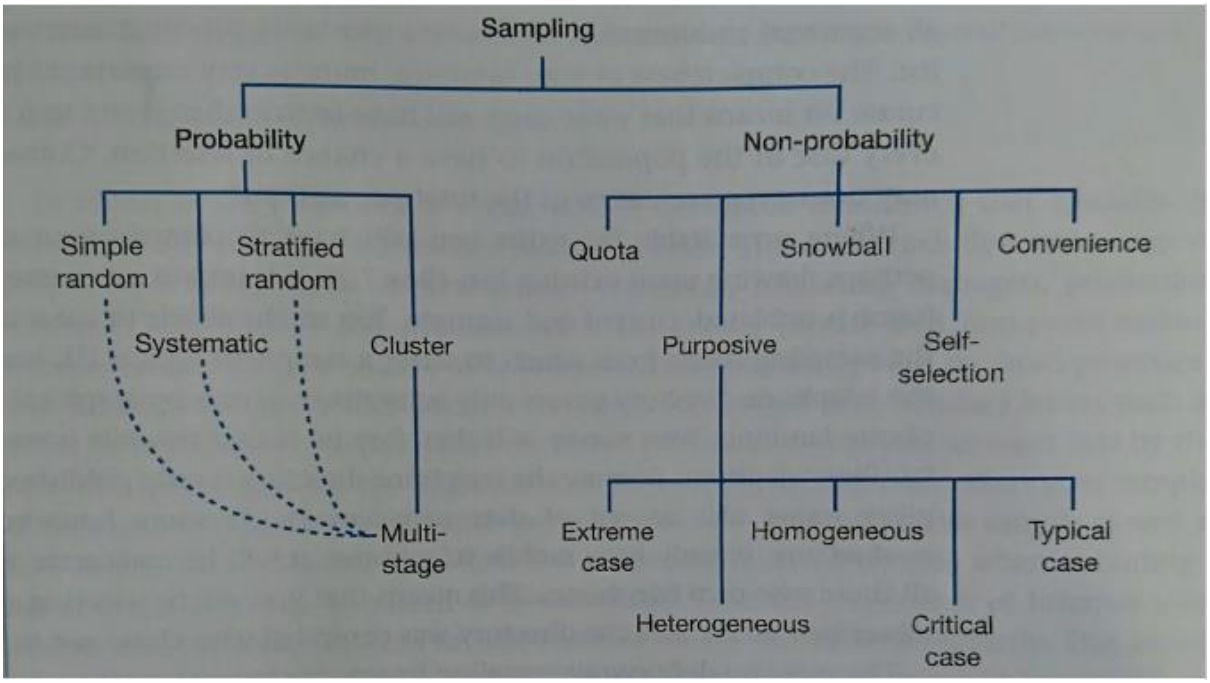
- Budgetary limitations that prohibit studying the whole populace;
- Time restraints that do not accommodate studying the whole populace, and

- The fact that the outcomes for the collected data might be needed quickly (Saunders *et al*. 2007: 206).

Samples are selected if it would be unfeasible to gather data from the whole populace. This was equally important to this study because questionnaires, and not interviews, were used. It is imperative to acknowledge that this investigation had to get authorization to gather data from the specimen in the applicable organisation/institution. (Saunders *et al*., 2007: 206, Datta, 2018: 1). Going back to specimen, it can be described as a collection of a comparatively lesser quantity of persons chosen from a populace for investigative purposes (Alvi, 2016: 1 1). Secondly, the procedure through which a specimen is selected from a populace is called sampling. To access the population and sample of this study, and to use CUT data in this study, this study followed the CUT's protocols. Another benefit of choosing a specimen is that it does not waste time, an important consideration considering the constricted target dates. The arrangement of data gathering was more controllable as less individuals were taking part than anticipated. Having less data to transcribe, the outcomes will be obtainable much earlier than anticipated. For budgetary motives, this process has occasionally been assumed for conducting the function of assigning codes to open questions after the data have been gathered (Saunders *et al*. 2007: 206).

Many researchers have argued that employing the selection of specimen enables one to achieve greater general precision than a census. The lesser quantity of instances, which are needed for data collection suggests that additional time can be dedicated crafting and testing the ways of gathering these data. Gathering data from less instances also suggests that more detailed data can be collected. Additionally, if individuals are working to gather the information from a census, better qualified personnel could be required. More time can thus be devoted to attempting to get information from the more problematic instances from the chosen specimen. Once information has been gathered through sampling, proportionately more time can be allocated to examination and review of the data for precision before moving to scrutiny of that data (Saunders *et al*., 2007: 207).

Coming to specimen procedures, these can be grouped into the following categories: probability/likelihood/representative sampling, and non- probability/not likely/judgemental sampling (Saunders *et al*., 2007: 207). With likelihood specimen, the chance, or likelihood, for respective member of the populace is recognized and respective members of the populace has an equivalent possibility of being chosen. This implies that it is probable to respond to investigative questions and to realize purposes that necessitate a study to approximate the statistical features of the populace from the specimen. As a result, likelihood specimen selection is frequently connected with survey enquiry and experimental research approaches. It is for this reason that likelihood sampling was used in this study. For non- probability/not likely/judgemental samples, the likelihood of individual members of the population being chosen from the entire populace is unknown and it is thus improbable to respond to investigative questions or to attend to the purposes that require a study to make numerical presumptions regarding the features of the entire populace. It should, however, be noted that is conceivable to infer from non-probability/not likely/judgemental samples regarding the populace, nevertheless not on numerical stances. For this motive, non- probability/not likely/judgemental sampling (irrespective quota/portion sampling) is more commonly employed when assuming a case study approach (Saunders *et al*., 2007: 207-208) Datta: (2018, 1-d) also reported on the various sampling techniques.



Picture 3.3: Specimen section approaches Sampling techniques (Saunders *et al*., 2007: 207).

It was mentioned earlier that the survey strategy, which falls within the paradigm of probability sampling, was employed in this study. Probability/likelihood/representative sampling is most usually related with approaches based on investigative- research where it is required of the scholar to make suppositions from the selected specimen regarding a populace to respond question(s) emanating from his research or to attain his/her aims. The procedure of probability/likelihood/representative sampling can be separated into four steps:

- Categorize an appropriate structure for the selection of specimen grounded on the question(s) emanating from the research or aims
- Adopt an appropriate range of the specimen.
- Choose the most suitable specimen-selecting procedure and chose the specimen.
- Verify that the specimen is illustrative of the populace (Saunders *et al*. 2007: 207-208, Datta, 2018: 1).

The above four stages of probability sampling were observed in this study (Saunders *et al*, 2007: 207-208)

- Identify a suitable sampling from the Somatology and HRM FTEs. This point was also raised by Datta (2018: 1)
- Deciding on the suitable size from the Somatology and HRM FTEs
- Selecting probability/likelihood/representative sampling as the most suitable specimen-selecting procedure and
- Checking that the specimen from the Somatology and HRM FTEs is illustrative of the populace of this study (Saunders *et al*, 2007: 207-208)

The next stage was to identify an appropriate structure of the specimen/sampling frame and its inferences for the quality of the generalization to be made. It is worth noting that the more the specimen is demonstrative of the populace, the greater is the precision of the implications and the greater are the outcomes' probability of being generalized to the entire populace. A specimen is regarded as illustrative when the features of the designated members of the population are identical to those of the whole intended populace (Alvi, 2016: 11). The structure of the specimen for any probability/likelihood/representative sample is a comprehensive register of all the instances in the populace from which the specimen was collected. If, for example, in reference to this study, the research question or aimed is related to the FTE's in Somatology and HRM, the structure of the specimen was the comprehensive register of FTE's in Somatology and HRM. The completeness of the sampling frame is very important. An inadequate or erroneous register indicates that some instances might have been omitted and so it would not be possible for all the instances in the populace to have the possibility of being selected. Subsequently, the specimen may not be illustrative of the entire populace (Saunders *et al*. 2007: 208). Here, Elder (2009: 16-17) cautions that sampling accuracy is not only defined by the scope of the sample but also, by its layout, i.e. its efficacy.

Where no appropriate registers are available, a study will be compelled to assemble its own structure of the specimen, possibly utilizing the available registers. It is imperative to guarantee that the structure of the specimen is unbiased, current and accurate. The way this study defined its structure of the specimen also had inferences concerning the degree to which the results from the specimen could be generalised. Within probability/likelihood/representative sampling, by delimiting the structure of the specimen, this study was also defining the population about which to the results would be generalised (Saunders *et al*., 2007: 208).

Regarding scope of the specimen, Saunders *et al* (2007: 210) is noted as saying that the quality of the generalization to be made regarding the populaces from the data gathered by means of any probability/likelihood/representative sampling are grounded on numerical possibility. The greater the scope of one's specimen, the lesser the probability of a fault in the quality of the generalization to be made to the populace. The choice of the sample volume must integrate several factors, including pragmatic considerations in managing the survey (i.e. accessibility of skilled personnel, deadlines for accomplishment, computing amenities), the desired accuracy of the estimations and survey costs.

Probability samples is the most accurate of the sample selection methods (Elder: 2009: 5). Probability/likelihood/representative sampling, Saunders *et al* (2007: 210) is consequently a conciliation between the accurateness of one's discoveries and the quantity of the period and cash devoted to gathering, verifying and breaking down of data for analysis. For this study, the selection of the scope of the specimen inside this concession was led by:

- The assurance this study desired in the quality its data: meaning the extent of the conviction that the features of the data gathered will characterize the features of the entire populace;
- The room of fault that can be endured: meaning the correctness sought for any estimations made from the specimen;
- The categories of analysing the data which is to be commenced, predominantly the number of groupings into which this study desires to divide its information, as many arithmetical procedures have the least limit of data instances for respective cell, and to a smaller degree:
- The scope of the entire populace from which this specimen would be collected (Saunders *et al.* 2007: 210).

Given these competing influences when one is conducting sampling, it is not astounding that the ultimate scope of the specimen is virtually constantly a matter of verdict as well as of calculating (Saunders *et al*., 2007: 210). For countless investigative questions and aims, a study needs to commence specific numerical analyses which will establish the limit of the scope of the specimen for specific groupings. Here it is imperative to take into account that

- Implications of the normal distribution for the scope of the specimen need to be considered,
- To ensure untrue outcomes do not transpire, the data examined must be ordinarily dispersed, and
- The greater the complete the scope of the specimen, the more at close range its dispersal will be to the typical dispersal and thus the more vigorous it will be (this association, known as the core restriction proposition on (central limit theorem), happens even if the populace from which the specimen is gathered is not typically dispersed) (Saunders *et al*. 2007: 210).

Glasow (2005: 2) offers the following determinants of the scope of the specimen:

- Anticipated degree of accuracy
- Statistical power necessary
- Ability of the scholar to gain access to the study subjects
- Degree to which the populace can be stratified
- Selection of the appropriate units of analysis

It is possible that, if one is commencing numerical investigation on his/her specimen, he/she will be making deductions from these examinations of data regarding the populace from which that specimen was drawn. This procedure of tabulating inferences about a populace on the foundation of information depicting the specimen is known as numerical deduction (statistical inference) and affords a study the opportunity to analyse how plausible the outcomes are, considering the scope of the specimen, and if these could have been arrived at by coincidence or not. Moreover, it is worth recollecting that, on condition that they are not prejudiced, specimen of greater complete scope is more probable to be illustrative of the populace from which they are collected than lesser specimen and, specifically, the mean (average) calculated for the specimen is more probable to be equivalent to the mean for the populace. This is called the rule of substantial numerals (law of large numbers) (Saunders *et al*., 2007: 211). Statistical inferences for this research were determined after data analysis was done by a qualified statistician. Scholars typically work to a 95 percent level of assurance. This implies that if specimen of a study was drawn 100 times, at the minimum, 95% of this specimen would be assured of representing the features of the populace. The allowance of flaws (margin of error) defines the accuracy of one's approximations of the populace (Saunders *et al*., 2007: 211). Furthermore, Elder (2009: 3) states that the scholar must be able to generalize inferences, within known and appropriate margins of error, from the sample to the broader populace. These will be discussed in the next chapter.

The most important aspect to be kept in mind about probability sampling is that it epitomizes the populace. An ideal illustrative specimen is one that precisely embodies the populace from which it is drawn (Saunders *et al*. 2007: 212). This statement is supported by Elder (2009: 3) in that the sample must be representative of the whole populace. That is why it is crucial to attain as great a level of participation as probable to guarantee that the specimen is illustrative. In actual fact, one is probable to have absence of a reply, as was the case in this study. The target participants who do not respond are dissimilar from the entire populace since they have declined to participate in the investigation for whatsoever motive. It is thus worth noting that one's participants will not be illustrative of the entire populace, and the information gathered has the potential not to be prejudiced. Additionally, any cases of absence of a reply will where the need arises, require for additional participants being identified to achieve the desired scope of the specimen, thus growing the expense of for the gathering of data. It is consequently imperative to categorize the negations, to reply to both specific questions and whole questionnaires so that prejudice is monitored. Nonresponse is due to four interconnected complications (Saunders *et al*. 2007: 212).

- rebuttal to reply;
- disqualification to reply;
- incapability to trace the participants; and
- respondent found but not in a position to make an interaction possible (Saunders *et al*. 2007: 213). Glasow (2005: 1) also reported on non-response by the participants in research,

The majority of the general motives for refusal to respond is that the participant disavows to respond to entirely to the questions asked, or to be part of the investigation, but does not provide a motive, as was the case with some of the intended respondents of this study. Such refusal to participate in an investigation can be lessened by taking full consideration of the procedures employed to gather data. On the other hand, some of the designated participants may not satisfy the demands of the investigation and will thus be disqualified to participate. Inability to locate and the inability to make contact possible generate additional difficulties; the fact that these participants cannot be contacted signifies they will not be delineated in the information that was gathered (Saunders *et al*. 2007: 213). The desire for non-respondents not to be part of this study was respected. The non-participation of some FTEs was noted by this study as non-respondents simply did not turn up as per agreed date, time and venue. This study did not pursue the reasons for no-participation. Saunders *et al* (2007: 213) states that as a component of the investigative account, this study will be required to contain the scope of the reply and the active response rate. These too will be discussed in the next chapter.

Choosing the most suitable procedure for selecting specimen and paradigm of the specimen is the next step. To this end (Saunders *et al*., 2007: 215) is of an opinion that, after selecting an appropriate structure of the specimen and determining the definite scope of the specimen that is needed, this study needed to choose the most suitable sampling procedure to attain an illustrative specimen. Five foremost sampling procedures are stated, specifically a straightforward/simple, arbitrary/random, methodical/systematic, graded/stratified, band/cluster; and multistep-multistage. Reference will be made to simple random sampling only because it was intended to be used in this study. The selection of a sampling procedure rests on the investigative question(s) and purposes. Later, the necessity for, e.g., eye-to-eye connection with participants, the environmental zone over which the populace is distributed, and the kind of the structure of the specimen will further influence the choice of the sampling technique (Saunders *et al*. et 2007: 214). The structure of the specimen, the scope of the specimen required, whether auxiliary workforce is to be required, the usability with which the chosen procedure may be elucidated will also influence a study's conclusion.

Straightforward arbitrary specimen section includes choosing the specimen arbitrarily from the structure of the specimen by employing either accidental number tables or a computer. To do this, this study:

- Numbered each of the instances in the structure of the specimen with an exclusive number. The first instance was numbered 0, the second 1 and so forth.
- Instances were designated by use of haphazard numbers until the definite scope of the specimen was attained (Saunders *et al*., 2007: 215-216).

A computer program, i.e. an Excel spreadsheet was used to generate random numbers. However, this study had to guarantee that the numbers produced were within the scope and a repeat was ignored and replaced. Random numbers allowed this study to choose a specimen without prejudice. The specimen chosen can, consequently, be said to be illustrative of the entire populace. This is as articulated by Saunders *et al* (2007: 217).

Simple random sampling is employed to the full benefit when a scholar can accurately and straightforwardly access the structure of the specimen that has registered the whole populace, preferably stored on a computer (Saunders *et al*. 2007: 218). This is true for this study in relation to the FTE's in HRM and Somatology who were the population of this research.
In straightforward/simple sampling,

- Respective and individual component of the populace has an equivalent probability of being chosen in the specimen.
- Each component should be jointly special i.e. capability to differentiate from one another and does not have any overlying features.
- The populace must be standardized i.e. each component comprises of a similar type of features that conform to the defined principles of the intended populace (Alvi, 2016: 16)

Though only random sampling is relevant to this study, they are various types of sampling (Sharma, 2017: 750-752).

3.7 DATA COLLECTION

Data gathering refers to the different methods, which are used to collect data from various sources (Walliman & Baiche, 2001: 226). Thus, the categories of data gathering, and data analysis, were kept in mind when conducting this study. Data collection and data analysis can, however, depending on the particular aims of a particular study, be closely interconnected (Walliman & Baiche, 2001: 226).

A vital element of a research project is to know which methods of data gathering, and procedures of breaking down the data for interpretation, which was most suitable for this study. The first part would be a forthright summary of how to collect data from different sources using different methods, and the second would be an explanation of techniques of analysis, both quantitative and qualitative. However, it was apparent that both of the activities of data gathering and breakdown of data for interpretation tend to be inseparably bound up with the research strategies — historical, survey, case study etc. — and can thus cannot be simply discussed without some reference to each other. It also becomes palpable that there are often sturdy links between the kind of information collected and the kind of breaking down of the data for interpretation suitable for them. Even the clear distinction between data gathering and breakdown of data for interpretation might become challenging, as in some cases data collection, collation and analysis go hand in glove, thus further producing valuable data (Walliman & Baiche, 2001: 226). For this study, the books were borrowed from library and research articles were downloaded from the internet. Additionally, data was gathered using a questionnaire that had both open-ended and closed-ended enquiry forms. This study decided to use questionnaires because they are mostly used in the survey method (Saunders *et al*., 2007: 354).

3.7.1 Questionnaires/Enquiry forms

Enquiry forms are mostly used in the survey method because they offer an effective way of gathering replies from bulky samples preceding breaking down of the data for numerical interpretation since respective individuals are requested to answer the similar variety of matters asked. It is imperative to bear in mind that the questionnaire should gather the exact information that is required to respond to the investigative questions and objectives. Secondly, questionnaires are excellent if they are employed with uniform enquiries that a study is assured will be construed in the identical manner by all participants (Saunders *et al*., 2007: 355-356).

The structure of the enquiry form will influence the ratio respondents, the consistency and the legitimacy of the data gathered. The above might be optimized by:

- Prudently constructing all separate enquiries.
- Clearly laying out the questions form
- Articulate clarification of the purpose of the enquiry form.
- Experimental run of the enquiry form
- Cautiously planned and effected management of the enquiry form should be outlined (Saunders *et al*. 2007., 356).

Furthermore, the following steps were followed when designing the questionnaire used in this study:

- As stated elsewhere in this chapter, the investigative enquiries and investigative aims/intentions – what this study wishes to determine - guided the formulation of questions:
  - ❖ An unambiguous, brief preparation of the investigative enquiries, i.e. what this study wished to establish and why, was provided.
  - ❖ Explicit and clear objectives of the study were stated.
- The populace that was the focus of this study was defined– who this study wished to target
- Clear, succinct and unequivocal construction of who the populace that was the focus of this study was, i.e. who the study was geared towards. Arranging the enquiries:
  - ❖ Enquiries were arranged in rational manner e.g. contextual enquiries in the matching segment; enquiries based on the views of respondents in an alternative segment, enquiries in relation to the similar theme in a different segment, and so forth.
  - ❖ Question were asked in a nonthreatening manner, but they were designed to be interesting to the respondent, and these were asked first (Questionnaire design: [n.d.]: 3-4).

The enquiry forms were employed in this research because they typically have a greater degree of reply than those that are handled by the respondents on their own. The Somatology and HRM lecturers assisted in the distribution of the enquiry forms amongst their students. The researcher then collected these once the exercise was completed. Moreover, the scope of the specimen of this research, and the manner in which the specimen was chosen, gave this study the confidence about the data collected and the degree to which the outcomes of this research can be generalized (Saunders *et al*., 2007: 359). The choice of questionnaire for this study was influenced by the factors below, which are related to the investigative enquiries and purposes of this study:

- The characteristics of the respondents from which information was gathered.
- The significance of getting hold of specific individuals as participants.
- The significance of the responses of the respondents not being soiled or inaccurate.
- The scope of the specimen needed for breaking down of the collected data, which considered the probable proportion of those who responded.
- The categories of questions this study desired to ask to gather relevant information.
- The number of enquiries this study had to ask to gather information.

