AN INVESTIGATION OF THE FACTORS THAT INFLUENCE ACADEMIC PERFORMANCE OF STUDENTS REGISTERED FOR FINACIAL MANAGEMENT AT DURBAN UNIVERSITY OF TECHNOLOGY (DUT)

by

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ABSTRACT

The Durban University of Technology (DUT), whose vision is to be a centre of excellence in the heart of Africa, is keen on quality assurance and the maintenance of standards. However, the academic deans and quality assurance committee have noted that while some students perform highly, others do not perform well, raising concerns about those who do not perform well. This is particularly applicable in Financial Management Modules because should this poor performance go unchecked, the university may lose its reputation, which may result in a loss of confidence in DUT graduates amongst outside organisations. The study aimed at investigating the challenges encountered by students enrolled for Financial Management (FM) in order to establish strategies that can be adopted to improve performance.

The research tool used was a questionnaire, which was then examined by quantitative methods. The sample consisted of 160 students enrolled in Financial Management courses. In order to preserve anonymity, their actual marks could not be used in the study, hence they were asked to gauge their own performance both in their Matriculation and in DUT examinations. This was then processed using the category data of their bio-characteristics (gender, age, type of school, mode of study) measured against their opinions of different modes of study used in FM courses at DUT.

Some of the most important findings from the study results were that parental involvement with schoolwork resulted in a better Matric result, and that more of the third-year DUT students claimed this than the 4th years, indicating that parents are increasingly getting involved. At DUT, proportionately more 4th years claimed lecturers as being most helpful, whereas for 3rd years, it was student-run groups. A notable 62.2 % of all respondents claimed that teaching methods in Financial Management should be revised. There was also a worrying number of non-responses of up to 10%, for some of the teaching and learning methods, indicating that some registered students are not able to make full use of what is on offer. Lastly, another finding worth mentioning is the relationship between understanding terminology by respondents and the type of school they attended. Results showed that most of the respondents from rural and township schools had difficulty understanding terminology as compared to those from private schools.

DECLARATION

This work has not been previously accepted in substance for any degree and is not being concurrently submitted in candidature for any degree.

Signed:

Date: 15 May 2022

This submission is the result of my own independent work / investigation, except where otherwise stated. Other sources are acknowledged giving explicit references. A bibliography is appended.

Signed:

Date: 15 May 2022

I hereby give consent for my work to be available for photocopying and for inter-library loan, and for the title and summary to be made available to outside organisations and future students.

Signed:

Date: 15 May 2022

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DEDICATION

This exposition is committed to my late guardians, Msithwa "Genius" Khumalo and Sikhameli Mirriam Khumalo, my loved ones.

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ABBREVIATIONS AND ACRONYMS

DHET	Department of Higher Education and Training
DoE	Department of Education
DUT	Durban University of Technology
FM	Financial Management
HET	Higher Education and Training
KZN	KwaZulu-Natal
LOLT	Language of Learning and Teaching
MI	Management Information
NSC	National Senior Certificate
SA	South Africa
SAQA	South African Qualifications Authority
SPSS	Statistical Package for the Social Sciences
UFS	University of Free State
UKZN	University of KwaZulu-Natal
USA	United States of America
HELTASA	Higher Education Learning and Teaching Association of Southern Africa

CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

This chapter presents the background to the study, outlining the research problem, as well as the aims, research questions and objectives of the study. In addition, an examination of the literature reviewed and a brief explanation of the research methodology used for the study are highlighted, while a brief chapter outline is also provided.

1.2 BACKGROUND TO THE RESEARCH

Various studies have been conducted in the area of students' achievement, identifying and analysing the number of factors that affect academic performance (Fernandes, Delabie and Fernández, 2019; Millea, Wills, Anastasia, *et al*., 2018; Adams and Blair 2019; Hellas, Ihantola, Petersen, *et al*., 2018). Students' academic gain and learning performance are affected by numerous factors, including gender, age, teaching facilities and students' schooling, socio-economic status, and medium of instructions in schools, as well as daily study hours and accommodation (El Ansari, Salam and Suominem, 2020).

Access to higher education is one matter and success to graduation is another. Colleges and universities have no value without students as students are the most essential asset for any educational institute. Mushtaq and Khan (2012) reason that the social and economic development of the country is directly linked with student academic performance. Students' performance (academic achievement) plays an important role in producing the best quality graduates who will become great leaders and manpower for the country, thus responsible for the country's economic and social development (Double, Niharika and Supriya, 2011).

Mlambo (2011) notes that high failure rates at universities lead to unacceptable levels of reduced graduate throughput. It is therefore imperative that a diagnostic study is carried out to identify the factors associated with performance and the corrective measures instituted. Furthermore, there is fierce growing competitiveness in the global marketplace as a whole (Eze and Inegbedion, 2015). This makes it crucial that universities such as DUT offer the best possible educational experience for students, thus facilitating high academic performance. This ensures they do not lose their competitive value when ranked amongst other universities.