It is imperative to remember that the above aspects will not relate similarly to the selection of the enquiry form, and my not apply at all for some investigative enquiries and purposes (Saunders *et al*., 2007: 357).

The selection of the enquiry form will be influenced by the subsequent factors:

- Are questionnaires to be distributed and collected over a geographically-dispersed area?
- The financial implications of data collection, e.g., the cost of reproducing the questionnaire.
- The ease of automating data entry, e.g., secretarial backing and capturing the information for breakdown by computer (Saunders *et al*., 2007: 359).

Moreover, this study had to be specific in relation to which associations were probable to happen amongst the variables. These are to be tested through statistical analysis:

- Dependent (subordinate) variable, i.e., it varies in reaction to fluctuations in others (for this study, the causes of attrition from various literary sources)
- An independent (autonomous) variable: it creates fluctuations in independent variables (for this study, attrition)
- An extraneous (unrelated) variable: it may also be the source of fluctuations in the dependent (subordinate) parameters, thus offering an alternate description to the autonomous parameter or parameters (the variables in this study being the students' home environment, the university environment and students not being able to register for a programme which was their first choice of study) (Saunders *et al*., 2007: 361).

Here, it becomes prudent to distinguish amongst the three information parameters that can be gathered by employing enquiry forms:

- View: chronicles impressions of participants concerning things or what they their perceptions or convictions on what is a matter of fact or what is not.
- Conducts: chronicles the occupation of participants.
- Qualities: chronicles feature of the participants (Saunders *et al*., 2007: 362).

Equally important is the validity of the questionnaires:

- Inner validity (legitimacy) denotes the capacity of the enquiry forms to discover what it was envisioned to discover.
- Secondly, substance (content) legitimacy denotes to the extent to which the dimension enquiries in the enquiry forms provide satisfactory attention of the research enquiries.
- Paradigm-connected legitimacy, also known as predictive validity, is aimed at the capability of the enquiries to come up with exact estimates.
- Structural legitimacy denotes to the degree to which the dimension queries essentially gage the occurrence of those criterions that this study envisioned them to determine (Saunders *et al*., 2007: 366-367).

There was always a possibility that the participants may understand an enquiry in the enquiry form in a particular manner, while this study intended otherwise. This is where the reliability (consistency) of the questionnaires comes in. Hence, consistency is focused on the permeance of the enquiry form, and in particular, if or not it will produce consistent findings at various periods and subjected varied circumstances, for example, with dissimilar specimen. The common procedures to measuring consistency are:

- Test re-test: approximations of consistency: these are attained by associating the information gathered with the similar enquiry form obtained through almost-identical circumstances greatest extent conceivable.
- Inner validity: includes associating the replies to respective enquiry in the enquiry form with additional enquiries in the enquiry form. It consequently means the reliability of replies throughout either all the enquiries or a subcategory of the enquiries from the enquiry form.
- Alternate form: offers some degrees of consistency within the enquiry form by associating replies with the alternate kinds of the similar enquiry or group of enquiries. Where enquiries are encompassed for this rationale, typically in lengthier enquiry forms, they are regularly known as verification enquiries (Saunders *et al*., 2007: 367-368).
- Criterion validity: indicates the efficacy of questionnaire in forecasting the conclusions of what it evaluates.
- Face validity: this is an assessment of whether the element of a questionnaire seems to be applicable, i.e., at face value are they getting the reaction in way the scholar aims to assess.
- Test-retest reliability: this is used to evaluate the reliability of response from one time to another (Roopa and Rani, 2012: 276).

When inventing separate enquiries, this study had to:

- Assume enquiries utilised in the questionnaire.
- Acclimatize enquiries applied in the questionnaire.
- Establish particular enquiries (Saunders et al., 2007: 368)

Adopting or adapting questions in the questionnaire was necessary if this study wished to duplicate or to equate the conclusions with those of other studies conducted earlier. This provides the possibility to allow for consistency to be measured. It is also additionally effective than constructing new specific enquiries when replicating a study, on condition that study can nevertheless gather the information needed to respond to the investigative enquiries and achieve the set purposes. For this study, it was imperative to verify if the questions in the questionnaire were under copyright. However, the questions used in this study were not under copyright. Had they been under copyright, this study would have obtained the author's permission to use them (Saunders *et al*., 2007: 368).

The enquiry form utilized in this research comprised of a mixture of open questions and closed questions. Open questions/open-ended questions allowed participants to offer their individual responses. Closed questions/closed-ended enquiries offered several alternate responses from which the respondents were required to select. This study chose from the six types provided by Saunders *et al* (2007: 368) viz:

- List: the respondent was provided with a listing of points, some of which may be chosen.
- Grouping: a unique reply could be chosen from a provided group of classifications.
- Ranking: a ranking stratagem (scale in this study) was employed to note the replies.
- Quantity: the reply is a figure which supplied the quantity
- Mesh: where replies to two or more enquiries were noted by the use of the similar template (Saunders *et al*., 2007: 368).

It was essential to keep in mind that any pollution of the participants' responses would decrease the consistency of the information that was gathered. It was crucial to bear in mind the possibility that if respondents had inadequate knowledge and involvement, they might purposely conjure up the response/s, an inclination called unacquainted reply (Saunders *et al*., 2007: 359).

Benefits of utilizing questionnaires are:

- They are more economical to manage than private (face-to-face) consultations.
- They are comparatively not cumbersome to manage and breakdown for analysis.
- Majority of the persons are acquainted with the notion of an enquiry form.
- They decrease the likelihood of researcher being prejudiced.
- They are professed to be invasive to a lesser extent than phone or eye-to-eye investigations and that is why participants will more willingly reply honestly to delicate enquiries.
- They are practical since participants can conclude their responses at a period and location that is practical for them (Questionnaire design, [n.d.]: 2).

3.7.2 Documentary analysis/Literature review

The major reason documentary analysis was conducted was to enable this study to produce and improve its investigative philosophies and secondly, often denoted to as analytical documentary analysis, to empower this study to validate the cognizance of its present position of understanding in the theme of attrition, confines of this understanding, and ways in which this investigative study is appropriate for the broader background of attrition (Saunders *et al*., 2007: 54-55). Jankowicz (2005: 161) mentioned that the work that one does is by no means conducted in a void, but adds on to the philosophies of scholars who have learnt about the area beforehand in a particular field of study. This presupposes one to pronounce what has been circulated, and to assemble this material in an applicable fashion. The latter statement is seconded by Oliver (2012: 5-6) when he mentions that the overall objective of literature review is to understand how one's theme under investigation is linked to other associated parts, and secondly, to assist those who peruse literature to appreciate how one's research is appropriate the wider framework. Additionally, as part of the literature review, this study evaluated, examined and reviewed what was written and researched in the broad area of attrition. Establishing the scope of existing research showed how this study fitted into the previous succession of studies. Literature review enabled this study to determine how contemporary investigations and exploration were like construction chunks which are placed against the philosophies constructed by others beforehand. Review of literature consequently helped this study to understand and acknowledge the classification and expansion of education in the field of attrition. As the previous research on a subject was investigated, this study came to a position to recognize fields which have not hitherto been investigated and researched. Tranfield, Denyer and Smart (2003: 208) drive an important point home about the importance of literature review when they advise that a researcher's findings will inescapably be assessed in connection with other scholars' investigations and their discoveries, hence one needs to both chart and appraise the current and prevailing academic authority, ascertaining what investigative studies have been circulated in a selected subject. It was thus imperative for this study to continue searching throughout this research project's life so as to keep up to date with the applicable and noteworthy investigation on the theme of attrition (Saunders *et al*., 2007: 56 & 57).

As reported by Saunders *et al* (2007: 57), conducting an appraisal and analytical documentary analysis will provide the basis on which one's investigation is constructed with the foremost rationale of being able to assist investigative research to advance a respectable appreciation of and awareness into the pertinent preceding investigation and the tendencies that have developed. Literature reading depended on the approach that was chosen by this study. Since the deductive approach was chosen for this study, literature review helped this study to identify philosophies and notions that would be employed to assess the findings emanating from the information collected.

Saunders *et al* (2007: 57-58) list the purpose of documentary analysis by referring to the efforts of Gall *et al* (2002). documentary analysis for this study was thus conducted to:

- Help this study to further refine its research questions and objectives
- Emphasize investigative probabilities that have were incidentally unnoticed in investigations conducted earlier
- Determine the unambiguous endorsements to conduct additional investigation

- Assist this study to circumvent merely reiterating what has been completed by other researchers previously
- Read the contemporary sentiments in the papers, specialized periodicals.
- Determine and offer an understanding into the investigative methods, approaches and procedures that might be found to be appropriate to this study's questions and objectives.

It is indispensable that literature review should demonstrate and elucidate the associations amongst the printed investigative discoveries and acknowledge the works in which they were described. This will enable the audience to appreciate one's ideas in comparison to the context of preceding available literature in the field being studied. The subsequent points must be considered when in view of the content of literature review (Saunders *et al.,* 2007: 58):

- Embrace the significant theoretical philosophies within the preferred field of investigation
- Establish that this study's familiarity with the selected filed is current
- Thorough unambiguous contextualization to permit the readers this research document to discover the innovative journals that were referred to.

The literature sources referred to in this study are first-hand (primary literature, i.e., the author/s own account), description (secondary literature, i.e., discussing information initially presented by a different source) (Research process) and a combination of primary and secondary sources (tertiary literature) (How to evaluate information sources). First-hand literature (otherwise known as grey literature) are the initial incidences of a section of literature. They embrace printed resources such as government publications like White Paper. Literature discussing information initially presented by a different source include, for instance, records and journals. These are intended for a broader reader and are simpler to find. Literature known as a combination of primary and secondary sources, also known as locating apparatuses, are intended to either assist to find first-hand and literature discussing information initially presented by a different source or to present a theme. They thus embrace catalogues (indexes), précises (abstracts), encyclopaedic sources and bibliographic information (Saunders *et al*., 2007: 64-65).

The importance of literature review is further emphasised by Onwuegbuzi and Frels (2016: 3) when they point out that science results in an accumulation of knowledge over time. It thus up to us to always endeavour to establish what is known about a topic of interest and then use what we have found out as a point of departure. Indeed, failure to do so could lead us to replicate and duplicate what has already been researched. Moreover, lack of awareness of existing knowledge in the literature might lead us to put into practice that which has been previously found to be ineffective.

3.8 DATA ANALYSIS

Descriptive figures were used in this research. To this end, this research relied on the work of Maree, Creswell, Ebersohn, Ferreira, Ellof, Ferreira, Ivankova, Jansen, Nieuwenhuis, Pietersen, Plano, Clark and van der Westhuizen (2011: 183-189) because it provided the precise explanation of how descriptive statistics were employed in this study.

Subsequent to the gathering of evidence and capturing thereof on a computer as statistics, known data or raw data, the procedure of breaking down the collected information that it generated numeric data typically began with descriptive figures. The expression descriptive figures are a common noun for a collection of numerical procedures that were used to arrange and condense the data that was gathered for this study in a constructive manner. This served to improve the comprehension of the qualities and hallmarks of the information that was collected.
It is possible to divide descriptive statistics into two means of typifying or outlining the information that was collected. This can be done in terms of employing graphics and by presenting the data numerical. In addition, dissimilar kinds of information (i.e., numerical and qualitative) necessitate diverse methods of explaining their qualities.

On the laptop, the information was divided into parameters. Each question on the questionnaire was denoted by a parameter. For example, a question that asked for the respondent's gender was represented by the variable gender, this variable is of the nominal type since that is the scale on which it was measured. The processing of breaking down the collected information that it generated numeric data was conducted with numerical computer programs. For this study, this was done by a qualified statistician.

Three parts of descriptive statistics will be discussed, namely ways of describing qualitative or categorical data, ways of describing quantitative data, and the standardisation of scores.

3.8.1 Breaking down the collected information that it generated numeric data

An example of breaking down the collected information that it generated numeric data is the data generated by the question:

Table 3.1: Analysing qualitative data

Does the university library provide enough study material?	Yes
	No
	Don't know

(Maree *et al.,* 2011: 183)

The variable representing this question is "enough study material", and it contains the 1, 2 and 3 values and the raw data will look something like this (n=180):

Table 3.2: Analysing qualitative data

Respondent number	Safe place
1	1
2	2
3	2
.	.
.	.
180	5

(Maree *et al.,* 2011: 183)

This variable was summarised in a numerical way of by using a frequency (incidence) distribution. In such a spreading of the data, the diverse reply groupings of the parameter are offered concurrently with the frequency (number) of participants, and typically also the frequency is articulated as a proportion of the scope of the specimen, in respective groupings. For the variable "enough study material", the frequency distribution might be presented like this:

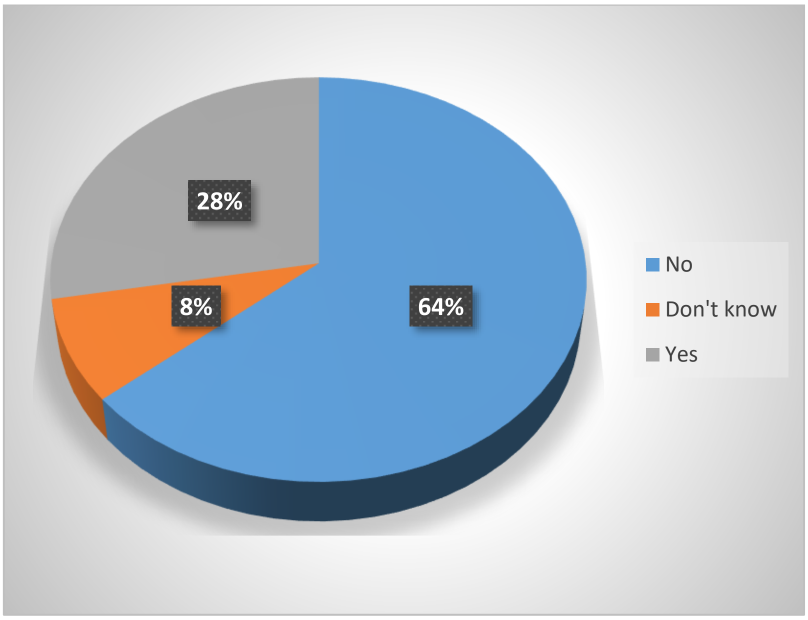
Table 3.3: Frequency distribution: safe place

Grouping	Incidence	Proportion
Yes	50	27.8
No	115	63.9
Don't know	15	8.3
Total	**180**	**100.0**

(Maree *et al.* 2011: 184)

The summary of the variable "enough study material", shows that there were 180 respondents of whom 50 (27.8%) agreed with the statement, the majority, who were 115 (63.9%), disagreed with the statement, and very few, only 15 (8.3%), did not know. A graphical way of summarising the variable enough study material by employing a pie chart is presented below. In chart like this , the various groupings are presented as individual sections of a circle.

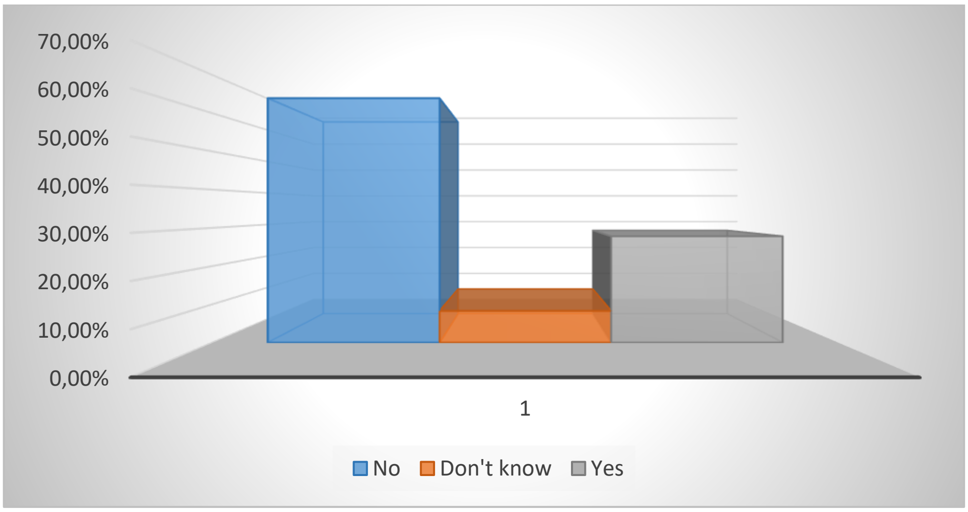
Graph 3.1: Pie chart: safe place



(Maree *et al.,* 2011: 184)

Another commonly used way of graphically summarising a qualitative parameter through a bar chart. In these graphs the various groupings can be presented as bars, as is the case below:

Graph 3.2: Bar chart: summarising a qualitative variable



(Maree *et al.,* 2011: 184)

The advantage of these graphs is that they make it for one to immediately see the most distinguished properties of the responses to a specific question, in this case, that most of the respondents said "no" to the question that was asked.

A two-way frequency table, also known a cross-tabulation is a very valuable tool of categorizing the respondents based on two qualitative variables concurrently. This is mainly useful to discover diverse response patterns of different subgroups. For example, the frequency distribution of a certain dichotomous variable may show that each of the two levels of the variable contains 50% of the respondents, but after cross-tabulating it with the gender of the respondent a very important property may emerge, namely that the males and females responded in the opposite manner to the question and overall, this difference is averaged out or annulled.

Considering, again, the qualitative variable "enough study material", and cross-tabulating it with another qualitative variable, for example "gender", a study might end up with the data displayed in Table 3.4:

Table 3.4: Two-way frequency table: "enough study material", by gender

	Gender		
Safe place	**Male**	**Female**	**Total**
Yes	35	15	50
No	43	72	115
Don't know	7	8	15
Total	**85**	**92**	**180**

(Maree *et al.,* 2011: 185)

This table has presented the frequency distributions of "enough study material", and "gender" disjointedly in the row and column that is named total. Inside the table there are six cells that have the number of respondents belonging to each of the six "safe place-gender" combinations. For example, of the 85 males, there were 35 who said "yes" to the question and 43 who said "no". This can now be compared to the 15 of the 95 females who said "yes" and 72 who said "no". Here, it becomes apparent that the females were much more likely to say "no" than the males, but the numbers cannot be compared directly since the figure of both sexes in the specimen is not the same. The numbers in the table will have to be expressed as percentages to compare the male and female responses more directly,

Three diverse proportions can be determined in a pivot table of two variables. These are column percentages, row percentages and whole proportions:

- Column proportions are the cell frequencies presented as a percentage of their respective column tally.
- Row proportions are the cell frequencies depicted as a percentage of their respective row total (Maree *et al*. 185-186).
- Total percentages are the frequencies in the cells articulated as a proportion of the scope of the specimen.

The total percentages are rarely useful for interpretation. It is more common to interpret the column or row percentages. In the cross-tabulation of "safe place' by "gender", the column percentages will be interpreted since that show how differently the males and females responded to the question. Table 3.5 shows the same cross-tabulation but added to it are the column percentages.

Table 3.5: Two-way frequency table with percentages: "enough study material", by "gender"

	Gender		
Safe place	**Male (column %)**	**Female (column %)**	**Total**
Yes	35 (41%)	15 (16%)	50
No	43 (51%)	70 (76%)	115
Can't tell	7 (8%)	8 (8%)	15
Total	**85 (100%)**	**92 (100%)**	**180**

(Maree *et al*. 2011: 186)

The differences between males and females are now evident. The 'yes" response was chosen by 41% of the males and by only 16% of females, while the "no" response was ticked by more females (76%) than males (51%) (Maree *et al*., 2011: 186)

3.8.2 Analysing numerical (quantitative data)

Summarising numerical variables is a lot more intricate than with qualitative variables as there are additional intrinsic characteristics to explain. Quantitative data entails of a register of numeric eigenvalues — each eigenvalue for respective participants — that are dispersed through a specific variety of eigenvalues. This dispersal of eigenvalues can be explained regarding its

- Position (location) or fundamental (central) leaning (tendency),
- Distribution (spread) or disparity (variation), and
- Size (shape) or arrangement (form) (Maree *et al*., 2011: 186).

3.8.2.1 Numeric methods to define the position of a spread

Mode, median and mean are the three renowned and extensively employed measures of explaining the position of a spread. To be effective, a measure of location should classify the greatest with the typical significance, specifically the single value that thoroughly defines the entire collection of values or put differently, the value around which additional values are spread (Maree *et al*., 186-187)

The mode (MO) is the significance that happens more often. Sometimes, however, mode does not precisely define the centre of the spread. This occurs when there is more than one value that occurs often, but the incidence of a single value is greater with a minor scope. In cases where there are two or more values with the same (highest) frequency, the distribution is called bimodal (two modes) or multimodal (more than two modes) (Maree *et al*., 2011: 187)

The median (average) (Me) is to be found in the centre value of a spread - it separates the spread into two equal parts (halves of 50% of the statistics is lesser than the average and 50% is greater). To the average, the numbers must be arranged from the minimum to the maximum value. If there is an even number of the values that are found, that is, *n* is equal, then the position of the median will be given by *(11+1)/2*. For example, n=95, the median is the 48^{th} (-96/2) value in the ordered data. If n is even, then the average is given by the median of the two centre (middle) values, that is, the values at positions n/2 and n/2+1. For example, if n=100, the median is the average of the 50th (=100/2) and 51st (-100/2+1) values in the ordered list.

The mean (average) $\tilde{x}$ is the predominantly and frequently used degree of position and is measured as the arithmetic mean of all the statistical values. The following formula is utilized to calculate the average:

$$\tilde{x} = \frac{\text{total of all the values}}{\text{the number of values}}$$

Below is an example where these three measures can be used to describe the central tendency of same data. Let us look at the following set of data consisting of the test scores (out of 50) of ten students which have already been arranged in ascending order:

25 27 30 30 33 35 37 39 45 48

The different measures of central tendency for these data are calculated below:

Mode

MO = 30 (from inspection of the data)

Median

Me = average of 5th and 6th values

= (33+35)/2

= 34

Mean

$\tilde{x}$ = <u>25 + 27 + 30 + … + 48</u>

= 10

The mean and median are almost the same and, looking at the data, it appears that they are enhanced portrayals of the central tendency of these statistics than the mode (Maree *et al*., 2011: 187).

3.8.2.2 Numerical ways to describe the spread of a distribution

The range (extent), the interquartile (middle 50%) range, the discrepancy (variance) and the predictable error (standard deviation) are the four measures of the spread of a spread that are frequently utilized. Essential evidence is discovered by the quantity of spread in a distribution. It articulates the degree to which the statistical values incline to collect near each other or tend to be broadly distributed.

The *range (R) (span)* of a distribution is just the variance between the greatest and lowermost values, thus:

R = greatest number - lowermost number

The *interquartile range (IQR*, i.e. the *middle 50%)* is the range of the central 50% of the statistics. To understand the calculation of this amount, the *quartiles* of a distribution are defined. Just as the median splits a distribution into two equal parts, the quartiles of a spread divide it into four equivalent portions. There are three quartiles, denoted by Q1, Q2 and Q3 and their property is displayed below (note that Q2= *median*)

Q1 Q2 Q3

<u>Ratio of 25% of data Ratio of 25% of data Ratio of 25% of data Ratio of 25% of data</u>

Having determined Q and Q, the interquartile range is then calculated as

IQR = - Q3 – Q1

The *variance* (S2) is an amount that enumerates the measure of the distribution of the statistical values round their average value. It is computed as the mean of the squared abnormalities (deviations) of all values from their average:

S2 = <u>quantity of squared abnormalities</u>
quantity of values — 1

$$\frac{\sum (x - \bar{x})^2}{n - 1}$$

(Note that it is not exactly the average since the denominator is *n*—l and not n.) The *standard deviation (s)* is the root mean square of the discrepancy (variance), that is:

S = $\sqrt{S^2}$

Let us have a a look at several of the statistics and count these measures of spread. For instance, let's say a for a specimen of 13 has the following data:

8; 11; 12; 12; 14; 14; 14; 15; 16; 16; 18; 19; 21

The different measures of spread for these data are calculated below:

Range

R = 21 - 8

= 13 (Maree *et al*., 2011: 188)

Interquartile range

IQR = 17 12

= 5

Variance

S^2 = [(18 – 14.6) ^{2} + (11 - 14.6) ^{2} +… (21 - 14.6) ^{2}] / (13-1)

= 12,27

Standard deviation

S = $\sqrt{12.27}$

= 3,50

Whereas the interpretation of the values produced by the range and interquartile range is forthright, this is not the case with the variance and standard deviation. As descriptive measures of spread, these two statistics will increase in value as the data becomes more spread out, and their value will decrease if the data is more clustered around a single point.

An important use of the variance and standard deviation is in comparing one distribution with another. For example, if a study shows that the income distributions in Municipality X and Municipality Y have the following properties:

Municipality X	**Municipality Y**
$\bar{x}$ = R12 345	$\bar{x}$ = R12 345

s = R1 234 s *s* = R6 543

Then, clearly, the personal incomes in Municipality Y are much more spread out around the mean value, which means that the population in Municipality Y is far more varied in terms of income than the population in Municipality X.

Another very important use of the discrepancy and standard deviation is in the area of statistical inference, due to their statistical properties. Finally, the standard deviation is utilized in an imperative approach termed standardisation (normalization), in which separate counts are normalised to enable the comparing of separate counts from various groupings (Maree *et al*., 2011: 189)

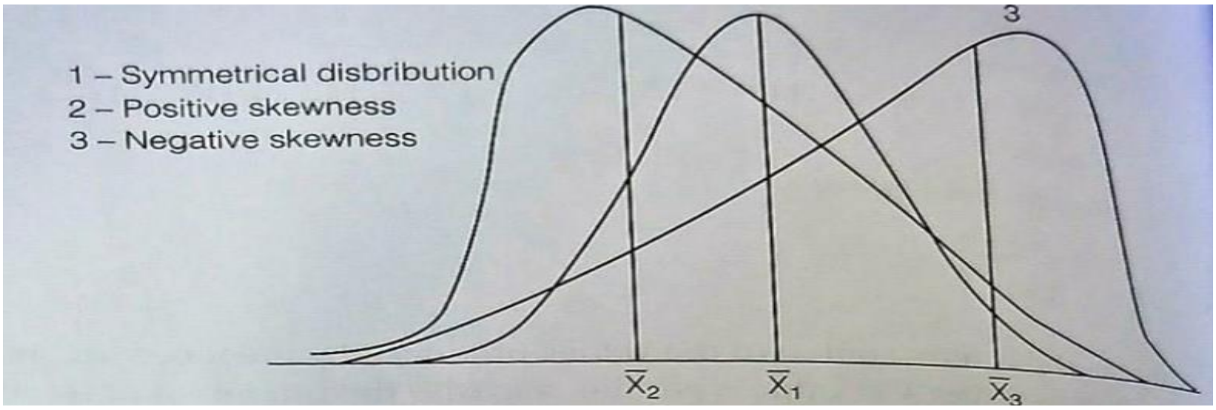
3.8.2.3 Numerical ways to describe the shape (form) of a distribution (spread)

The most effective manner to define the form of a spread is optically, i.e., by way of certain type of chart that *demonstrates* what the spread appears like. There are, nevertheless, two numeric procedures that define the form of a spread - they determine the extent of obliqueness (skewness) and kurtosis (flattening/flatness) of the spread.

The *obliqueness* of a spread is the mark that is utilized to define how far-flung the spread diverges from the correspondence/harmony/balance. If the statistics are mainly distributed out to the higher edge of the gage, essentially it has a lengthier end to the right, the spread is reported to be tilted to the right or *positively tilted*. If, nevertheless, the statistics are mostly distributed out to the left or side of the gage that is down, the spread is termed to be tilted to the left or *negatively tilted* (Maree *et al*., 2011: 189)

3.8.2.4 Numerical approaches to describe the shape of a distribution

Picture 3.4 shows three distributions: one is symmetrical, one is skewed and the other is negatively skewed



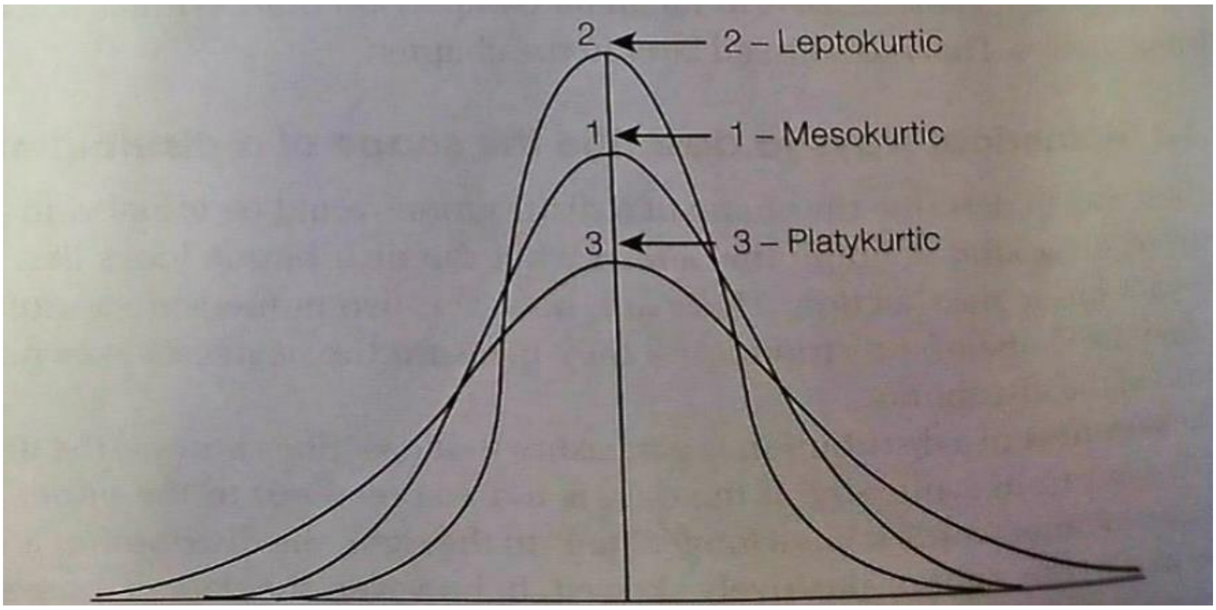
Picture 3.4: Illustration of skewness

For proportioned spreads, the worth of obliqueness measurement is zero, though the worth is absolute if the spreading is skewed positively and negative for negatively skewed spreads.

The kurtosis (flatness) of a spread is a measurement that defines the quantity of flatness or pawedness of a spread. This ration is immediately connected to the standard deviation of the spread. Picture 3.5 illustrates the three foremost arrangements of spreads, namely:

1. Kurtosis (flatness) that is mesokurtic , or standard
2. Kurtosis (flatness) that is unusually leptokurtic, or reaching a peak
3. Kurtosis (flatness) that is unusually platykurtic, or flat

Positive standards of the kurtosis (flatness) measurement specify that the spread is leptokurtic, negative standards specify platykurtic spreads and standards near or equivalent to zero specify standard kurtosis (flatness).



Picture 3.5: Illustration of Kurtosis (flatness) (Maree *et al.,* 2011: 190)

3.8.2.5 Graphical way of depicting information

The major benefit of sketchilly depicting information is that the foremost features of the spread can be directly be detected, for example, how symmetrical or skew spread is, kurtosis or having reached a peak, and the position of the spread. A couple of methods of depicting quantitative information sketchilly, are, for instance:

- Histogram
- Frequency polygon
- Boxer and whisker plot (Maree *et al*., 2011: 191)

Finally, breaking down of data for analysis is a procedure that pursues to decrease and make intelligence of massive quantities of data, frequently from diverse foundations, so that trajectories that clarify an investigative enquiry can be observed. It is a procedure where this study took the expressive data and offered a clarification or explanation. The data can be made up of interview transcriptions, forms, studies, but for this study it was the completed questionnaires. Because the breaking down of data for analysis depends on the scholars' prints, it is essential that breaking down of data for analysis is methodical and that scholar's account on his/her imprints in an organized and translucent manner. This is specifically significant bearing in mind the normal observation that qualitative investigation is not as dependable and wide-ranging as quantitative investigation. Two methods of analysing qualitative data are known. One method is to scrutinize the findings with a pre-defined outline, which mirrors the goals, purposes and comforts of the research. The additional method assumes an extra investigative standpoint, inspiring the researcher to take into account and cypher all the information, permitting for novel imprints to form the clarification in diverse and unforeseen routes. This called the topical system breakdown (6 Methods of data collection and analysis, n.d: 14)

3.9 PRINCIPLES/ETHICS

Principles/ethics, in the background of AN investigation, denotes the suitability of the scholar's conduct in connection to the entitlements of those who become part of his/her work, or are affected by it. Thus, research ethics relate to how the investigative theme is expressed and elucidated, how the research was designed, gaining admittance to the population, collecting the information, preparation and storing of that data, breaking down of data for analysis and finding in an ethical and accountable way to write up the findings. Moreover, the conduct of one's research should also be directed by his/her university's codes of conduct or moral rules (Saunders *et al*: 2007: 178-179). As advised by Saunders *et al* (2007: 179), this study was submitted to the CUT's Research Ethics Committee, which was made up of knowledgeable academics from a diversity of academic experiences. As mentioned earlier, institutional protocols were followed to access and use CUT data in this study.

The consideration of ethics in research is of great significance. It was, therefore, critical that this study understood the basics of ethical research and how this might affect this research project. This was especially pivotal since this study involved interaction with students who happen to be members of the general community of the CUT. (Polonsky & Waller, 2010: 53)

Saunders *et al* (2007: 181) offer a few of key ethical issues, which this study adhered to:

- Respecting the privacy of actual and possible and participants

- Making it clear to the participants that taking part in this study is a form of volunteering and that the intended subjects have the entitlement to withdraw from the taking part.
- Agreement of participants to be part of this study
- Maintaining the privacy of the information that was supplied by individuals or participants
- Assuring the subjects of their secrecy
- Reassuring participants that the way in which this study will collect data will not cause awkwardness, pressure, uneasiness, agony and injury
- Reassuring subjects that data analysis and reports of the results will not cause awkwardness, pressure, uneasiness, agony and injury This study will only be led by its objectives.

3.10 CONCLUSION

Chapter 3 looked at the research philosophy of this investigative enquiry. The investigative method and the research design were also looked at. Combining quantitative and qualitative techniques, the selection of samples, data gathering, breakdown of data for analysis and the ethics were also discussed. Chapter 4 will deliberate on the investigative findings, that is, data analysis.

CHAPTER 4: DATA PRESENTATION ANALYSIS AND INTEPRETATION

4.1 INTRODUCTION

The objective of this episode is to present the result of this study, which was conducted among the FTEs in HRM and Somatology, respectively, at the Central University of Technology (CUT), Free State, Bloemfontein. A questionnaire with both closed-ended and open-ended questions was employed to gather the required information. The findings of this research were analysed by a qualified statistician.

At this point, it is crucial for this study to point out that the findings of this research are statistically insignificant due to the inadequate scope of the specimen. This was an unfortunate and unforeseen situation whereby some of the HRM students did not desire to partake in this research.

Using of the word significant is unfortunate, as Wright and London (2010: 91) explain, because it does not have the same meaning as its English definition. However, this word is stuck. However, it does not mean that the size of the sample difference is of any practical significance, only that if there were no differences in the population, then getting a result like the one observed is unlikely. It is thus important to stress that finding something that is statistically significant does not mean that is either a big or an interesting effect (Wright & London, 2010: 121). As it happens, equally imperative to cite that correlation does not mean interconnection. While a larger correlation does suggest that there is probably some causal relationship that my connect the variables, it does not mean what this relationship is (Wright & London, 2010: 121).

Lomax and Hahs-Vaughn (2012: 139) raise a pivotal issue when they ask: are statistically significant findings always substantial? Alternatively, if an outcome is statistically significant, should we attach much importance out of such a finding in a realistic term? Realistic relevance is not wholly a numerical point. It is also an issue of the practical arguments that should be determined. Therefore, the significance of a slight difference is for the substantive area to determine. Steinberg (2008: 414) weighs in on statistical significance and explains that it does not imply practical importance. The result can be very low in practical value. To illustrate statistical significance and practical significance, reference is made to an example thereof by Lind, Marchal and Wathan (2012: 346): Suppose a new diet pill was developed and it was tested on 100 000 people. The conclusion was that the typical person taking the pill for 2 years lost 1 pound. Do you think that people would be interested in taking the pill to lose one pound? The results of using the pill were statistically significant but not practically significant. The same goes for this study.

4.2 DESCRIPTIVE STATISTICTS

Descriptive statistics were employed as it has been alluded to in chapter 3. Expressive figures are explained as procedures that let us to tabularize, abridge, and portray the information that was gathered in a shortened manner. Simply put, the objective of expressive figures is to permit us to converse on (or define) the gathering of information without looking at the whole assortment of the data that was collected (Wright & London, 2010: 6).

4.3 POPULATION SAMPLE CHARACTERISTICS

The population and sample of this study was drown from the FTEs in HRM and Somatology, respectively, at the CUT, Free State, Bloemfontein. A total of 65 (HRM = 65 and Somatology = 31) students participated in this study. The characteristics of the population were calculated, namely the gender (see 4.5.1), age, (see 4.5.2), home language, (see 4.5.3), citizenship (see 4.5.4), country of birth (4.5.5), province (see 4.5.6) and city (see 4.5.7).

4.4 INTERPRETATION OF THE FINDINGS

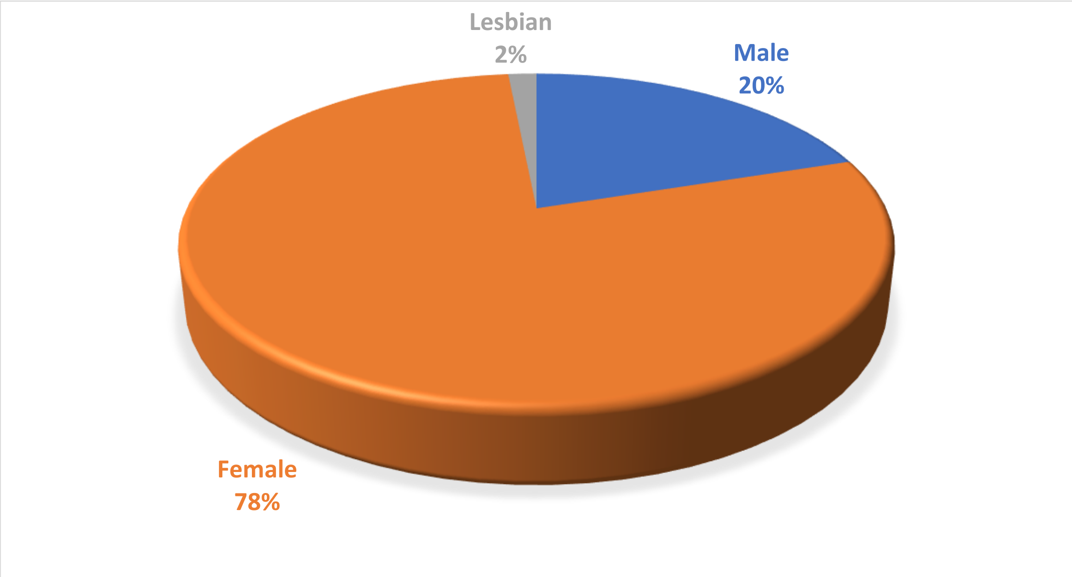
The findings are presented under Section A (which is biographical data) and Section B (which are questions pertaining to the four hypotheses). They are organised under the following headings and interpreted as such:

Graph 4.1: Respondents' gender
Graph 4.2: Respondents' age
Graph 4.3: Respondents' home-language
Graph 4.4: Respondents' citizenship
Graph 4.5: Respondents' country of birth
Graph 4.6: Employment status of your parents/guardians
Table 4.1: Do you have electricity at home?
Graph 4.7: Do you have an internet connection at home?
Graph 4.8: How do you travel to CUT?
Graph 4.9: Where did you do your matric?
Graph 4.10: Neighbourhood safety
Graph 4.11: Neighbourhood noise levels
Graph 4.12: How did you come to know about the CUT?
Table 4.2: First encounter with CUT staff
Table 4.3: Overall impression of the CUT so far