Today's technological advancement has led to the consideration of education as a stepping stone for all mankind. It plays a pivotal role in the development of human capital, as cited by Farooq, Chaudhry, Shafiq, and Berhanu (2011). The acquisition of knowledge ensures the improvement of productivity and the quality of life. Therefore, the quality of students' performance becomes a priority in any academic field.

1.3 RESEARCH PROBLEM

The academic Dean of the Faculty of Accounting and Informatics and the Head of Department (HOD) of the Department of Finance and Information Management at DUT have noted that there are still some students who do not do well, particularly in Financial Management (FM) (DUT, 2021). The university may not be able to become the preferreduniversity due to the poor performance presented by some students. As a FM tutor, the researcher realised that the department is facing a challenge of students failing the course and failing to graduate at the expected time. Students from first to third year are repeating FM and the performance is below the university standard (Singh, 2020). The FM department aims to achieve the set university graduate attributes of students graduating within the expected time-frame with good grades. However, students' performance has to improve in order to raise the university standard. The department is striving to create the best image about DUT in the minds of matric students. Tutorials have been implemented, but students are still not

performing well as per DUT standards.

It seems as if DUT students have many responsibilities apart from their studies as some are working full-time whilst being part-time students. Part-time students seem to be exhausted from working all day when they attend lectures. This reduces their concentration during lectures, yet FM requires much attention. Moreover, some students just lack commitment and motivation. Moreover, some students seem not to have a strong numerical background as they are coming from programmes such as Office Management. Mlambo (2011) notes that high failure rates at universities leadto unacceptable levels of reduced graduate throughput. It is therefore imperative that a diagnostic study be carried out to identify factors associated with performance, thereby instituting corrective measures.

1.4 AIM OF THE STUDY

The main aim of this study is to investigate the factors affecting FM students' academic performance.

1.5 RESEARCH QUESTIONS

The research questions imply that the researcher investigated two "objective" factors concerning the students and factors concerning institutional provision. However, for both these factors, the researcher had to investigate them subjectively via the students' reports of what they experience. Having taken this into consideration, the research questions of this study are:

- What factors affect FM students' academic performance?
- How is student performance affected by cultural and socio-economic factors?
- What organisational factors affect FM students' performance?
- What strategies can be implemented to improve academic performance in FM?

1.6 OBJECTIVES OF THE STUDY

The objectives of this study are:

- To explore the important factors that affect the academic performance of students;
- To establish the socio-economic and cultural factors affecting FM students' performance;
- To investigate organisational factors that affect FM students' performance; and
- To establish strategies that can be adopted for the improvement of student performance in FM.

1.7 OUTLINE OF THESIS

Chapter 1: Introduction

This chapter provided a background and overview of the study; addressed the problem statement, research objectives and a summary of the related literature; and summarized the research methodology and approach.

Chapter 2: Literature Review

Chapter Two reviews extant literature and describes the theoretical framework of the research.

Chapter 3: Research Methodology

This chapter focuses on the research design, research approach, target population, sample size and selection, sampling technique, instrument design and data analysis and procedures.

Chapter 4: Analysis of data and discussion of result

Chapter Four presents an analysis of the data and a detailed discussion of the findings.

Chapter 5: Conclusions and Recommendations

Based on the findings of the study, conclusions and recommendations will be drawn in this final chapter.

1.8 CONCLUSION

In this chapter, an overview of the study was presented. The background to the study, the problem statement and the aim and objectives of the study were discussed. In addition, the research site and the scope of the study were outlined. In the next chapter, the factors that influence the academic performance of students registered for Financial Management at DUT are discussed in detail.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

The aim of this chapter is to discuss literature on the nature of education within SA, along with the impact of apartheid on South African education. This is done in order to understand the context in which this current study falls and where it originated from. The review introduces the discussion with an examination of the socio-cultural factors that affect students, centred on poverty as a barrier to academic success and the influence of family on academic achievement. It also involves discussing learning deficits that students acquire during their primary and secondary school stages, which are brought about by inadequate teacher content knowledge, which is also discussed in this review.

This review also unpacks student wellbeing in line with food security and housing as these also have the ability to lead to academic failure and attrition. Additionally, a discussion follows on institutional and student characteristics that affect academic performance. In conclusion, the review also focuses on resilience in order to understand how some students are academically successful in the face of all of these challenges (Awan and Blakemore, 2012).

2.2 PRE-UNIVERSITY FACTORS

2.2.1 Apartheid and its implications for language development

Heugh (1999) uses a historical approach in order to unpack the contested nature of language within the SA and African context at large. The author identifies that SA at large, has been gripped by educational failures, which can be traced as far back as the 1976 Soweto uprisings where students protested the use of Afrikaans as a medium of instruction for education.

Education for African language-speaking students was based on the principles of the Bantu Education Act of 1954 and included the following:

i. The primary school curriculum was used to prepare black South Africans for a subservient role as compared to the more academic curriculum that was used in Coloured, White and Indian schools;
ii. The primary school curriculum was to be mostly in the mother tongue;
iii. The introduction of both Afrikaans and English as media of instruction in high school; and
iv. A curriculum that was “similar” to the school curriculum in white schools, which was available to the few that had not dropped out in high school (Heugh, 1999).