4.5 DISCUSSION OF THE FINDINGS

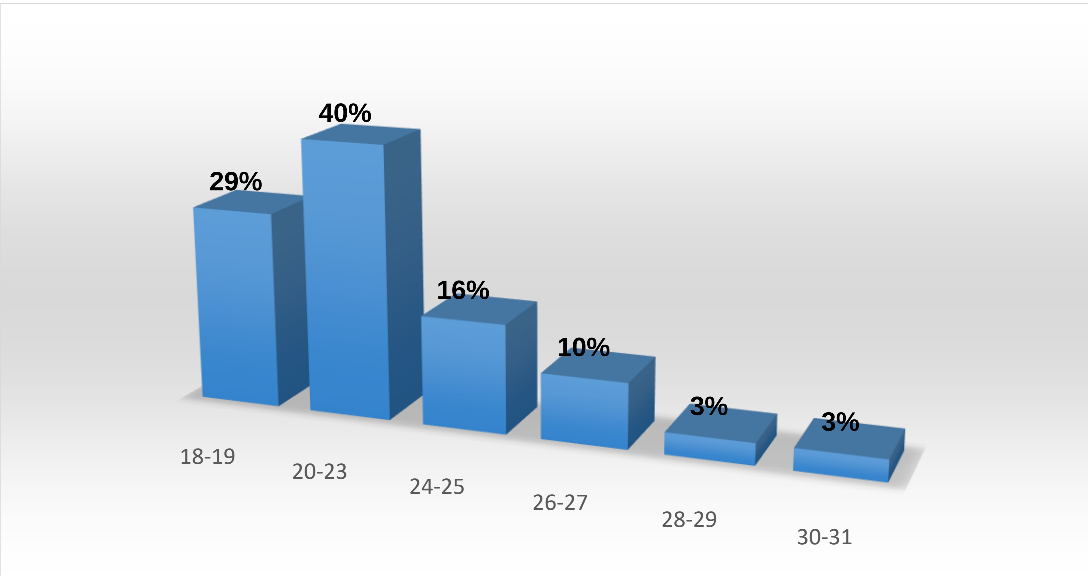
The demographic information of respondents is presented below

Graph 4.1: Respondents' gender



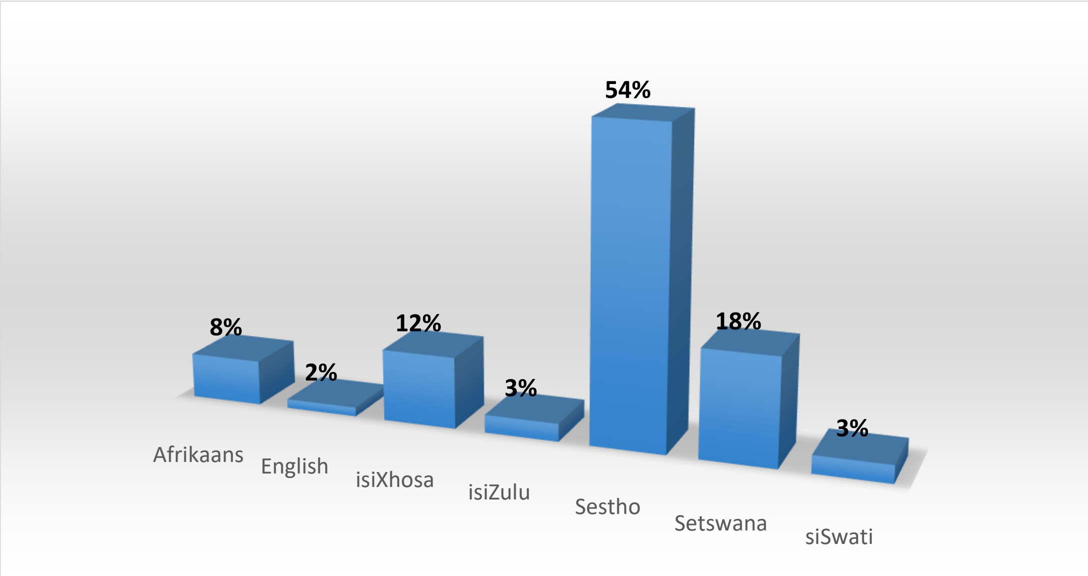
Gender presentation was good, with females, males and lesbians represented.

Graph 4.2: Respondents' age



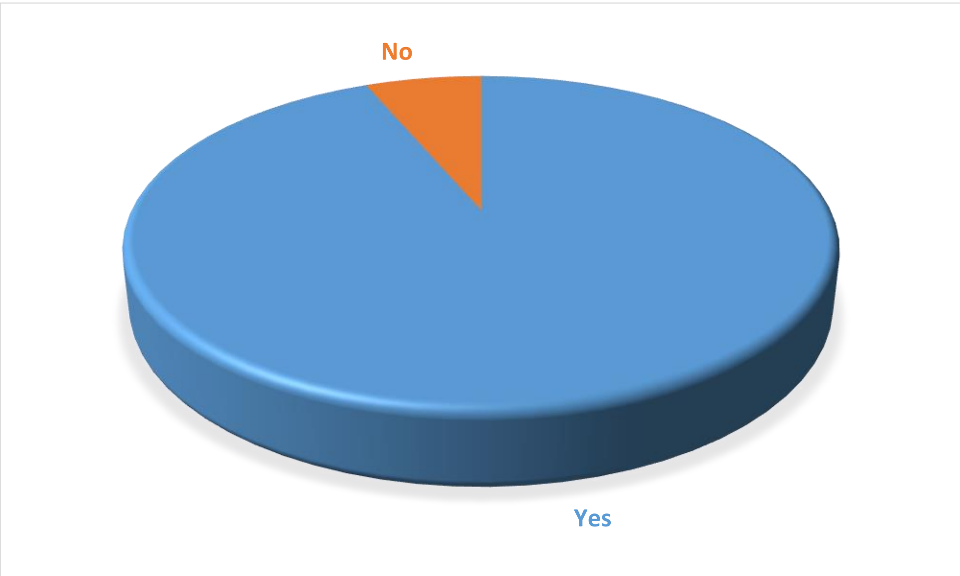
As graph 4.2 shows, the majority of the participants in this research were in the 20-23 years old rage of age. The other age groups, in order of biggest to smallest, were the 19-20, 24-25, 26-27, 28-29 and 30-31 years old age groups, respectively. Two respondents did not answer this question. The circumstance that most of the participants were in the 20-23, 24-25, 26-27, 28-29- and 30-31-years old age groups, respectively, is point of concern for this study since he is of the view that these students should have completed their studies and thus preparing to enter the labour market.

Graph 4.3: Respondents' home-language



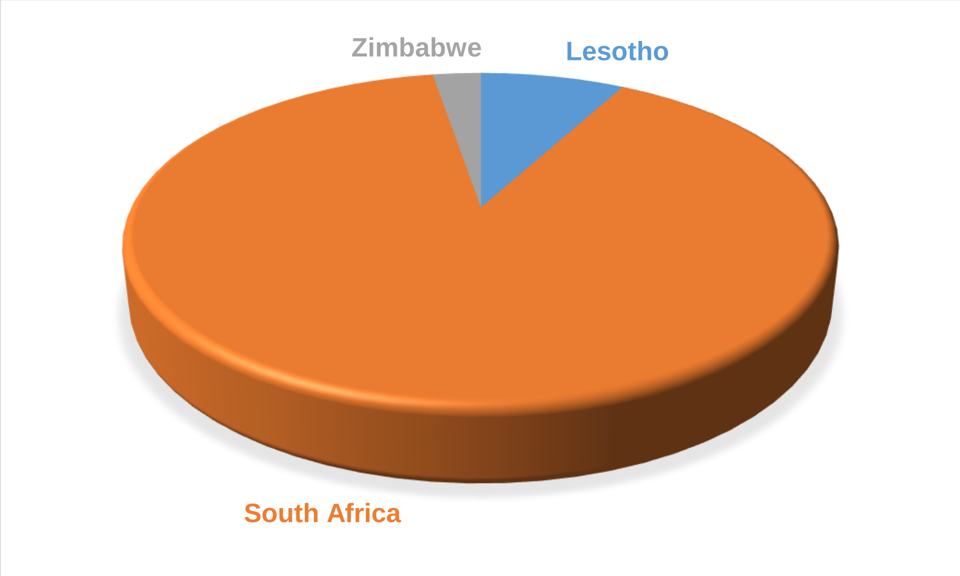
An overwhelming majority of the respondents had Seethe as their home language. Setswana, Afrikaans, English, isiXhosa, isiZulu and isiSwati were also represented.

Graph 4.4: Respondents' citizenship



An overwhelming majority of the respondents were South African citizen. Two respondents did not answer this question.

Graph 4.5: Respondents' country of birth

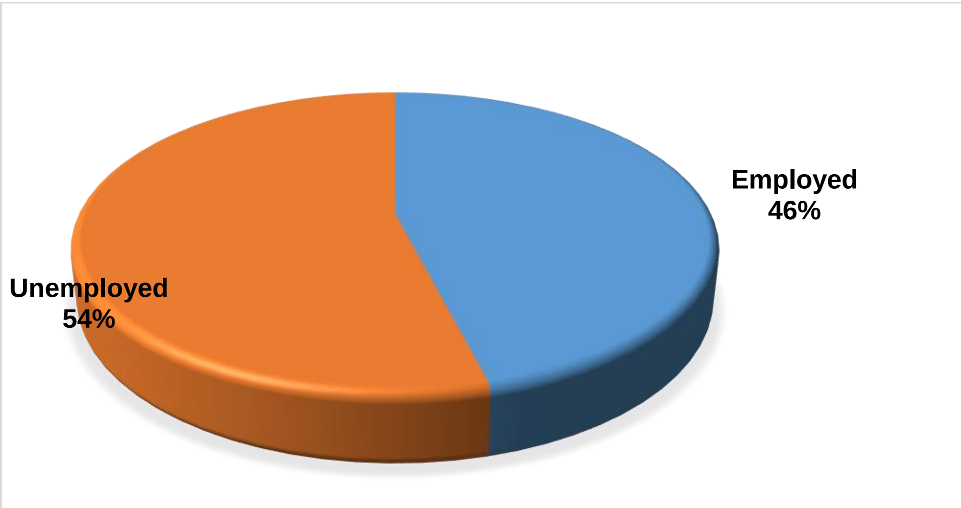


An overwhelming majority of the respondents were South African by birth, though Lesotho and Zimbabwe were also represented. This makes this study wonder if the CUT is marketed in neighbouring African countries.

4.6 HOME ENVIRONMENT

The results for the home environment are as follows:

Graph 4.6: Employment status of your parents/guardians



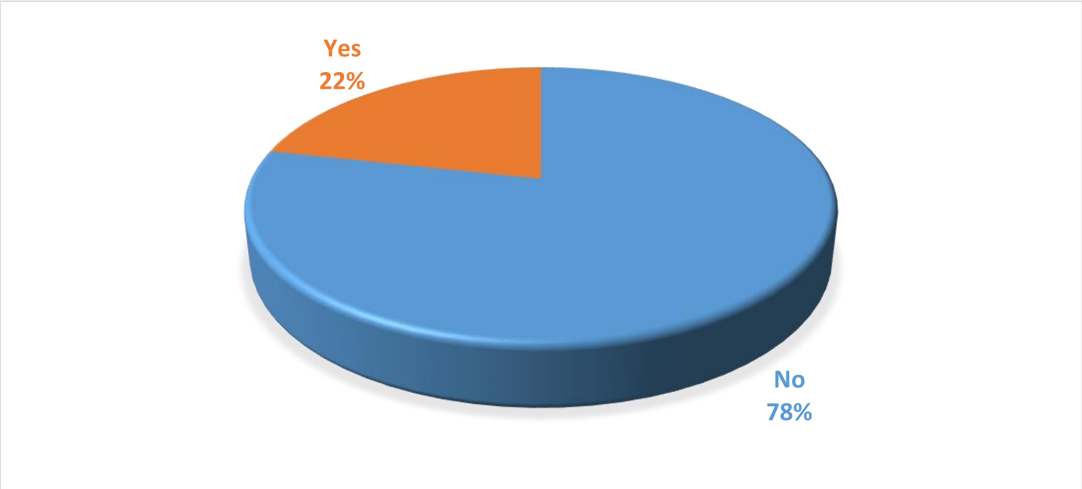
The parents and/guardians of the majority of the respondents were unemployed. Two responded did not answer this question.

Table 4.1: Do you have electricity at home?

Yes/No	Number
No	5
Yes	60
Total	65

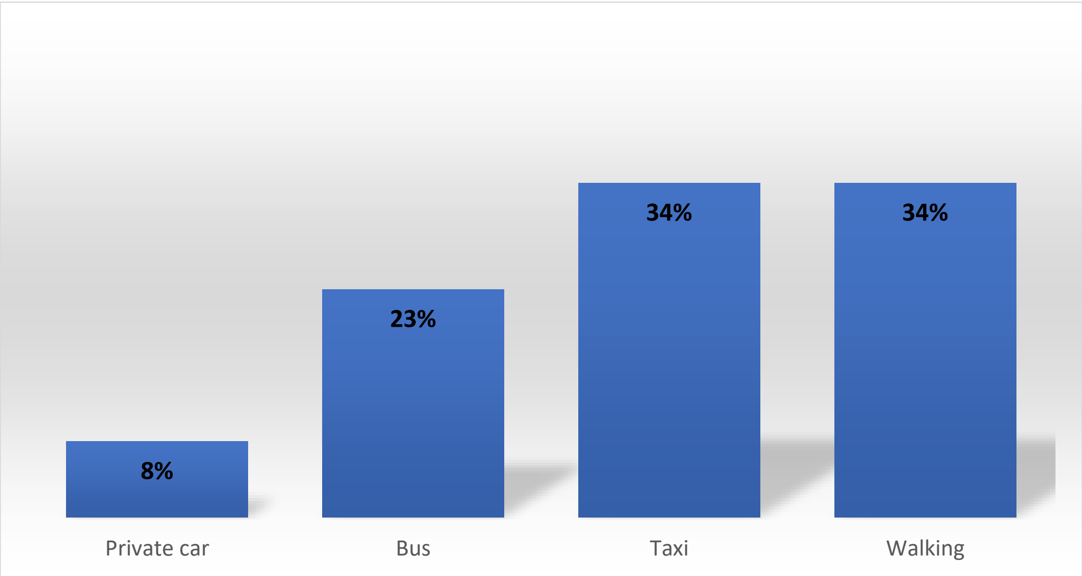
Most of the respondents have electricity at home, thus contributing to provide an environment that is conducive to studying.

Graph 4.7: Do you have an internet connection at home?



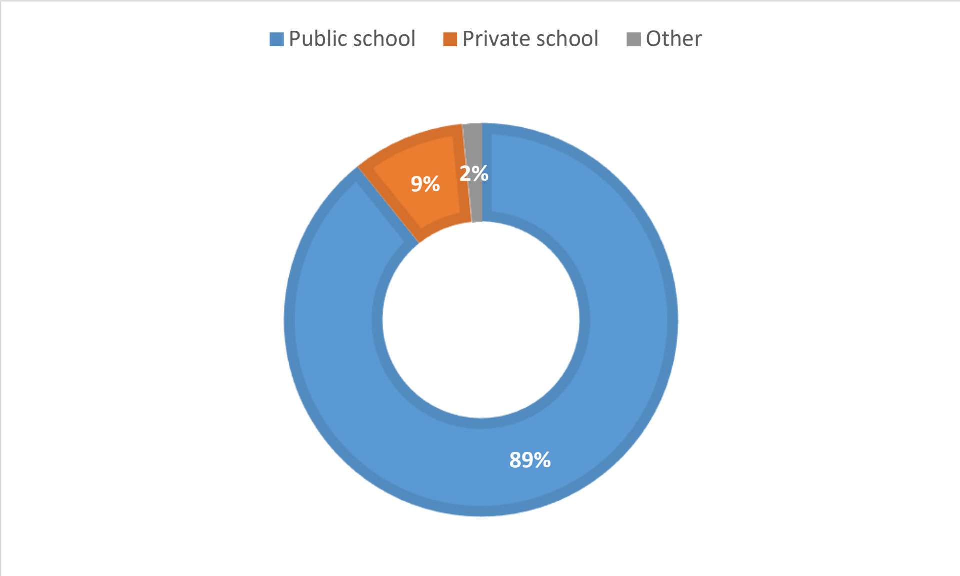
An overwhelming majority of the respondents do have Internet connection at home. This study wonders if these can give students access, for example, Blackboard and eBooks, when they are at home.

Graph 4.8: How do you travel to CUT?



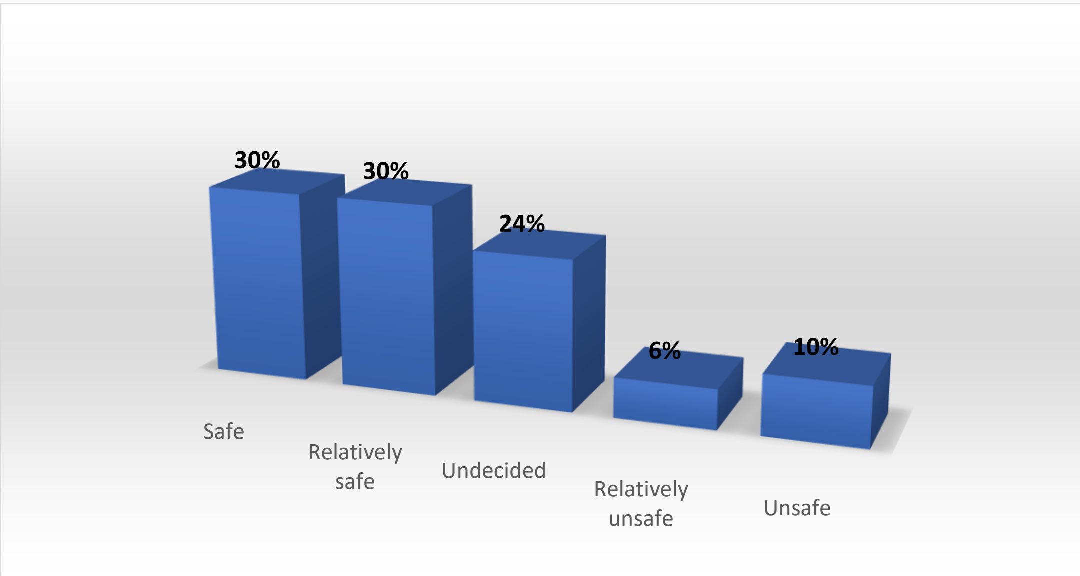
An equal number of students walk to the CUT and use a taxi to get to the CUT, respectively. The remainder of the students travel by bus and use a private car to get to the CUT, respectively. This study wonders if the distance walked to the CUT does not have a bearing on the academic performance of these students. One respondent did not answer this question

Graph 4.9: Where did you do your matric?



An overwhelming majority of respondent did their matric at public schools, with a few students having attended private schools. Section 2.8 of this thesis commented on the state of public schools. The question that comes to the mind of this study is this: what the calibre is, the academic readiness of the students for public schools for the rigours of studying at a university of technology.

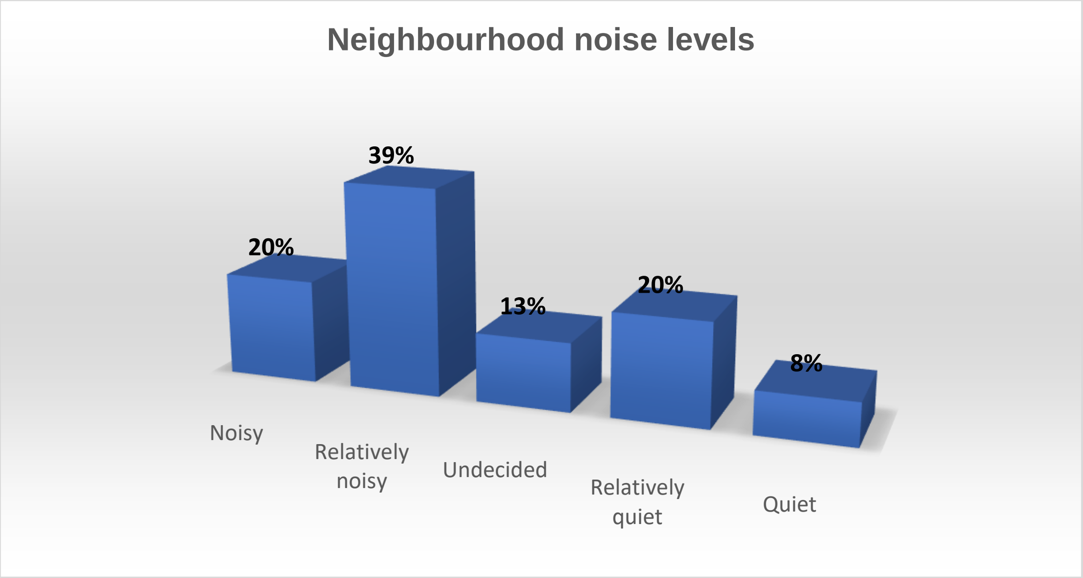
Graph 4.10: Neighbourhood safety



An equal number of respondents said they can describe their neighbourhood as safe and relatively safe. Some respondents were undecided, others said their neighbourhoods are relatively unsafe while the other group said their neighbourhood was unsafe. Given the above, can it be said that the neighbourhoods of the respondents are safe?