African people resented Bantu education because they saw the African language policy as a barrier to power, especially the use of African languages in primary school (Heugh, 1999). This was exacerbated by the implementation of Afrikaans as the mode of communication in all aspects of high school, including teaching and administration. Heugh (1999) points out that despite the end of the Apartheid era and the ushering in of the new democratic government, language within historically black disadvantaged schools is a critical barrier to power.

The majority of subjects within these schools are taught in mother tongue languages (Spaull, 2013a). This then creates university students that are incapable of interacting efficiently with lecturers and course material because they are not used to learning and studying in English. The following section highlights education after apartheid.

2.2.2 The education crisis post-Apartheid

Spaull (2013b)’s work “South Africa’s education crisis: the quality of education in South Africa from 1994-2011” aims to provide a critical review on the quality of education in SA from 1994 to 2011 in order to comment on the state of the education system within the country. According to Ross, Dolata, Ikeda, Zuze, Murimba and Quality (2005), in

1994, all the educational systems linked with apartheid were eliminated and new systems were introduced. A new historical era emerged in SA between the years 1994 to 2011. However, the government, instead of evaluating the existing systems to build on what was effective, abolished some basic education principles. An example of what was lost in the 1990s with the transition is the English lessons on radio – which were a great help in improving teachers' ability with oral English. That disappeared because of a misunderstanding of their usefulness (Malada, 2010).

According to Ross, *et al.* (2005), in 1994, the new democracy of SA abolished the racially defined set up in the education system to create the single system education process. The government appointed many seniors in high positions based on a reward for taking part in the liberation struggle. This proved to be ineffective because education refers to a highly specialised field which can never be served effectively by just a political appointee (Malada, 2010). In addition, when the new democracy emerged in the 1990s in SA, the new curriculum 2005 was also put into place with Blade Nzimande believing and supporting that the adoption of the new curriculum helped in changing the society and addressing racial discrimination (Taylor, 2011). In addition, Lawack (2009) stated that the outcomes-based system has been already proven ineffective when it failed dismally in other First World countries, which makes adopting such a system the wrong move for SA.

Moreover, with all the features of Curriculum 2005 having been assessed, many implementation problems were discovered. For instance, some of the problems include a lack of co-ordination and management, inadequate capacity of staff and capital, inadequate training programmes on the new curriculum for teachers and poor curriculum policy (Altinyelken, 2010).

The report by Spaull (2013b) points out that SA has one of the worst education systems and that this has implications for not only individuals, but the economy as well. It establishes that most SA pupils are incapable of reading, writing and computing at the appropriate grade levels.

The conclusions to this review are important because they highlight that (Spaull, 2013b):

a. Regardless of whatever grade is assessed, the majority of children are performing significantly below the curriculum. A significant number of youths fail to acquire functional literacy and numeracy.
b. The educational inequalities can be seen over several related dimensions. These are: wealth school locations, language and province. In most cases, the difference between top and bottom performing tier schools is between 2-4 grades lower.
c. The learning challenges of pupils that are not addressed significantly implicate them not only in further grades but in high school as well, especially in subjects like Mathematics and Science. There is a need for early intervention in order to address this challenge.
d. The National Senior Certificate pass rate is a flawed measure of the country's education system. This is because it only reflects the achievements of 50 percent of the best performing and does not take subject choices and combinations into consideration, or the fact that students are opting for easier subjects such as Maths Literacy and not Mathematics.
e. There are large differences in pupil retention rates to matriculation between provinces.
f. SA teachers lack skills and qualifications, being amongst some of the least knowledgeable in the world. This is especially so in subjects such as Mathematics, where teachers are unable to properly address the questions posed to them by pupils.
g. Annual National Assessments, due to irregular test formulation, marking and moderation, cannot be used as reliable indicators of progress.
h. The poor-quality education afforded to school pupils has dire consequences for the economy. Furthermore, their economic prospects are limited. In addition, passing matric does not always guarantee a transition into tertiary education because these opportunities are only afforded to a minority.

This review is of importance to the current study because in outlining the underlying context of the state of the South African education sector, it draws into context that pupils' failing is not only affected by personal temperament but also by other institutions and individuals that the pupils cannot directly impact or address. For the purpose of this study, it would be important to understand the role that the quality of both primary and high school education plays in students either passing or failing their FM courses (Spaull, 2013b). Factors that affect the academic performance are discussed below.

2.3 FACTORS WITHIN THE UNIVERSITY

The following section presents the barriers to academic success.

2.3.1 Poverty as a barrier to academic success

According to Ford (2011), prolonged exposure to poverty has a negative effect on students' academic performance. The author states that the most damaging effects of poverty are mostly seen amongst students that live in deprived environments for the greater part of their lives. Children from these environments have a higher probability of having learning disabilities and developmental problems, thus limiting their academic performance. Families living in poverty face both direct and indirect consequences of their economic status (Ford, 2011). These include inadequate/ lack of the necessary resources and exposure to various stressors associated with poverty. This can affect students emotionally, physically and psychologically, thus leading to poor academic performance.

Poverty within the SA context is a pervasive barrier to academic success, especially in institutions of higher learning. Letseka, Breier and Visser (2009) unpack poverty within the SA context by breaking it down into five categories, namely poverty proper, physical or social isolation (the circumstance of you being alone and physically cut off from people – where you live, or in periods when you have time-out in various situations); vulnerability to crisis (capable of being physically or emotionally wounded or hurt); and the risk of becoming poorer, as well as powerlessness (lack of ability, influence or

power) within existing structures (Letseka, Breier and Visser, 2009). *Poverty proper* according to the authors is characterised by a lack of sufficient income and assets. This is the type of poverty that predominantly affects academic performance. Students experiencing poverty proper are constantly exposed to stressors that can adversely affect their academic life. These students do not have sufficient resources to use for their studies. Unlike other forms, this impacts directly on them as students. According to Maslow's Hierarchy of Needs, the most basic level is physiological. The poorest in South Africa lack enough money for food, shelter and access to water and lights (for night studies). Some students actually suffer from this lowest level of need (e.g., food) while at university.

2.3.2 Influence of family on academic achievement

The family unit is integral to academic success because it is in this system that children are first exposed to learning through socialisation (Ford, 2011). The type of home environment in which a child is raised influences the type of adult the child will be. For example, Mbugua, Kibet, Muthaa, and Nkonke (2012) note a positive correlation between the academic performance of students and their parents' level of education. Children from poor backgrounds, as well as those whose parents do not have tertiary qualifications, are likely to struggle and drop out of school (Mbugua *et al.,* 2012). In addition, Mbugua, *et al.* (2012) attribute this to a lack of positive role models in children's lives.

The family is a place where needs are fulfilled through concrete and tangible ways (Mamhute, 2011). Furthermore, Williams (2007) noted that the participants in her study highlighted the importance of family support to assist them along the journey. Support comes in various forms, such as the temperament of their children, "help" from their spouses or partners and help from other family members. Support from one's spouse is a source of power for many women, inasmuch as they may add onto the workload, encouragement from sposes can be used as an instrument of success in order to succeed in one's educational endeavours (Lynch, 2008). The lack

of this type of supportcould be a hindrance to the success of married students.

2.3.3 Inadequate educational experience prior to university entry

One cannot discuss academic success and failure without taking into consideration the state of the SA education system and its implications for students enrolled in institutions of higher learning. Spaull (2013b) in “South Africa’s education crisis: the quality of education in South Africa from 1994-2011” provides a critical review on the quality of education in SA from 1994 to 2011, ranking the SA education system amongst the worst in the world. Furthermore, the report emphasises that the poor quality of education in both primary and high school severely impedes pupils’ ability to pursue further training and education. As a result, skills deficits amongst those within the population of under-performing schools are likely to persist.

Another important aspect that will lead to inadequate educational experience prior to university entry is being taught by teachers who lack sufficient qualifications and skills. Of particular importance, as it relates to the SA education system, is a study by Venkat and Spaull (2015), which showed that SA teachers lack skills and qualifications, being amongst some of the least knowledgeable in the world. This is especially so in subjects such as Mathematics, where teachers were shown to be unable to properly address the questions posed to them by pupils.

In order for one to grasp scientific and mathematical concepts, one has to be taught by teachers who have strong content knowledge (Bansilal, Mkhwanazi and Brijlall, 2014). It is important to note that, on average, the teachers tested in this study acquired 57 percent, with a quarter of the teachers achieving below 39 percent. Furthermore, failure in sections of the assessment that required more cognitive skills brings into question how teachers set exams when they themselves are incapable of solving mathematical equations (Bansilal, Mkhwanazi and Brijlall, 2014).

Some SA students are also not fluent in English due to them being disadvantaged from high school. It has been indicated that when students arrive at university, they are faced with new learning approaches together with new and challenging sets of instruction approaches, which negatively affect their academic performance (Karemera, Reuben and Sillah, 2003). According to Nel and Müller (2010), the knowledge and skills studentsalready possess with regard to the content and the English language are one of the firm indicators of how well these students will learn the new concepts relative to the content. However, it is not easy to predict what students already know without some sort of objective measure. Many First-year students lack rich background knowledge, yet academic background has proved to greatly impact success in tertiary institutions (Karemera, Reuben and Sillah, 2003).

2.3.4 Numeracy problems

Numeracy is the ability to understand and use maths in daily life, at home, work or school (Hunt, 2017). The state of mathematical education in SA is poor. In addition, students acquire learning deficits at an early age that when left untreated, having dire consequences not only for the students but for the economy as well. In a working paper, Spaull (2013a) unpacks the causes of mathematical learning deficits amongst children of school-going age in SA. The author asserts that in order for one to master cognitive skills, learning has to not only take place at an early age but also in a hierarchical manner. The literature points out that the learning difficulties students face throughout their schooling careers are caused by learning deficits acquired during both the pre-foundation and foundation stages of their schooling careers. In this regard, the authors refer to crèche as well as Grades 1-3.