From your experience, how would you describe your neighbourhood (where you are staying while registered at CUT, Bloemfontein)?

Graph 4.11: Neighbourhood noise levels

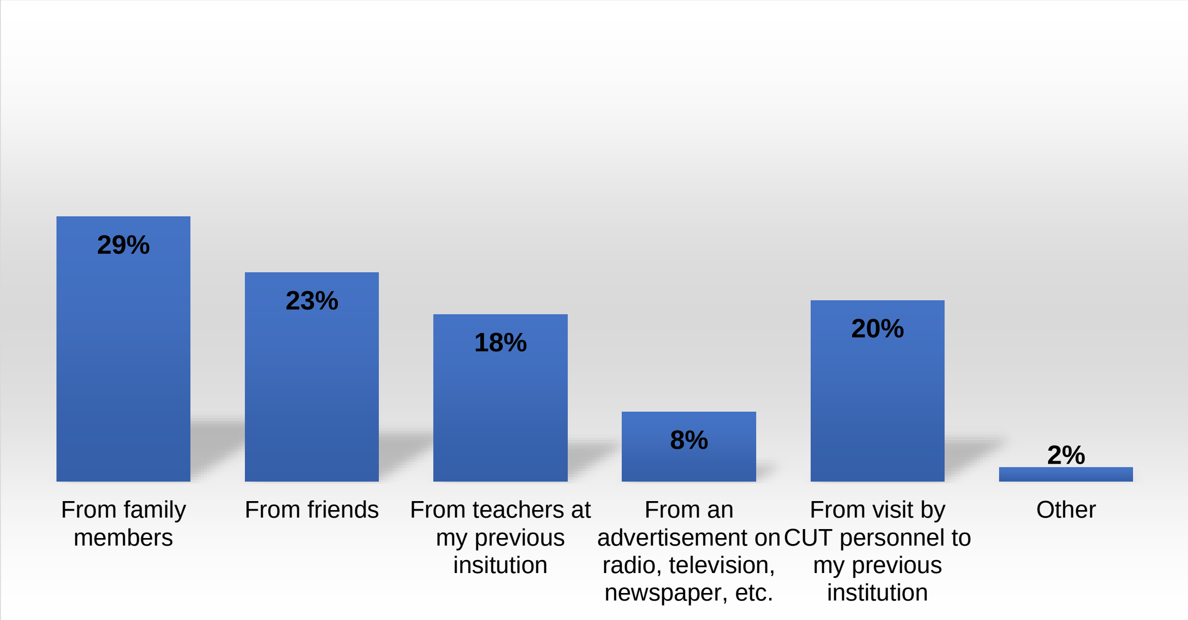


The majority of the respondents indicated that their neighbourhood was relatively noisy. An equal number of respondents said their neighbourhood was noisy and relatively quiet, respectively. Some responders were undecided while others said their neighbourhood was quiet. Given the above, here too, can it be said that the neighbourhoods of the respondents are conducive to studying?

4.7 UNIVERSITY ENVIRONMENT

The finding the University environment are discussed below.

Graph 4.12: How did you come to know about the CUT?



The circumstance that most of the participants learnt of the CUT from family members raises serious questions, for this study, about the marketing of the institution. One respondent did not answer this question

Table 4.2: First encounter with CUT staff

Very helpful	40,0%
Somewhat helpful	24,6%
Helpful	26,2%
Somewhat not helpful	7,7%

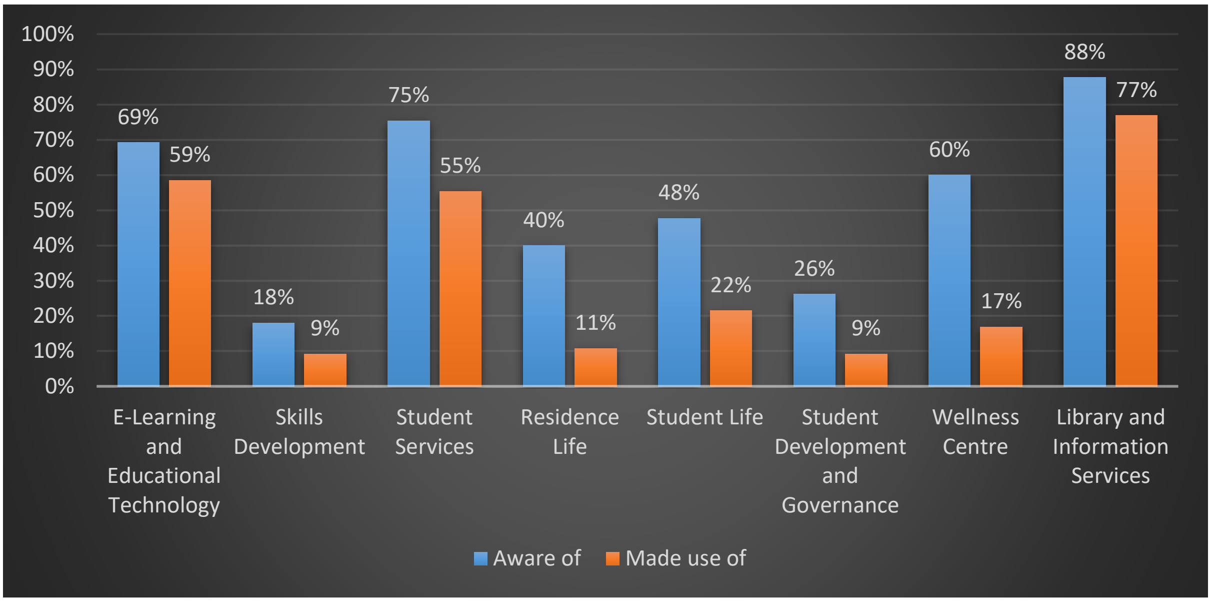
Though the majority of the respondents said they found the CUT staff helpful, there are those who indicated that they found CUT staff somewhat helpful, helpful and somewhat not helpful. This study contends indicated that the CUT as an institution can work on improving interaction with scholars. One participant did not answer this question.

Table 4.3: Overall impression of the CUT so far

Very good	23,1%
Good	50,8%
Undecided	23,1%
Not good	3,1%

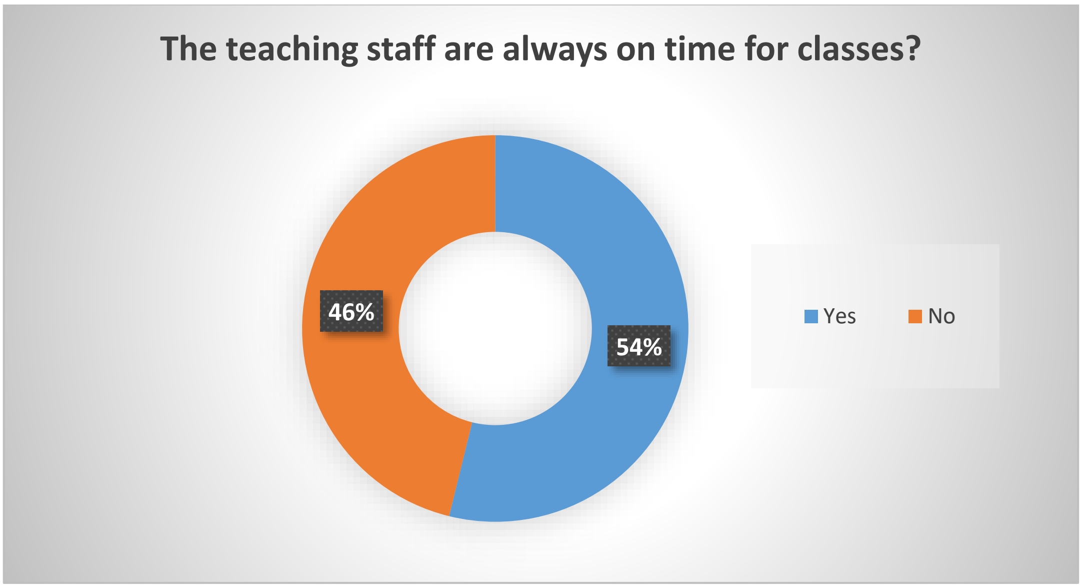
Half of the respondents said that their overall impression of the CUT was good. As Table 16 illustrates, a noticeable number said they were undecided. The question here, for this study, is: what does this say about the CUT?

Graph 4.13: Students who indicated that they were aware of or made use of CUT Student Support Services



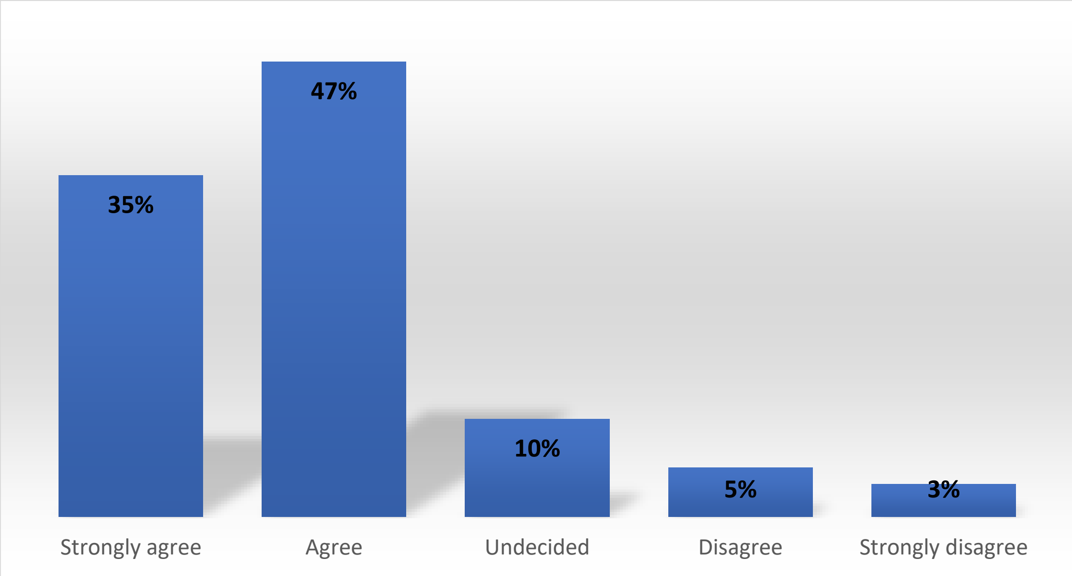
Generally, based on the results depicted in Graph 4.13, it can be said that students are aware of, made use of, CUT Student Support Services. Very few of the responded made use of Skills Development, Residence Life, Student Development and Wellness Centre, respectively. Therefore, this might be that students were never referred there, or maybe they are not aware of this, etc.

Graph 4.14: The teaching staff are always on time for classes?



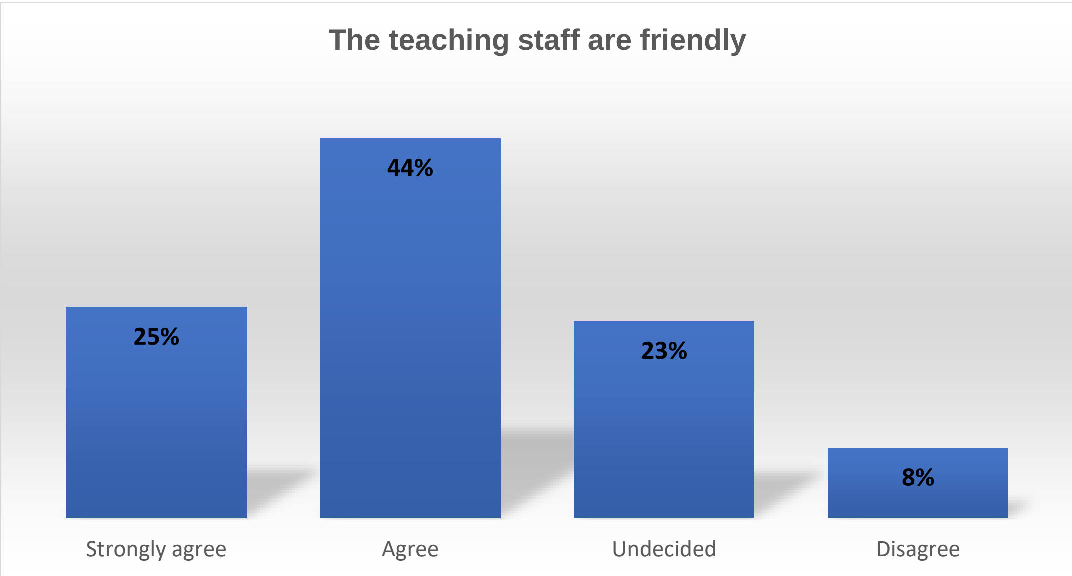
Most of the participants indicated that the staff are always on time for classes.

Graph 4.15: The teaching staff are approachable



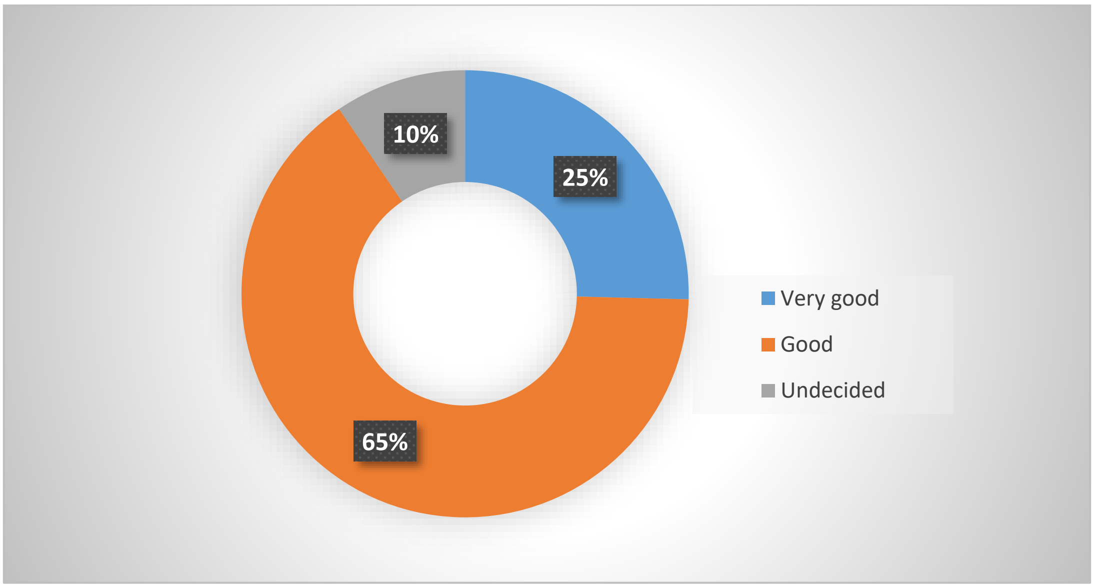
Most of the participants agreed and strongly agreed, respectively, that the teaching staff are approachable. This is very much commendable.

Graph 4.16: The teaching staff are friendly



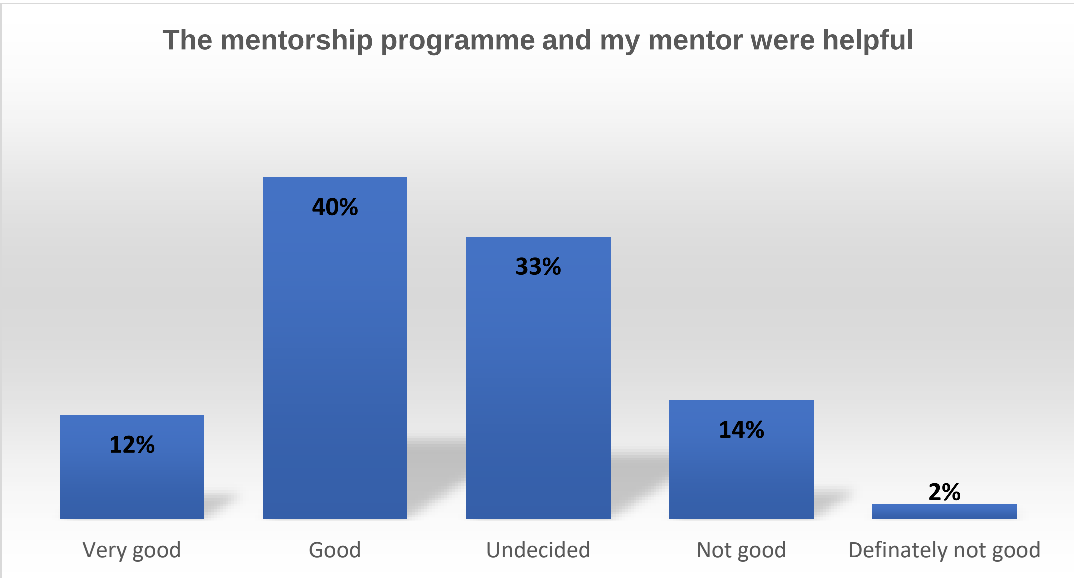
Most of the participants agreed and strongly agreed, respectively, that the teaching staff are friendly. This is admirable.

Graph 4.17: How would you rate your interaction with CUT staff?



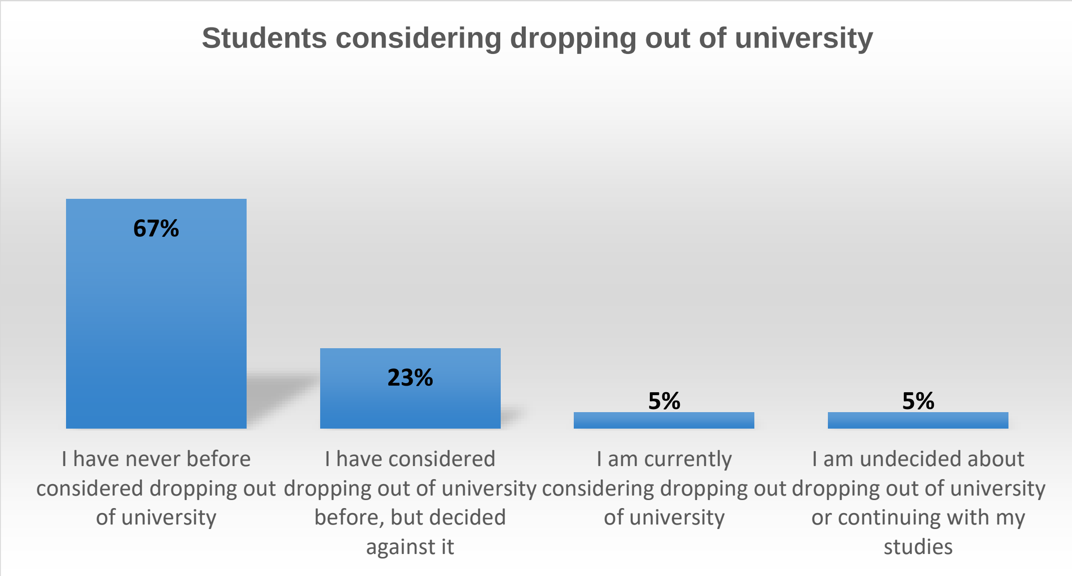
Most of the participants agreed and strongly agreed, respectively, that their interaction with teaching staff in class is good and very good, respectively. The teaching staff are friendly. This is very much praiseworthy.

Graph 4.18: The Mentorship Programme and my mentor were helpful



Though an overwhelming majority of respondents indicated that the Mentorship Programme and their mentor were helpful, there were those respondents who indicated that, on this matter, they were undecided, the Mentorship Programme and their mentor were not good, and that the Mentorship Programme and their mentor were not good. This is point for concern for this study given the pivotal role of the Mentorship Programme and the mentors in assisting the FTEs to adjust to the rigours of studying at a UOT.