Another challenge that students in South Africa face is that the majority are promoted to a higher grade without actually mastering key concepts, specifically those of Maths and Science in previous grades (Venkat and Spaull, 2015). Moreover, Spaull (2015) offers the example that only 16 percent of Grade 3s in 2007 were performing at a Grade 3 level in Mathematics. This then poses questions for the current research as to

whether universities are accepting students performing at grades significantly lower than they should be into mathematically oriented programmes such as FM.

2.3.5 Illiteracy

Illiteracy is the condition of being unable to read and write (Venkat and Spaull, 2015). As mentioned, in order for one to master cognitive competence in reading and writing, learning has to take place at an early age, which is by Grade 3 in primary school because most subjects are supposed to be taught in English from Grade 4. Mastery of these concepts allows students to further master concepts in Mathematics and Science (Van Der Berg, Taylor, Gustafsson, Spaull and Armstrong, 2011). In a study by Nel and Müller (2010) on "The impact of teachers' limited English proficiency on English second language learners in South Africa", it was highlighted that English second-language students are often deemed at risk of academic exclusion because of the language transition they make once they enter into tertiary institutions. This is because they are expected to learn not only from lectures but also independently through textbooks and assignments. The challenge arises because students are expected to read in order to learn, but they were not adequately equipped during the foundation stages with resources that allowed them to learn to read (Van Der Berg, *et al*., 2011). This in itself could be one of the reasons why FM students are failing to pass their courses.

Teachers, specifically those from historically black backgrounds, are not proficient in the English language (Nel and Müller, 2010). This is exacerbated by a lack of resources such as newspapers, magazines and libraries, as well a lack of opportunity to hear and speak English on the part of the students. Asking questions with regard to English language deficits allows the researcher to establish a connection between socio- cultural factors and academic performance.

2.3.6 Socio-Cultural Factors

'Socio-cultural' is a term related to social and cultural factors, which means common traditions, habits, patterns and beliefs present in a population group (Mbugua, *et al.,* 2012). Cultural constraints negatively impact achievement levels amongst students. In addition, children from insecure environments show emotional problems at school (Mbugua, *et al.,* 2012). Cultural perspectives suggest that many historically under-represented students encounter challenges when they start college, which makes it difficult to take advantage of their resources (Kuh, *et al*., 2006).

According to Nel and Müller (2010), socio-cultural factors play a vital role in students' understanding at a tertiary education level. Many difficulties arise with academic writing skills development as English is an almost foreign language to many students from rural areas. The authors found that socio-cultural attitudes to self-expression and their pedagogical background affect the way in which students perceive learning through the Language of Learning and Teaching (LOLT), which is English in most Black–majority schools and at tertiary level. Depending on the schools attended, and their use (or not) of the LOLT, the transition from high school to tertiary institutions is exceedingly difficult for some students.

In addition, Dominguez-Whitehead (2017) states that students with parents involved in their schoolwork tend to encounter fewer problems and produce better learning performances. Positive parental involvement plays a vital role in every student's development. Moreover, the educational aspirations of students depend on the socio-economic status of a family. According to Bell and Federman (2013), students from the lower class are very preoccupied with their current problems, to the extent that they do not have time to think about the future. These students' concerns are shifted to daily survival and not on how successful they can be in the future. This poor socio-economic status results in a diminishing aspiration in almost all aspects of life, such as education.

2.3.7 Background of Students that enter University

Taderera, Nyikahadzoi, Matamande and Mandimika (2014) note that students in Zimbabwe come from a wide scope of social foundations. These give them distinctive beneficial encounters, instructive freedoms, assumptions and requirements, as well as fluctuated scholastic potential. This makes background an important determinant in a student's performance. Supporting this argument with regard to the background of students, Maphosa and Mudzielwana (2014) also highlight that besides English being the medium of instruction in SA schools, students from disadvantaged backgrounds have not fully grasped the skills of reading, writing and speaking. Language competence is hence regarded as a major factor affecting academic performance.

In addition, Tikka, Kuitunen and Tynys (2000) maintain that education is a key to the progress and development of any nation. Every child deserves proper education. Nonetheless, family background plays a significant role in every child's educational journey. It is very difficult for students from poor family backgrounds to compete with students from high-income family backgrounds, which results in low self-esteem. A low-income family background results in a lack of basic academic amenities and inadequate healthy food supply. Furthermore, insufficient resources will cause students to engage in low-paying general jobs after lectures to supplement parents' efforts. Furthermore, the background of a student also affects the student's ability to communicate in the English language at university, as they have a poor command of English and communicate in a vernacular language at home or even at primary school.

However, a low-income family background can work as a catalyst to a student's academic success, aspiring for a brighter future, as found in the United States of America (USA) by Ford (2011). Students from low-income family backgrounds tend to be very hardworking and utilise their parents' resources to the fullest. Consequently, academic excellence is reached as taking part in any social vices is totally avoided. To conclude, despite all the hard work from students in the USA, a low-income family background brings many disadvantages to any student's educational journey (Ford 2011).

2.3.8 Student wellbeing

The following section will discuss student wellbeing as an important factor towards the attainment of academic success.

2.3.8.1 Food security

In order for a person to be academically successful, they need to have their physiological and nutritional needs satisfied first. When these needs are not met first, thoughts of them will dominate. In their study, Munro, Quayle, Simpson and Barnsley (2013) investigated food insecurity amongst tertiary education students in SA, focussing particularly on the University of Kwa-Zulu Natal (UKZN). The investigation was based on the premise that there is an expanse of literature documenting the correlation between a lack of food and diminished academic performance on school-going children. The authors in this regard attempted to ascertain whether this was still true for tertiary education students. Jones, Coetzee, Bailey and Wickham (2018) also cited this investigation in their article.

One of the key findings in this research was that students on Financial Aid were more likely to be food insecure in comparison to those able to finance their studies on their own (Munro, *et al.,* 2013). It is important to note that financial aid is given to students based on their family background and their inability to afford tertiary education. This inability further extends to the issue that the families of these students receiving assistance are also unlikely to be able to afford supplementing the costs associated with higher learning. Therefore, money meant to buy food is also directed towards buying textbooks and paying for accommodation. This will further affect their food security and possibly also their academic performance.

Another important finding in study was that participants highlighted high levels of worry due to their food insecurity (Dominguez-Whitehead, 2017). This worry in turn resulted in fatigue and a lack of concentration. The authors further noted that the

recruitment of vulnerable participants was difficult due to their absence from lectures. This truancy is attributed to the fact that vulnerable students attended lectures less frequently. The last key finding in this study was that participants reported the most food insecurity towards the end of the semester (Munro, *et al.,* 2013). These results are integral to the current study as academic demands are highest at this time due to exams and, as previously mentioned, food insecurity leads to fatigue and lower levels of concentration. In this case, fatigue and lower levels of concentration caused by food insecurity may be the reason for the failure in exams.

Van den Berg and Raubenheimer (2015) conducted a similar study to establish food insecurity amongst students at the University of the Free State (UFS). The study defined food insecurity as “not having sufficient food, experiencing hunger as a result of running out of food and being unable to afford more, eating a poor-quality diet as a result of limited food options and anxiety about having to acquire more food or being on food relief”. Food insecurity in this study was associated with the following variables: being an undergraduate, first generation, black or coloured, male, as well as single and unemployed. These were population groups that most likely rely on Financial Aid. In addition, the study results showed that students who rely on student loans were the most food insecure when compared to those on bursaries and those reliant on their families for financial assistance (Van den Berg and Raubenheimer, 2015).

The study also established that those who chose to address their food insecurity did so through finding employment. However, gaining employment presented its own set of challenges. Participants that were working highlighted that being employed hindered their ability to not only attend lectures and tutorials, but also reduced their study and assignment time (Van den Berg and Raubenheimer, 2015).

2.3.8.2 Accessibility of accommodation

Accessibility of accommodation is a challenge in many tertiary institutions that can potentially affect academic performance. There are minimal studies, specifically in SA, that have investigated how accommodation or the lack thereof affects academic performance. In its report, the Department of Higher Education and Training (DHET, 2017) emphasises student housing as a key variable associated with academic success.

Furthermore, students should be afforded the opportunity to live on campus in order to meet their academic potential (Dominguez-Whitehead, 2017). One of the advantages of living on or close to campus is that it allows students to access facilities when necessary, either for studying or the completion of assignments (Dominguez-Whitehead, 2017). However, institutions of higher learning are only able to house less than half their students in residences.

In addition to this, some students are even unable to afford to live on campus should they be given the option to do so. In such instances, these students live at home and spend a considerable part of their day commuting to and from school. This compromises co-curricular involvement and academic outcomes because access to facilities such as school computers, the internet and libraries is limited, with travelling costs often burdensome to them (Dominguez-Whitehead, 2017).

Moreover, many students who qualify for tertiary education are unable to live with their families because their choice of university is far from home. Additionally, they are also unable to afford to live on or close to campus due to a lack of finances. This results in them squatting at school, in libraries, computer labs, as well as their friend's places.

2.3.9 Institutional factors that affect student performance

Although universities function as academic institutions, they are also business entities that try to find a balance between the pursuits of their business agenda versus their academic agenda (Osaikhiuwu, 2014). This often has an influence on the number of resources invested into student wellbeing. Institutional resources thus play a key role in ensuring a conducive environment for leaners and ultimately affects academic performance. The availability of sufficient equipment, books, facilities and human resources is critical to the academic performance of students. However, poor infrastructure, inadequate teaching staff and insufficient equipment are often common at universities (Osaikhiuwu, 2014). This results in poor academic performance as the conditions are not conducive to and do not promote positive learning experiences.