Graph 4.19: Students considering dropping out of university



A greater portion of participants indicated that they have never considered dropping out of university

4.8 PROGRAMME REGISTERED FOR

The results discussed below are for programme registration

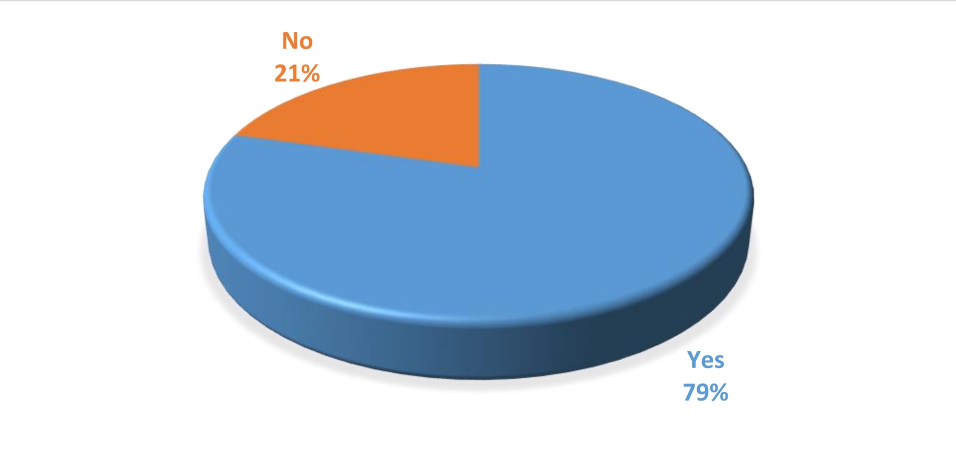
Graph 4.20: Is the programme you registered for at the CUT your first choice of study?

The majority of the respondent indicated that the programme they are registered for at the CUT is their first choice of study. This supports the assertion made in Chapter 1 that whereby a student will register for any academic programme that will accommodate him/her, a situation that this study called Access for Convenience (AFC). This is done for the sole purpose of obtaining space, and a student number, with the intention of registering for a different academic programme in the next academic year. The overall cause of AFC is the stiff competition for limited space at HEIs. What does this mean about interest, academic progress and career prospects?

4.8.1 If no at 4.1, you indicated that you did not register for my first choice of study, is it because:

Why did you not register for your first choice of study?

Graph 4.21: The programme was full?



The majority of the respondent indicated that they did not register for their first choice of study because that particular programme was full. Thus, the FTEs registered for any programme that would accommodate them. Two people who said no in 4.1 did not answer this question.

4.9 NEXT YEAR ARE YOU:

Table 4.4: Next year are you continuing with the programme you registered for even though it is not your first choice of study?

Yes	85%
No	15%

It is surprising that the most of the participants revealed that next year they will continue with the programme they registered for, albeit not their first choice of study. This is in direct contrast to AFC mentioned in Chapter 1, wherein students explained that they will register for any programme that will accept them with the sole purpose of obtaining space, and a student number, with the intention of registering for a different academic programme in the next academic year.

4.10 ADVANCED STATISTICAL ANALYSIS

4.10.1 RESULTS: HOME ENVIRONMENTS

RESULTS: Research question 1: Do the home environments of a university of technology's students in the Somatology and Human Resources Management programmes affect student attrition?

To test research question 1, a binomial logistic regression was run with considering dropping out as dependent variable and living with immediate family members; family members deceased; parents employed/unemployed; utilities at home; stay in a house or other type of housing; number of meals per day; neighbourhood safety; neighbourhood noise levels as independent variables.

Table 4.5: Results: Advanced statistical analysis: Home environment

Omnibus Tests of Model Coefficients				
		Chi-square	df	Sig.
Step 1	Step	2,938	8	,938
	Block	2,938	8	,938
	Model	2,938	8	,938

From the row highlighted yellow in the table above, the model, with all independent variables included, did not statistically, significantly predict whether students considered dropping out or not; $\chi^2(8) = 38$; $p = 0.938$. From the cell highlighted yellow in the Model Summary table below, it can be seen that only 7.5% of the variance in students' considering dropping out can be explained by this model (Nagelkerke R Square = 0.075).

Table 4.6: Results: Advanced statistical analysis: Model Summary: Home environment

Model Summary			
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	63.571[a]	,054	,075

Table 4.7: Results: Advanced statistical analysis: Variables in the Equation: Home environment

Variables in the Equation									
		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
								Lower	Upper
Step 1[a]	Are you living with immediate family members (Mother/father/siblings)	,488	,726	,452	1	,501	1,630	,393	6,766
	Are any of your family members deceased?	,292	,652	,201	1	,654	1,340	,374	4,804
	Are your parents/guardians employed or unemployed	-,322	,693	,215	1	,643	,725	,186	2,822
	Do you have any of the following utilities at home: internet, cell phone, fridge?	-,788	,794	,985	1	,321	,455	,096	2,156
	At home, do you stay in a house or other housing (flat, RDP house, other)?	-,601	,928	,419	1	,517	,548	,089	3,383
	How many times do you eat per day?	,210	,657	,102	1	,750	1,233	,340	4,473
	Neighbourhood safety	,019	,704	,001	1	,978	1,019	,256	4,053
	Neighbourhood noise levels	,486	,746	,424	1	,515	1,625	,377	7,011
	Constant	-,804	1,640	,240	1	,624	,447		

4.10.2 RESULTS: CUT ENVIRONMENT

Research question 2: Does the university of technology's environment influence first year university students' attrition in the Somatology and Human Resource Management programmes?

***Note: As a result of the inadequate scope of the specimen, all variables in the questionnaire related to the CUT environment could not be included separately in the regression. Therefore, variables were combined as follows**:

New variable: Availability of teaching staff - this variable was created by combining the following questions: "The teaching staff are always on time for class"; "The teaching staff communicate cancellation of classes on time"; "The teaching staff have consultation hours"; "The teaching staff are available during time set for consultation hours". These variables were combined by counting the number of the previously named questions that students answered "Yes" to. For example, students who answered "Yes" to all of these questions were given a score of 4 for "Availability of teaching staff"; whereas students who answered "Yes" to none of these questions were given a score of 0 for "Availability of teaching staff".

New variable: Teaching and learning support and resources - this variable was created by combining the following questions: "The teaching staff provide feedback on time"; "There are enough resources to fashion a setting favourable to learning and teaching "; "The support staff are cordial and approachable"; "The teaching staff are approachable"; "The teaching staff are friendly"; "The teaching workforce are always willing to help when assistance is sought"; “The teaching staff made me aware of CUT support services"; "Teaching staff suggested successful methods of studying". These variables were combined by counting the number of the previously named questions that students agreed to some extent with. For example, students who agreed to some extent with all of these questions, were given a score of 8 for "Teaching and learning support and resources"; whereas students who agreed to some extent with none of these questions were given a score of 0 for "Teaching and learning support and resources".

New variable: Interaction with CUT staff - this variable was created by combining the following questions: "Interaction with CUT staff in class"; "The support provided by tutors is helpful"; "The mentorship programme and my mentor were helpful"; "Teaching staff told me what to expect in studying at university". These variables were combined by counting the number of the previously named questions that students responded to as "good" or "very good". For example, students who responded "good" or "very good" to all of these questions, were given a score of 4 for "Interaction with CUT staff"; whereas students who responded "good" or "very good" to none of these questions were given a score of 0 for "Interaction with CUT staff".

New variable: Interaction with fellow students - this variable was created by combining the following questions: "Interaction with fellow students in between classes"; "Interaction with fellow students in your study group"; "Interaction with fellow students at the hostel/home where you are staying". These variables were combined by counting the number of the previously named questions that students answered "good" or "very good" to. For example, students who responded "good" or "very good" to all of these questions, were given a score of 3 for "Interaction with fellow students"; whereas students who responded "good" or "very good" to none of these questions were given a score of 0 for "Interaction with fellow students".

Binomial logistic regression (Dependent variable: Considering dropping out; Independent variables: Availability of teaching staff; Teaching and learning support and resources; Interaction with CUT staff; Interaction with fellow students).

To test research question 2, a binomial logistic regression was run with considering dropping out as the dependent variable and availability of teaching staff; Teaching and learning support and resources; Interaction with CUT staff; Interaction with fellow students) as the independent variables

Table 4.8: Results: Advanced statistical analysis: Omnibus Tests of Model Coefficients: CUT Environment

Omnibus Tests of Model Coefficients				
		Chi-square	df	Sig.
Step 1	Step	,991	4	,911
	Block	,991	4	,911
	Model	,991	4	,911

From the row highlighted yellow in the table above, the model, with all independent variables included, did not statistically significantly predict whether students considered dropping out or not; $\chi^2(4) = 0.991$; $p = 0.911$. From the cell highlighted yellow in the Model Summary table below can be seen that only 2.1% of the variance in students' considering dropping out can be explained by this model (Nagelkerke R Square = 0.021).

Table 4.9: Results: Advanced statistical analysis: Model Summary: CUT Environment

Model Summary			
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	80.013[a]	,015	,021

Table 4.10: Results: Advanced statistical analysis: Variables in the Equation: CUT Environment

Variables in the Equation									
		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
								Lower	Upper
Step 1[a]	Availability_of_Teaching_Staff	-,009	,234	,002	1	,968	,991	,627	1,566
	Teaching_and_learning_support_resources	,007	,143	,002	1	,961	1,007	,761	1,332
	Interaction_CUT_staff	-,231	,272	,722	1	,396	,793	,465	1,353
	Interaction_fellow_students	,084	,314	,071	1	,789	1,088	,587	2,014
	Constant	-,294	,906	,106	1	,745	,745		

As would be expected with a non-significant result for the model as a whole, none of the factors in the university's environment included in the model made a statistically significant unique contribution to the prediction of whether students have considered dropping out before or not (all p-values in the table above is greater than 0.05).

4.10.3 RESULTS: LACK OF OPPORTUNITY TO REGISTER IN A COURSE, WHICH IS THEIR FIRST CHOICE OF STUDY

Research question 3: Does lack of opportunity to register in a course, which is their first choice of study, contribute to high attrition rates among first year students in the Somatology and Human Resources Management programmes?

To test research question 3, a binomial logistic regression was run with considering dropping out as dependent variable and is the programme you registered for at CUT your first choice of study?).as independent variables

Table 4.11: Results: Advanced statistical analysis: Omnibus Tests of Model Coefficients: Lack of opportunity to register in a course, which is their first choice of study

Omnibus Tests of Model Coefficients				
		Chi-square	df	Sig.
Step 1	Step	,234	1	,629
	Block	,234	1	,629
	Model	,234	1	,629

From the row highlighted yellow in the table above, the model, with all independent variables included, did not statistically significantly predict whether students considered dropping out or not; $\chi^2(1) = 0.234$; $p = 0.629$. From the cell highlighted yellow in the Model Summary table below, it can be seen that only 0.5% of the variance in students' considering dropping out can be explained by this model (Nagelkerke R Square = 0.005).

Table 4.12: Results: Advanced statistical analysis: Model Summary: Lack of opportunity to register in a course, which is their first choice of study

Model Summary			
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	80.770[a]	,004	,005

Table 4.13: Results: Advanced statistical analysis: Variables in the Equation: Lack of opportunity to register in a course, which is their first choice of study

Variables in the Equation									
		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
								Lower	Upper
Step 1[a]	Q4_1_Programme_first_choice(1)	,268	,558	,231	1	,631	1,308	,438	3,905
	Constant	-,887	,449	3,904	1	,048	,412		

As would be expected with a non-significant result for the model as a whole, the independent variable (whether the programme is their first choice) did not make a statistically significant contribution to the prediction of whether students have considered dropping out before or not (p=0.631).

4.10.4 RESULTS: CUT INTERVENTIONS

Research question 4: Are current CUT interventions (i.e. CUTs student support services) effective in assisting first year students in the Somatology and Human Resources Management programmes to cope with their studies?

To test research question 4, a binomial logistic regression was run with current CUT interventions as dependent variable and assisting first year students in the Somatology and Human Resources Management programmes to cope with their studies as the independent variable.

Table 4.14: Results: Advanced statistical analysis: Omnibus Tests of Model Coefficients: CUT interventions

Omnibus Tests of Model Coefficients				
		Chi-square	df	Sig.
Step 1	Step	1,764	2	,414
	Block	1,764	2	,414
	Model	1,764	2	,414

From the row highlighted yellow in the table above, the model, with all independent variables included, did not statistically significantly predict whether students considered dropping out or not; $\chi^2(2) = 1.764$; $p = 0.141$. From the cell highlighted yellow in the Model Summary table below, it can be seen that only 3.8% of the variance in students' considering dropping out can be explained by this model (Nagelkerke R Square = 0.038).

Table 4.15: Results: Advanced statistical analysis: Model Summary: CUT interventions

Model Summary			
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	79.240[a]	,027	,038

Table 4.16: Results: Advanced statistical analysis: Variables in the Equation: CUT interventions

Variables in the Equation									
		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
								Lower	Upper
Step 1[a]	Aware_Student_Support_Services	-,149	,129	1,324	1	,250	,862	,669	1,110
	Use_Student_Support_Services	,267	,236	1,275	1	,259	1,306	,822	2,076
	Constant	-,716	,576	1,544	1	,214	,489		

As would be expected with a non-significant result for the model as a whole, the independent variables (Awareness of student support services and Use of student support services) did not make a statistically significant unique contribution to the prediction of whether students have considered dropping out before or not (p>0.05).

4.11 CONCLUSION

Chapter 4 deliberated on the statistics, population sample, interpretation and the discussion of the findings of this study. These findings conferred as to whether the following have a bearing on attrition: the home environment of the FTEs in Somatology and Human Resources Management, the university environment, the programme registered for, and if next the FETs are continuing with the programme the registered for in the following academic year. Advanced statistical analysis and the results thereof were also discussed. Chapter 5 will discuss the summary, recommendations and conclusions

CHAPTER 5: SUMMARY, RECOMMENDATIONS AND CONCLUSIONS

5.1 INTRODUCTION

The idea to conduct this study came from what FTEs said during interviews when the internal reviews of academic programmes were conducted at the CUT, Bloemfontein campus. The objective of this research was to explore the causes of attrition among first year university of technology students with special reference to the Somatology and Human Resources Management programmes in the ManFac and H&ESFac, respectively. This study wanted to explore whether, or not, if the home environment of the FTEs in Somatology and Human Resources Management, the university environment and the programme registered for contribute to attrition. Also investigated was whether the FETs in Somatology and Human Resources Management are continuing with the programme they registered for in the following academic year since most of them indicated during the internal review of academic programmes that the programmes they were registered for are not their first choice of study.

The study had initially intended to combine qualitative and quantitative approaches. However, although the study intended to conduct interviews, this was not possible since the FTEs were not willing to take part. They sighted their workload as the reason for not taking part in the intended interviews. This study had to thus use a survey form to gather the required information. The information that was collected was analysed by a qualified statistician. This study responded to the research questions, albeit the findings were inconclusive due to the inadequate size of the specimen. Although, the findings were inconclusive, the rigour of the data analysis suggests that, for example, this investigation can be reproduced with a greater scope of the specimen to see if the results will be the same or not.

This section will provide a review of the whole investigative venture, make recommendations resulting from this study and also to make recommendations for further study in the field of attrition among FTEs.

5.2 SUMMARY OF THE STUDY

In Chapter 1, it was mentioned that attrition permeates the entire higher education sector. The aims, hypotheses and statement of the problem were also addressed in this section.

In Chapter 2, the review of relevant literature was conducted on the causes of attrition. Reference was made to studies conducted in South Africa and across the globe. Also discussed was a brief history of higher education provision in South Africa.

In Chapter 3, the research methodology relevant to this study with special reference to the research design, population and sampling, as well as data collection methods were discussed.

In Chapter 4, the research outcomes/discoveries were discussed.

In Chapter 5, the brief, inferences and commendations are made.

5.3 RECOMMENDATIONS

In Chapter 2 of this study, it was mentioned that parents, guardians, bursary providers and/or sponsors could be updated of the academic performance of the FTEs on a regular basis as way of eliciting their support in observing and monitoring attrition. The methods of achieving this as mentioned earlier will be discussed next.

Recommendation 1

Developing a System for the Monitoring of Student Progress (SMSP) at a university of technology which will be dedicated to the monitoring of academic progress as a way of identifying at-risk students

This study recommends the establishment of the System for the Monitoring of Student Progress (SMSP) at a UOT will try to reduce the rates of attrition by identifying at-risk students on time. To identify at-risk st udents on time, this study proposes that the parents, guardians, bursary providers and/or sponsors be kept up to date with the academic performance of the FTEs in Human Resources Management and Somatology? Here this study would like to paint the following scenarios
Here this study would like to postulate the following scenarios:

- **Curriculum-Based Measurement (CBM):** This study sees great value for this if math, reading, writing, and spelling were to be incorporated with what is done at the CUT's Wellness Centre (the CUT's Wellness Centre was mentioned in Chapter 1). Reinforcing these skills will go further to avert the earlier mentioned challenge that the grade 12 success rate is a frivolous and deceptive indication of the excellence of government schooling predominantly as thorough scrutiny exposes a constant catastrophe in elementary schooling in South Africa. Schools are crippled by difficulties, which, among others, include absence of assistance for initial childcare advancement (also known as

Early Childhood development or ECD), overcrowded classrooms as well as lack of support for elementary schooling (Grade R to Grade 3) educators (Equal Education, 2017). CBM can be supportive to parentages since it delivers present, weekly evidence of the development their children. CBM also observes the favourable outcome of the teaching children are getting - if a child's achievement is not up to the expected level, the educator then amends the method of instruction to attempt to discover the kind and quantity of teaching that is required for the learner to make satisfactory advancement toward achieving the objectives of the instruction offered. The educator can alter the teaching in numerous fashions. For instance, he or she might upsurge time allocated for teaching, modify an instructional practice or methods of offering the subject matter or vary how learners are grouped (for instance, separate teaching in the place off interacting with a small group). After the modification, the parent and the teacher can observe the achievement on a weekly basis on the chart to determine if the amendment is assisting his/her child. if there is no change, then the educator can attempt additional variation in his/her teaching, and its accomplishment will be traced on a weekly basis (McLane, 2007).

- That CMB offers present, weekly evidence of the development to parents offers this study an opportunity to make a meaningful contribution to studies on attrition : Why not keep the parents, guardians, bursary providers and/or sponsors up to date about the academic performance of the FTEs in Human Resources Management and Somatology, respectively? As a former teacher with close to 15 years' experience, this scholar observed that there was a marked improvement in the academic performance (and discipline, which falls out of the scope of this study) of high school learners when the parents were playing a role in the teaching, schooling and instruction of their children. The parents were requested to, among others, monitor if the learners are studying at home, reduce the daily chores the learners are expected to do so as to give them more time to study, to motivate their children to study and to ask, on a regular basis, if the learner is coping with school work and also to check on the well-being of learners regularly. These might sound trivial. Yet, the fact that universities are facing the problem of attrition is well-known, despite the millions of Rands spent on higher education. So this study asks, why not try involving parents, guardians, bursary providers and/or sponsors in the higher education of our FTEs in Human Resources Management and Somatology, and see if their academic performance will improve? The This study believes that there is no harm in trying.

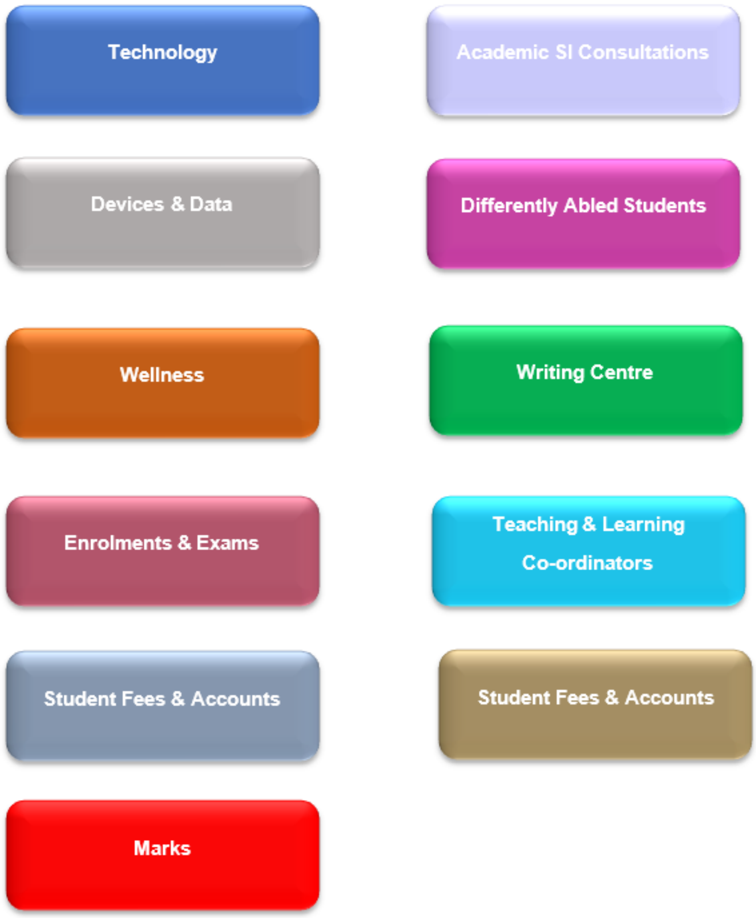
Recommendation 2

Establishing regular contact with student, parents/guardians and sponsors:

- **Cell phone numbers:** sending an SMS to parents, guardians, bursary providers and/or sponsors is the easiest and simplest way of updating them on their children's academic performance. The downside here is FTEs might provide incorrect cell phone numbers to the university for the sake of defeating this purpose. Another possible disadvantage is that it will be costly for the CUT to send SMSs to parents given the current financial constraints. The purpose of sending SMSs, and emails as explained below, would to keep parents, guardians, bursary providers and/or sponsors up to date on the academic performance of FTEs. It might be that the FTEs are struggling academically in silence, and only to find that all that to motivate and encourage FTEs the preserver and succeed academically is the support of mainly their families. This support can be in the form of the families of FTEs affording FTEs the opportunity to study by, for instance, exonerating them from daily chores. Furthermore, families of the FTEs can provide an environment that is conducive to studying, by for example, ensuring that it is quiet by the time FTEs study. The researcher contends that this kind of family support will go a long way in assuring FTEs that they have their families' support, thus making them aware of the sacrifice and contribution of their families' toward their studies and therefore motivating and encouraging the FTEs to perform much better academically. Moreover, to might happen that FTEs are more comfortable talking to someone they trust about challenges they experience at university.

- **Sending an email:** the possible shortcoming here is that parents and/or guardian, particularly in the previously disadvantaged communities, not have email addresses. Even if they did, like it was mentioned earlier, FTEs might provide incorrect email addresses to the university for the sake of defeating this purpose. Here too, the limitation will be the financial constraints.

- **A mobile app:** here, this study postulates that the CUT should develop a mobile app that parents, guardians, bursary providers and/or sponsors can download from the Play Store on an Android device or the App Store on an iOS device. The advantage here is that more and more people are using smartphones nowadays (MyBroadband, 2015). The proposed mobile app will be named CUT App. After downloading the app, the user will be able to log in after entering the student number. Once logged on, with special reference to the Marks menu in the CUT App, the information can be displayed in the way it is depicted in 5.1 below. Moreover, the CUT App will have a menu of the services available to students as adapter from the CUT VC's communique of 24 April 2020: CUT online student guide, in the manner depicted in table 15. Additionally, the CUT App will have sub-menus that reflect the CUT's Student Support Services. To guarantee confidentiality, only the date of the consultation will be reflected. In the same breathe, it will be indicated if the student honoured the appoint for referral to CUT's Support services:



Picture 5.1: CUT App menu (from the CUT VC's communique of 24 April 2020: CUT online student guide)

MARKS				
HRM/Somatology Modules, Tests, Assignments, (WIL-where applicable)				
TESTS	Date of Test 1	Mark for Test 1	Date of Test 2	Mark for Test 2
ASSIGNMENTS	Date Assignment 1 was announced	Mark for Assignment 1	Date Assignment 2 was announced	Mark for Assignment 1

Picture 5.2: **Marks menu in the CUT App**

In Picture 5.2, the parents, guardians, bursary providers and/or sponsors will see the date during which the FTE concerned was referred to counselling, reading development, academic support and social work services. About the marks for tests and assignments, the parents, guardians, bursary providers and/or sponsors date will be kept up to date about the academic performance of the FTEs. Just like with high school learners mentioned earlier, this study postulates that there will be marked improvement in the academic performance of the FTEs in the Human Resources Management and Somatology programmes when the parents, guardians, bursary providers and/or sponsors are kept up to date with their academic performance. In the summary column there will be a summary as to whether a FTE is making progress or not.

Recommendation 3

- **Establishing the Office of the Student Ombudsman for Student' Complaints (OSOAC):** Here, the functions of the Tshwane University of Technology's (TUT) Office of the Student Ombudsman for Student' Complaints have been cited as point of departure for the CUT's postulated benchmarking. The Office of the Students' Ombudsman offers enrolled TUT students with a facility for addressing the disputes raised by any scholarly grievances they might come upon. The foremost aim of this facility is to render backing, therapy and encouragement to scholars with respect to all educational, studying and appraisal, and supervision-linked complications the scholars might encounter along their scholarly careers. The function of the Students' Ombudsman is one of a final option, meaning that the Ombudsman will arbitrate in a complaint only when all responsible academic line management and other approaches for deciding the issues raised were explored and exhausted (http://www.tut.ac.za/prospectus/2015/pdf/Part1/Chapter%2031.pdf)

- **Descriptions**
  - ❖ Scholarly grievance denotes to any grievance that scholars may encounter in relation to scholarly educational, studying, graduate administration, investigative studies and scholarship (The Office of the Students' Ombudsman for Academic Complaints: 2015).
  - ❖ Academic line management refers to the part of the University or member(s) of the workforce answerable for dispensing a facility or performing the procedure regarding the grievance that is being lodged. These encompass DVC: Teaching, Learning and Technology (For the CUT, it will be DVC: Teaching and Learning), DVC: Postgraduate studies, Research and Innovation (For the CUT, it will be DVC: Research, Innovation and Engagement), executive deans, programme coordinators, lecturers and heads of departments.
  - ❖ Complainant alludes to a person lodging a grievance.
  - ❖ Official grievance denotes a transcribed grievance, that bears the signature of the complainant and directed to any relevant manager.

- ❖ Resident stage denotes the locale of the University or its workforce accountable for delivering facility or conducting the procedure around which the grievance has been submitted.
- ❖ Non-completion student refers to former TUT student with unfinished qualification but who is not excluded on academic grounds but is not registered for the current academic year.
- ❖ Prospective student refers to any person who has shown interest in registering or has already officially made an application to register for a qualification offered by TUT.
- ❖ Respondent denotes a person who replied to a grievance.
- ❖ The Office of the student Ombudsman is an agency of arbitrating students' academic grievances as an autonomous but vital part of the complaint resolution measures at TUT.
- ❖ Troublesome grievance implies grievances that are frolicsome, giddy and playful and or purposely envisioned to exasperate or bring torment, distress, anguish and suffering to other persons (http://www.tut.ac.za/prospectus/2015/pdf/Part1/Chapter%2031.pdf).

- **Parts that the office of the students' ombudsman excludes**
  - ❖ Grievances submitted by potential students (non - enrolled students).
  - ❖ Non-registered students at TUT and those students who have made applications for recognition of prior learning (RPL).
  - ❖ Assertions of voluptuous nuisance, biased judgement or discrimination.
  - ❖ Punitive procedures introduced against a scholar for whatsoever purpose in alternative environment.
  - ❖ Academic exclusions on the basis of unacceptable unsatisfactory academic growth and progress.
  - ❖ Grievances that are not related to scholarly matters by the university who are registered students of TUT.
  - ❖ Grievances concerning lodging and dwellings (http://www.tut.ac.za/prospectus/2015/pdf/Part1/Chapter%2031.pdf)

- **Processes for laying a grievance and disclosure processes**
  - ❖ A scholar with a grievance shall independently interact with the office of the Student Ombudsman, or may be escorted by a class delegate or an associate of the Student Representative Council (SRC) when laying an official grievance.
  - ❖ The petitioner shall ascertain that he/she has made attempts to resolve the matter with all stakeholders who are relevant to his/her complaints such as the Executive Dean of the Faculty concerned, lecturer or head of academic department, whomsoever in the milieu the complaint originates from.
  - ❖ The Office of the Student Ombudsman shall only investigate the allegations made when the complainant has provided evidence that all relevant academic departments and faculty furnished management procedures and processes have been exhausted and thus explored in full, and the complaint was not resolved in a satisfactory manner.
  - ❖ The Ombudsman shall then evaluate the worth of the case whether or not it permits an inquiry to be carried out or be submitted elsewhere.
  - ❖ The grievance shall be terminated and be dismissed if the Students' Ombudsman is of the belief that:
    - ✓ The grievance is untrue and inundated with all kinds of deceit, dishonesties and in exactitudes.
    - ✓ The occurrence occurred at too distant a time to authorize an investigation.
    - ✓ There happens to be an alternative and sensible ways of dealing with the complaint inside the University. In cases of this nature, the Students' Ombudsman might provide direction to a plaintiff as to alternative internal approaches for addressing the concerns regarding concerned complaint.
    - ✓ If the plaintiff is liable to a disciplinary enquiry or plea procedures within the University, the Students' Ombudsman shall conduct no further investigation into the complaint pending the finalisation of the hearing or appeal.
    - ✓ The student is discourteous, unethical and uses disparaging language towards the workforce concerned in the matter, be it verbally or in written form.
    - ✓ The scholar is not in possession of any written proof such as documented statement, projects or writings between him/her with the concerned staff member to authenticate his/her contentions (http://www.tut.ac.za/prospectus/2015/pdf/Part1/Chapter%2031.pdf)

Where a grievance warrants supplementary enquiry, the stages mentioned below shall be followed.

- The scholar laying a grievance shall be asked to:

- ❖ Write down the detailed particulars of the grievance and all other internal measures and methods that he/she has followed earlier to lodging the complaint with the Office of the Students' Ombudsman; and
- Complete a grievance template; suggesting, inter alia, the subsequent evidence:
  - ❖ The scholar's private interaction and scholarly, if possible, a functioning TUT4life e-mail address (for the CUT, a student will preferably use his/her CUT email address);
  - ❖ If the scholar endeavoured to resolve the complaint with any additional university workforce suchlike academic administrator, head of the department or the Lecturer concerned;
  - ❖ An account of the definite kind of the grievance;
  - ❖ His/her preference of how the grievance could be settled; and
  - ❖ Any supportive documented evidence that will be used as evidence, e.g. projects, study guide, assignment, test scripts;
- If a student declares his/her desire to be anonymous as a result of the likelihood of harassment and/or other undesirable penalties, the Students' Ombudsman may begin with an inquiry without the matter being addressed at resident stage first.
- Once the grievance template has been completed, the Students' Ombudsman shall commence the investigation of the complaint.
- Once the enquiry has been concluded, the petitioner shall be given the response.
- The plaintiff shall seasonably alert the Students' Ombudsman if the ruling of the Ombudsman is practical or not, so that the Ombudsman will be able to follow-up and evaluate the implementation of the endorsements and judgement (http://www.tut.ac.za/prospectus/2015/pdf/Part1/Chapter%2031.pdf)

Contacting the students' ombudsman

- ❖ Here the CUT will provide contact details of the office of the students' ombudsman (http://www.tut.ac.za/prospectus/2015/pdf/Part1/Chapter%2031.pdf)

Recommendation 4

Respondents' country of birth: CUT marketing and brand visibility

An overwhelming majority of the respondents were South African by birth, though Lesotho and Zimbabwe were also represented. Here, this study proposes that the CUT be marketed in neighbouring African countries, thus increasing their brand visibility.

Recommendation 5

Are your parents/guardians employed/unemployed?

The fact that the majority of the parents of the participants (54%) were unemployed points to the fact that the fees of students are paid by loans, NSFAS, bursaries, etc. this further raises the question of how students pay for food, accommodation, transport, books, etc. Moreover, this supports the implementation of the System for the Monitoring of Student Progress (SMSP) at a university the CUT which will be dedicated to the monitoring of academic progress as a way of identifying at risk students. Additionally, parents/guardians and sponsors will thus be kept up to date by regular updates of the CUT FET Dashboard mobile app. This study argues that they too can lend a hand in addressing poor academic performance and attrition.

Recommendation 6

At home, do you have

This item was included (electricity, internet, cell phone and fridge) given the convenience, which falls outside the scope of this study, they offer the user. This could be an interesting area of further study, like the Youth Save Project mentioned in Chapter 2, which could look at the impact of their presence and absence on academic performance.

Recommendation 7

Where did you do your matric?

An overwhelming majority of respondent did their matric at public schools, with a few students having attended public schools. Given the state of public schools as mentioned in Section 2.8 of this thesis, this study recommends that it should be compulsory for these students to attend a basic literacy, numeracy and computer module for at least the first semester. This study believes that there are pockets of excellence that will lead to exemption of some students, yet this module will benefit the majority of these students.

Recommendation 8

Neighbourhood safety (where you are staying while registered at CUT, Bloemfontein)?

Some respondents indicated that their neighbourhood was unsafe, while others were undecided, others said their neighbourhoods are relatively unsafe while the other group said their neighbourhood was unsafe. Given the above, this study recommends that the CUT should prioritise on-campus and near-campus accommodation for students.

Recommendation 9

Neighbourhood noise levels (where you are staying while registered at CUT, Bloemfontein)?

The majority of the respondents indicated that their neighbourhood was relatively noisy. Some respondents said their neighbourhood was noisy. Another group of responders were undecided while others said their neighbourhood was quiet. Here too, this study recommends that the CUT should prioritise on-campus and near-campus accommodation for students.

Recommendation 10

How did you come to know about the CUT?

The majority of the respondents learnt of the CUT from family members. This raises serious questions, for this study, about the marketing of the institution. One respondent did not answer this question. The lowest number of respondents said they learnt of the CUT from an advertisement on radio, television, etc., to name but a few, while the other group said they learnt of the CUT from visit by CUT personnel to their previous institutions. This highlights the point raised earlier about CUT marketing and brand visibility.

Recommendation 11

Students who indicated that they were aware of or made use of CUT Student Support Services

Since very few of the responded made use of Skills Development, Residence Life, Student Development and Wellness Centre, respectively, a study can be conducted to find specific reasons as why this is the case.

Recommendation 12:

- A tracer study of the employability of the FTEs in the 20-23 years old age group can also be pursued.
- 34% of the respondents walk to the CUT. It will be very informative to find out what is the actual distance here, and if this has a bearing on academic performance.
- The majority of the respondent indicated that they did not register for their first choice of study because that particular programme was full. Thus, the FTEs registered for any programme that would accommodate them. This warrants an investigation as to whether FTEs met the entry requirements of the programmes their registered for.

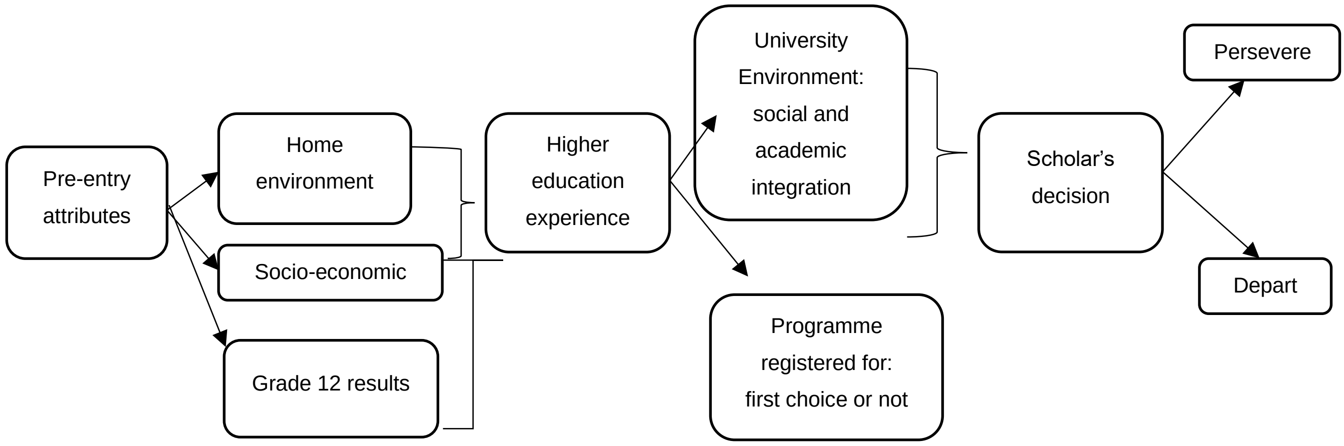
Recommendation 13:

- The CUT should come up with a fully-fledged residency policy that will enforce the amount of time scholars can complete their studies.

Recommendation 14

This study proposes the Morolong Student Attrition Model below. This model is based on Tinto's Institutional Departure Model and Bean and Metzner's Non Traditional Undergraduate Student Attrition Model (Aljohani, 2016: 5-7 and 9-10). Additionally, Jama, Mapesela and Beylefeld's social and academic integration (2008: 999) are also part of this model.

Graph 5.1: Morolong Student Attrition Model



The above proposed model postulates that the first year students have certain attributes before they are admitted to university. These are termed pre-entry attributes and, for this study, will be divided into the home environment and the socio-economic status. Secondly, according to the proposed model; once admitted to university, first year students will be in what this study terms the higher education experience which will look at how first year students experience their time at university. After experiencing higher education, students will then come to a decision to persevere with their studies or depart from their studies.

5.4 CONTRIBUTIONS OF THIS INVESTIGATIVE INQUIRY TO THE EXISTING FRAMEWORK OF SCIENTIFIC KNOWLEDGE

Recommendation 2 postulates how the CUT FTE Dashboard Mobile App can be used to keep regular contact with regular contact with student, parents/guardians and sponsors. This study firmly believes that with the support of, for example, their families, the academic performance of FTEs will improve given the fact that once their family know their academic performance is not of the required standard, they can step in and land a helping hand. Having a **mobile app** that will enable the CUT to provide parents/guardians, bursary providers and/or sponsors with regular updates. This app, once developed, can be downloaded from the Play Store on an Android device or the App Store on an iOS device as explained earlier

5.5 LIMITATIONS OF THE STUDY

The small sample size of this study, which led to the results being statistically insignificant, mean that the result cannot be generalised. For example, with reference to the CUT, the same study among students from the Faculty of Engineering and the Faculty of Humanities, respectively, might yield different results. Moreover, the same study has the potential to yield different results if it were to be conducted at a traditional university or a comprehensive university respectively. Lastly, in-depth interviews can also yield very valuable quantitative data.

5.6 RECOMMENDATIONS FOR FUTURE STUDIES

Based on the results of this study, the following areas of further study can be pursued:

- The same study can be replicated at different faculties and universities.
- A study investigating as to why there are FTEs in the 20-23 24-25, 26-27, 28-29 and 30-31 years old age groups, respectively.
- 34% of the respondents walk to the CUT. It will be very informative to find out what is the actual distance here, and if this has a bearing on academic performance.
- The majority of the respondent indicated that they did not register for their first choice of study because that particular programme was full. Thus, the FTEs registered for any programme that would accommodate them. This warrants an investigation as to whether FTEs met the entry requirements of the programmes their registered for.

5.7 CONCLUSION

A review of the whole research project was conducted, literature relevant to this study was consulted, data was collected, data was analysed by a qualified statistician, recommendations resulting from this study were made and areas for further study were also suggested.

The establishment of a System for the Monitoring of Student of Progress (SMSP) at a university of technology was postulated. It was proposed that this system will monitor academic progress and identify at-risk students timeously. Furthermore, the SMSP will go a long way in making the monitoring of student progress a joint effort between the university, parents/guardians and sponsors.

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ANNEXURES

Annexure A Letter to Mr Tumi Morolong re statictics for research study approval

OFFICE OF THE REGISTRAR

21 August 2013

Our Reference: REG/let/43/08/2013

Mr Tumi Morolong
Researcher: Academic Planning
CUT
Bloemfontein
9301

Dear Mr Morolong

PERMISSION TO HAVE ACCESS TO CUT STATISTICS FOR PURPOSE OF RESEARCH STUDY ON THE CUT CAMPUS

Permission is hereby granted for you to access CUT statistics for purpose of your research study on the CUT Campus on your study which deals with high attrition rates among first year students. The understanding is that this data shall not be used for any purpose other than for research on the said topic.