Karemera, Reuben and Sillah (2003) recommended the following physical amenities within the university in order to enhance student performance:

- Appropriate hostel facilities that have designated study rooms;
- Student counseling services;
- Full equipped library facilities; and
- Computer labs with internet facilities to enable research.

The authors stated that all these amenities combined promote educational growth and improve academic performance.

In a study by Abbasi and Mir (2012), physical resources and staff competence were found to be an important factor in determining academic performance. Effective teaching was found to result in better learning outcomes and significantly increased students' quantitative academic outcomes. Heinesen (2010) further confirmed that the teacher's ability and competencies significantly improved academic performance. The findings of the study also showed that the lecturer's teaching style and student interaction enhance their grasping of concepts and ultimately, academic performance. Tutoring was additionally found to play a significant role in academic performance. In their study, AbdulRaheem, Yusuf and Odutayo (2017) analysed the role of tutoring in

improving academic success. The study highlighted that one of the advantages of tutoring is that learning is approached from multiple and missing perspectives, thus promoting understanding and ultimately, academic performance.

The availability of E-learning facilities at universities was also reported to promote understanding and academic performance (Castaño-Muñoz, Duart and Sancho-Vinuesa, 2014). Furthermore, modules such as FM require hands-on techniques, whereby students actively participate in order to grasp the concept, hence e-learning platforms assist in this regard.

2.4 STUDENTS' CHARACTERISTICS

Student characteristics such as their age, gender, entry qualifications and goal orientation, as well as self-motivation and work ethic have been reported to impact academic performance. In terms of gender, there is much evidence to show that females are out-performing their male counterparts (Abbasi and Mir, 2012). These observations have been attributed to several factors, with Baker (2003) on the one hand asserting that females are generally more motivated and readily pursue their academic goals. Hofman and Van Den Berg (2000) on the other hand state that females are more likely to adhere to their study schedules and attend lectures more often than the males. An interesting amount of literature has shown that older students in tertiary institutions generally out-perform younger students. This has been attributed to several factors, including higher levels of motivation, self-reflection, conscientiousness and self-control, as well as self-efficacy.

In the USA, McMillan (2010) set out to understand how academically successful students learn. This was done through using Self-regulating theory, which synthesizes cognitive, motivational, emotive and socio-contextual factors in order to understand the motivations as well as the skills needed for American Dental students to effectively learn their course material. The findings of the study highlight that in relation to cognitive learning strategies, many students learnt their course material by identifying the key

points in their study material, as well as summarising what they learn. The study operationalises this when students intentionally plan, monitor and regulate their study plans. For example, the study shows how some participants admitted to prior reviews of course material before attending class in order to have an understanding of what they were to learn (McMillan, 2010).

Of particular interest is that the study stresses the importance of motivation in line with goal-orientation and task value in order for students to be academically successful (Karemera, Reuben and Sillah, 2003). Goal-orientation refers to the reasons why students engage with the learning task, whereas task value is more concerned with student interest in the subject, as well as the value of importance placed on the subject they are studying for (McMillan, 2010). An example of this is how students expressed their belief that they had to understand the course material in order to be safe and effective dentists. This is goal-orientation, which then transformed into task orientation when students highlighted that studying the course material leads to students understanding what they are doing. Goal-orientation eventually culminated in how pleasurable participants found their Dentistry courses (Abbasi and Mir, 2012). Participants highlighted that despite the challenges they faced in the course, they still found it pleasurable.

2.4.1 Resilience: Coping with everyday shocks and stressors

Resilience is another student characteristic that plays an important role in education. Theron and Theron (2010) critically reviewed youth resilience within the SA context. The authors highlighted that due to the challenges that disadvantaged groups face, youths from these groups are at greater risk of facing challenges. The SA Constitution emphasises the responsibility of adults and institutions in order to address these risks and build resilience (Taylor, 2013). In this paper, resilience is conceptualised as being able to bounce back after facing adversity and challenges (Theron and Theron, 2010) and it is characterised by both cultural and contextual nuances.

There are four pillars of resilience. The first of these pillars comprises those *protective factors anchored in the self*. Of the 23 articles reviewed, 17 highlighted that specific character traits, such as a positive temperament, autonomy and conscientiousness, encourage resilience (Theron and Theron, 2010). In addition to personality traits, the following characteristics were also reported to anchor resilience: problem-solving skills and positive cognitive appraisals.

The second of these pillars is that of *protective resources embedded in the family*. Nine of the 23 papers reviewed highlighted that supportive family structures played a critical role in encouraging resilience amongst youth (Theron and Theron, 2010). Mothers also play a critical role in encouraging resilience in their children. Youth from disadvantaged groups highlighted that their mothers played an important role in providing security by encouraging them towards self-actualisation (Bobek, 2012). Supportive family relationships can thus lead towards the encouragement of completing tertiary studies and commitment to education. Theron and Theron (2010) highlight that supportive family structures are characterised by feelings of belonging, participation in jointactivities, being loved and valued, as well as the establishment of consistent family rules. With regard to the current study, it is important to establish the role that family plays when it comes to academic success.