By copy of this letter Mr Anele Magwentshu is hereby authorized to release the data to you for purpose of your research study.

Yours sincerely

PROF AB NGOWI
ACTING REGISTRAR

cc: Mr Anele Magwentshu

Private Bag X20539 • Bloemfontein • SOUTH AFRICA • 9300 • Tel: +27 51-507 3150/1 • Fax: +27 51-507 3734
E-mail: mmoss@cut.ac.za • Website: www.cut.ac.za

Annexure B Mr IP Morolong Ethical Clearance Certificate

Central University of Technology, Free State

ETHICAL CLEARANCE: CUT

RESEARCH ETHICS APPROVAL

Date: 16 November 2018

1.1.1 This is to confirm that ethical clearance has been provided by the Faculty Research and Innovation Committee in view of the CUT Research Ethics and Integrity Framework, 2016 with reference number **[D. FRIC 17/16/2]**

Applicant's Name	Mr Morolong,I.P
Student number	20102321
Supervisor Name for Student Project (where applicable)	Prof WN Setlalentoa
Level of Qualification for Student Project (where applicable)	D.Ed
Tittle of research project	Attrition among first year university of technology students: a study of first year Somatology and Human Resources Management students at the Central University of Technology, Bloemfontein

The following special conditions were set:

x	Ethical measures as outlined in the proposal and which have been endorsed by the Faculty Research and Innovation Committee have to be adhered to.

We wish you success with your research project.

Regards

Prof JW Badenhorst
(Ethics committee representative: Research with humans)

Annexure C Questionnaire for sotl and pilot study

QUESTIONNAIRE: CAUSES OF ATTRITION (DROPPING OUT OF STUDIES) AMONG FIRST YEAR STUDENTS: HUMAN RESOURCES MANAGEMENT AND SOMATOLOGY

Instructions:
1. Read through questions and statements carefully.
2. Please make a cross (x) in the appropriate box representing appropriate responses.
3. At the end of the questionnaire, space has been provided for general suggestions/ **REMARKS** or comments. Please make use thereof.
4. Your responses will remain strictly **CONFIDENTIAL**. Your identity will remain **ANONYMOUS**, please **DO NOT** write your name or the name of your school.

QUESTIONNAIRE: CAUSES OF ATTRITION (DROPPING OUT OF STUDIES) AMONG FIRST TIME ENTERING STUDENTS: HUMAN RESOURCES MANAGEMENT AND SOMATOLOGY						
1. BIOGRAPHICAL INFORMATION						
1.1. Gender	**Please tick one box with an X**					
	Male	Female	Lesbian	Gay	Transgender	Other (please specify)
1.2. Age						

1.3. Home Language	**Please tick one box with an X**	
	Afrikaans	
	English	
	isiNdebele	
	isiXhosa	
	isiZulu	
	Sesotho sa Leboa	
	Sesotho	
	Setswana	
	siSwati	
	Tshivenda	
	Xitsonga	
	Other (please specify):	

1.4. Are you a South African citizen	**Please tick one box with an X**		
		YES	**NO**
Other (please specify):			

1.5. Name of place of birth	**Please tick one box with an X**	
	Country	
	Province/Sate	
	City/Town	

2. YOUR HOME ENVIRONMENT		
2.1 Are you living with	**Please tick one box with an X**	
	Mother	
	Father	
	Brother/s	
	Sister/s	
	Stepmother	
	Stepfather	
	Spouse	
	Relatives	
	Your child only	
	Your children only	
	Friend/s	
	Other (please specify):	

2.2 Are the following members of your family deceased	**Please tick one box with an X**	**YES**	**NO**
	Mother		
	Father		
	Brother/s		
	Sister/s		
	Stepmother		
	Stepfather		
	Spouse		
	Relatives		
	Your child only		
	Your children only		
	Friend/s		
	Other (please specify):		

2.3 Are your parents/guardians	**Please tick one box with an X**	
	Employed	
	Unemployed	
	Other (please specify):	

2.4 At home, do you have	**Please tick one box with an X**	
	Electricity	
	Internet connection	
	Cell phone	
	Fridge	
	Other (please specify):	

2.5 At home, do you stay in a	**Please tick one box with an X**	
	House	
	Flat	
	RDP house	
	Other (please specify):	
2.6 Do you travel to the CUT by	**Please tick one box with an X**	
	Private car	
	Bus	
	Taxi	
	Bicycle	
	Walking	
	Other (please specify):	
2.7 How many times do you eat per day	**Please tick one box with an X**	
	Once	
	Twice	
	Thrice	
	Other (please specify):	
2.8. Did you do your matric at a	**Please tick one box with an X**	
	Public school	
	Private school	
	Private TVET/FET college	
	Public TVET/FET college	
	Other (please specify):	
3. UNIVERSITY ENVIRONMENT		
3.1 From your experience how would you describe your neighbourhood (where you are staying while registered at CUT, Bloemfontein	**Please tick one box with an X**	
	Safe	
	Relatively safe	
	Quiet	
	Noisy	
	Relatively unsafe	
	Unsafe	
	Other (please specify):	
3.2 How did you come to know about the CUT	**Please tick one box with an X**	
	From family members	
	From friends	
	From teachers at my previous institution	
	From an advertisement on radio, television, newspaper, etc	
	From visit by CUT personnel to my previous institution	

	Other (please specify):	
3.3 On your first encounter with CUT staff, did you find them to be	**Please tick one box with an X**	
	Very helpful	
	Somewhat helpful	
	Helpful	
	Somewhat not helpful	
	Extremely not helpful	
	Other (please specify):	
3.4 What is your overall impression of the CUT so far	**Please tick one box with an X**	
	Very good	
	Good	
	Undecided	
	Not good	
	Extremely not good	
	Other (please specify):	
3.5 What is your overall impression of the CUT so far	**Please tick one box with an X**	
	Very good	
	Good	
	Undecided	
	Not good	
	Extremely not good	
	Other (please specify):	
3.5 Given your overall impression overall of the CUT so far will recommend CUT to family and friends	**Please tick one box with an X**	
	Definitely YES	
	YES	
	Not really	
	No	
	Definitely no	
	Other (please specify):	

3.6 Are you aware of the listed CUT Student Support Services	**Please tick one box with an X**	
	e-Learning and Educational Technology	
	Centre for Work-Integrated Learning and Skills Development	
	Student Services	
	Residence Life	
	Student Life	
	Student Development and Governance	
	Wellness Centre	
	Library and Information Services (LIS)	
	Operational Sport	

3.7 Have you ever made use of CUT Student Support Services	**Please tick one box with an X**	
	YES	**NO**

4. COURSE/RPOGRAMME REGISTERD FOR

4.1 Is the programme you registered for at the CUT your first choice of study			
	Please tick one box with an X	**YES**	**NO**

4.2 If at no at 4.1, you indicated that you did not register for my first choice of study, is it because	The programme was full?	
	CUT staff advised me so?	
	My family advised me so?	
	My friend/s advised me so?	
	It was the only programme that could register for?	
	Other (please specify):	

4.3 Next year are you	**Please tick one box with an X**	
	Continuing with the programme you are registered for?	
	Registering for another programme?	
	Other (please specify):	

4.4 Given a chance now will you	**Please tick one box with an X**	
	Continue with the programme you are registered for?	
	Register for another programme?	

GENERAL SUGGESTIONS/REMARKS OR COMMENTS: WHAT OTHER FACTORS HAVE A NEGATIVE IMPACT YOUR ACADEMIC PERFORMANCE AND PROGRESS?

THANK YOU VERY MUCH, YOUR COOPERATION IS GREATLY APPRECIATED

Annexure D Questionnaire for Thesis

QUESTIONNAIRE: CAUSES OF ATTRITION (DROPPING OUT OF STUDIES) AMONG FIRST YEAR STUDENTS: HUMAN RESOURCES MANAGEMENT AND SOMATOLOGY

Instructions:
1. Read through questions and statements carefully.
2. Please make a cross (x) in the appropriate box representing appropriate responses.
3. At the end of the questionnaire, space has been provided for general suggestions/ **REMARKS** or comments. Please make use thereof.
4. Your responses will remain strictly **CONFIDENTIAL**. Your identity will remain **ANONYMOUS**, please **DO NOT** write your name or the name of your school.

QUESTIONNAIRE: CAUSES OF ATTRITION (DROPPING OUT OF STUDIES) AMONG FIRST TIME ENTERING STUDENTS: HUMAN RESOURCES MANAGEMENT AND SOMATOLOGY

1. BIOGRAPHICAL INFORMATION

1.1. Gender	**Please tick one box with an X**					
	Male	Female	Lesbian	Gay	Transgender	Other (please specify)

1.2. Age	18-19	20-23	24-25	26-27	28-29	30-31	Other (please specify)
Please tick 1 box							

1.3. Home language	**Please tick one box with an X**	
	Afrikaans	
	English	
	isiNdebele	
	isiXhosa	
	isiZulu	
	Sesotho sa Leboa	
	Sesotho	
	Setswana	
	siSwati	
	Tshivenda	
	Xitsonga	
	Other (please specify):	

1.4. Are you a South African citizen?	Please tick one box with an X	
	Yes	No
	Please specify below	
	Country	
	Province/Sate	

	City/Town	

1. YOUR HOME ENVIRONMENT

2.1 Are you living with	Please tick one box with an X	
	Mother	
	Father	
	Brother/s	
	Sister/s	
	Stepmother	
	Stepfather	
	Spouse	
	Relatives	
	Your child only	
	Your children only	
	Friend/s	
	Other (please specify):	

2.2 Are the following members of your family deceased	Please tick one box with an X	Yes	No
	Mother		
	Father		
	Brother/s		
	Sister/s		
	Stepmother		
	Stepfather		
	Spouse		
	Relatives		
	Your child only		
	Your children only		
	Friend/s		
	Other (please specify):		

2.3 Are your parents/guardians	Please tick one box with an X	
	Employed	
	Unemployed	
	Other (please specify):	

2.4 At home, do you have	Please tick one box with an X	
	Electricity	
	Internet connection	
	Cell phone	
	Fridge	
	Other (please specify):	

2.5 At home, do you stay in a	Please tick one box with an X	
	House	
	Flat	
	RDP house	
	Other (please specify):	

2.6 Do you travel to the CUT by	Please tick one box with an X	
	Private car	
	Bus	
	Taxi	
	Bicycle	
	Walking	
	Other (please specify):	

2.7 How many times do you eat per day	Please tick one box with an X	
	Once	
	Twice	
	Thrice	
	Other (please specify):	

2.8. Did you do your matric at a	Please tick one box with an X	
	Public school	
	Private school	
	Private TVET/FET college	
	Public TVET/FET college	
	Other (please specify):	

2.9 From your experience how would you describe your neighbourhood (where you are staying while registered at CUT, Bloemfontein)	Please tick one box with an X	
	Safe	
	Relatively safe	
	Undecided	
	Relatively unsafe	
	Unsafe	

2.10 From your experience how would you describe your neighbourhood (where you are staying while registered at CUT, Bloemfontein)	Please tick one box with an X	
	Noisy	
	Relatively noisy	
	Undecided	
	Relatively quiet	
	Quiet	

2. UNIVERSITY ENVIRONMENT

3.1 How did you come to know about the CUT?	Please tick one box with an X	
	From family members	
	From friends	
	From teachers at my previous institution	
	From an advertisement on radio, television, newspaper, etc.	
	From visit by CUT personnel to my previous institution	
	Other (please specify):	

3.2 On your first encounter with CUT staff, did you find them to be	Please tick one box with an X	
	Very helpful	
	Somewhat helpful	
	Helpful	
	Somewhat not helpful	
	Extremely not helpful	
	Other (please specify):	

3.3 What is your overall impression of the CUT so far?	Please tick one box with an X	
	Very good	
	Good	
	Undecided	
	Not good	
	Extremely not good	
	Other (please specify):	

3.4 Given your overall impression overall of the CUT so far will recommend CUT to family and friends?	Please tick one box with an X	
	Definitely YES	
	YES	
	Not really	
	No	
	Definitely no	
	Other (please specify):	

3.5 Are you aware of the listed CUT Student Support Services	Please tick one box with an X	
	Yes	No
e-Learning and Educational Technology		
Centre for Work-Integrated Learning and		
Skills Development		
Student Services		
Residence Life		
Student Life		
Student Development and Governance		
Wellness Centre		
Library and Information Services (LIS)		
Operational Sport		

3.6 Have you ever made use of CUT Student Support Services	Please tick one box with an X	
	Yes	No
e-Learning and Educational Technology		
Skills Development		
Student Services		
Residence Life		
Student Life		
Student Development and Governance		
Wellness Centre		
Library and Information Services (LIS)		

3.7 How can you describe the teaching and learning environment at the CUT?	Please tick one box with an X	Yes	No
	The teaching staff are always on time for classes		
	The teaching staff communicate cancellation of classes on time		
	The teaching staff have consultation hours		
	The teaching staff are available during time set for consultation hours		

3.8 How can you describe the teaching and learning environment at the CUT?	Please tick one box with an X	Strongly agree	Agee	Undecided	Disagree	Strongly disagree
	The teaching staff provide feedback on time after e.g. tests, assignments, etc. (e.g. within 1 week at the most)					
	There are enough resources e.g. in the Library, Student Centre, etc., to create an environment conducive to teaching and learning					
	The support staff (e.g. in the Faculty, at the Registrar's office, at Finance, etc.) are cordial and approachable					
	The teaching staff are approachable					
	The teaching staff are friendly					
	The teaching staff are always willing to help when assistance is sought					
	The teaching staff made me aware of CUT Support Service					
	Teaching staff suggested successful methods of studying					

3.9 Still with the teaching and learning environment at the CUT, how would you rate your interaction with CUT staff?	Please tick one box with an X	Very good	Good	Undecided	Not good	Definitely not good
	In class					
	The support provided by tutors is helpful					
	The Mentorship Programme and my mentor were helpful					
	Teaching staff told me what to expect in studying at university					

3.10 Still with the teaching and learning environment at the CUT, how would you rate your interaction with your fellow students at the CUT?	Please tick one box with an X	Very good	Good	Undecided	Not good	Definitely not good
	In between classes					
	In your study group					
	At the hostel/home (where you are staying)					

3.11 Have you ever before considered, or are you currently considering, dropping out of the university?	Please tick one box with an X	
	I have never before considered dropping out of university	
	I have considered dropping out of university before, but have decided against it	
	I am currently considering dropping out of university	
	I am undecided about dropping out of university or continuing with my studies	
	I have decided that I am going to drop out of university	

3. COURSE/RPOGRAMME REGISTERD FOR

4.1 Is the programme you registered for at the CUT your first choice of study	Please tick one box with an X	Yes	No

4.3 If at no at 4.1, you indicated that you did not register for my first choice of study, is it because	Please tick one box with an X	Yes	No
	The programme was full?		
	CUT staff advised me so?		
	My family advised me so?		

4.3 Next year are you	Please tick one box with an X	Yes	No
	Continuing with the programme you are registered for?		
	Registering for another programme?		
	Other (please specify):		

4.4 Given a chance now will you	Please tick one box with an X	Yes	No
	Continuing with the programme you are registered for?		
	Registering for another programme?		
	Other (please specify):		

GENERAL SUGGESTIONS/REMARKS OR COMMENTS: WHAT OTHER FACTORS HAVE A NEGATIVE IMPACT YOUR ACADEMIC PERFORMANCE AND PROGRESS?

THANK YOU VERY MUCH, YOUR COOPERATION IS GREATLY APPRECIATED

Annexure E Bursary Application Confirmation Letter

RESOURCES AND OPERATIONS

Central University of
Technology, Free State

Memorandum

To:	Mrs A Kleinhans	Senior Admin. Officer - Enrolment Compliance
cc:	Mr IP Morolong	Academic Planning
From:	Ms ML Letsoara	Deputy Director: HR Specialist Services
Date:	2016-04-12	
Priority:	Routine	
Deadline:	n/a	
Our Ref:		**Your Ref:**
Subject:	**BURSARY APPLICATION**	

In terms of Policy B/ 12.3 it is hereby confirmed that the following student qualifies for exemption &om payment of tuition fees for his/ her studies at this Institution.

Particulars of Member of Staff:

Initials and Surname	Mr IP Morolong
Staff number	15206
Date Employed	April 2011
Student number	20102321
Division/ Section/ Unit	Academic Planning
Qualification	D.Tech: Education: Research
Year	2016

Kind regards

MPHO LETSOARA

20 Pres. Brand Street, Bloemfontein, South Africa, 9301 • **www.cut.ac.za** • Private Bag X20539, Bloemfontein, South Africa, 9300

Annexure F Mr IP Morolong DHET Award Letter

RESEARCH DEVELOPMENT & POSTGRADUATE STUDIES

15 March 2018

Mr IP Morolong
Institutional Planning/Quality
BLOEMFONTEIN
E-mail: imorolong@cut.ac.za

Dear Mr Morolong

AWARD FOR POSTGRADUATE STUDIES

1. We are pleased to inform you that the University Research and Innovation Committee of the Central University of Technology, Free State has awarded you a grant for 2018 to the amount of R30 OOO towards the completion of your D-studies. This grant is from the DHET UCDG R & D Grant (2018).

2. The grant must be expensed based on the budget in your application. Please note that according to the grant scheme no conference attendance or tuition fees can be funded from this grant.

3. The expenditure of the grant will be reviewed by end July 2018. The grant must be expensed by end October2018 since no funding can be carried forward. Please note that all unspent funds will be forfeited the end of December 2018.

4. The release of your grant is conditional upon the acceptance of the grant and its conditions and your registration as a student. This letter must be returned within one month from the date when this letter was issued. Failure to do so will result in the cancellation of the award.

5. Your grant will be allocated as follows:

(a)	Project expenses	R30 OOO
	Total of Grant	R30 OOO

6. The amount specified under (a) above will remain within the centralised DHET account, as it will be managed by Deputy Director: Research Development and Postgraduate Studies in collaboration with your Graduate Supervisor and Assistant Dean: Research Innovation and Engagement or line manager if you are not registered with the CUT. Please note that you have to manage the project expenses in consultation with your supervisor. Should you be enrolled at another university, then the grant must be managed in collaboration with your Assistant Dean: RIE or line manager. Should you over expense on your grant, then the money will be reimbursed by you.

We wish you success with your project.

MS KEM SEMPE
DEPUTY DIRECTOR: RESEARCH DEVELOPMENT AND POSTGRADUATE STUDIES

cc: Mr I Mokhele

Accept conditions of Grant

Name:

Signature:
Staff number:

Date:

Annexure G Quantemna Quotation for statistical analysis

QUANTEMNA

Registration: Quantemna 2015/325655/07

082 412 4959
e info@quantemna.co.za
w www.quantemna.co.za
www.facebook.com/quantemna
@quantemna2

FOR ATTENTION:

Itumeleng Morolong

QUOTATION

QUOTE: IM_2018_01

DATE: 03/07/2018

DESCRIPTION OF WORK TO BE COMPLETED	HOURS OR DAYS	AMOUNT PER HOUR OR PER DAY	AMOUNT
Data capturing (estimated amount – final amount will depend on number of questionnaires distributed)			R500.00
Assistance with questionnaire design and scale selection	8 hours	R330.00	R2 640.00
Descriptive statistical analysis	5 hours	R165.00	R825.00
Advanced statistical analysis	8 hours	R330.00	R2 640.00
		TOTAL R	**R6 505.00**

TERMS AND CONDITIONS

1. This is a quotation only and final invoiced amount will be dependent on the actual hours spent on the project. Quantemna will notify the client timeously in the event that additional hours are needed.
2. Terms of business require a non-refundable deposit of 50% on signed confirmation or acceptance of the quote.
3. Work will only be started on receipt of a signed accepted quotation (and signed acknowledgement of debt) and a deposit of 50% has been paid.
4. Proof of payment must be e-mailed to info@quantemna.co.za
5. This quote is valid for a period of 7 days and thereafter subject to confirmation.
6. The outstanding balance must be paid within 30 days after the work has been completed.

BANKING DETAILS

Quantemna
Standard Bank
Branch Code: 055534
Account Number: 421378840
Type of account: Cheque

DIRECT ALL ENQUIRIES TO

Dr Nadia Fouché
t: +27 82 412 4959
e: info@quantemna.co.za

QUANT
$(mc)^2$ m.ηα

Annexure H: Turnitin Report

ORIGINALITY REPORT

6%	3%	1%	4%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

Exclude quotes	Off	Exclude matches	Off
Exclude bibliography	Off		