Protective factors embedded in the community make up the fourth pillar of resilience. These include schools, particularly teachers, who are seen as being fair. Teachers encourage students towards resilience through the creation of safe spaces that allow students to open up (Theron and Theron, 2010). Apart from teachers, community support is also inclusive of the following (Theron and Theron, 2010):

a. Community members that can support and be respected by the youth;
b. Communities that provide therapeutic counselling;
c. Communities that actively support the youth; and
d. Communities that work together to curb violence and crime.

Within communities, friends also have an impact on resilience because they provide a

space in which youths feel accepted. In addition, literature points to the fact that friendscan help to subvert food insecurity, as well as in learning and reinforcing subject matter taught in school. The analysis of social networks, especially of friends, is important for this current research study because it allows the researcher to investigate whether participants are able to cope with the stressors associated with university through the help of friends.

The final pillar is that of *protective factors facilitated by culture*. Of particular importance is the role of religion in facilitating resilience. Religious leaders, whether Christian or ancestral, were seen as positively contributing towards the ability to bounce back after a shock or a stressor (Theron and Theron, 2010).

2.5 INTERVENTION STRATEGIES TO IMPROVE STUDENT PERFORMANCE

As per Ross, *et al*. (2005), mediation alludes to an efficient and unequivocal guidance given to speed up development in a space of distinguished need. At the university, many departments have implemented various intervention strategies with the objective of improving student performance relative to specific, measurable and realistic goals. McMillan (2010) suggests that for any strategy to be effective, it should be implemented based on a clearly based objective. In addition, it is crucial to ensure that these strategies are truly addressing the need. In the Accounting programme, many students are under-achieving due to various reasons, which this investigation is designed to ascertain.

2.5.1 Curriculum Re-shaping

As Mahlo and Taole (2012) explain, student performance has marked a major concern on educational matters that have not yet been absorbed in school. Moreover, many researchers (McMillan, 2010) have ventured into identifying the barriers to

effective learning. Findings indicate clearly that poor student performance is caused by poor educational achievement at school level, especially in numeracy and English. This raises the question of curricular design: with these deficiencies, can the curriculum be re-shaped to allow for more remedial help to make up for these school deficiencies?

Another point raised is that when accounting programmes are designed, the designers are not considering the students' valuable knowledge and experiences that could compliment the programme. Students' valuable knowledge is a very important point of curriculum design as they might have valuable prior knowledge, for example they might have offered financial assistance earlier. This might be of importance on curriculum design (Mahlo and Taole, 2012). The interventions including parental involvement, capacity building, life skills, student support programs, good leadership and active learning will be covered in the following sections.

2.5.2 Active learning

Braxton, Milem and Sullivan (2000) state that active learning refers to a lecturing method that allows greater student involvement and retention of knowledge. Mbugua, *et al.* (2012), however, find this lecture method ineffective in that it turns learners into passive participants in the learning process. Hands-on techniques are required by modules such as FM, whereby students actively participate in order to grasp the concept. Nonetheless, this lecture method is very useful in covering large volumes of content.

2.5.3 Parental Involvement

Research also proves that when a parent is involved, the student tends to do better academically and socially. Mestry and Singh (2007) state that student progress depends more on effective contact and collaboration between stakeholders and university personnel. Moreover, Hopkins (1998) also supports the involvement of

parents in the educational development process of the student to avoid failing and dropouts.

2.5.4 Capacity building

Lecturers are the crucial drivers of good quality education and should be sufficiently equipped to meet student needs. Furthermore, new policy structures should be backed up with supportive procedures in place to strengthen the role of lecturers. According to De Clercq and Shalem (2014), lecturers need competencies, for example, subject matter, pedagogical and societal knowledge, which helps them in understanding their students and the learning environment.

In addition, the main focus has to be to promote integration in teaching and learning across all Higher Education and Training (HET) structures and continues to position teaching and learning as key responsibilities of all tertiary educators. This promotes networking amongst teaching and learning practitioners in centralised Academic Development structures, those in faculties, departments and programmes, as well as tertiary educators working outside HET institutions. The Higher Education Learning and Teaching Association of Southern Africa (HELTASA) strives to mobilise a broad spectrum of tertiary educators through a series of teaching and learning-focused projects. It should be noted that lecturers' development is critical for the success of any programme created for lecturers' development (Mestry and Singh, 2007).

2.5.5 Life skills programme

According to Clarke (2001), life skills are very important in the business world in the 21st century and play a vital role in students coping with their day-to-day academic life. This enables successful living and learning. Life skills involve caring attitudes, dedication and disciplined work habits. The General Education department at DUT offers modules including Cornerstone 101, Interpersonal communication skills, Law for life and My World- my universe. These modules provide crucial life skills for students,

contributing much to DUT graduate attributes.

2.5.6 Student Support programme

Student support within a university refers to all activities that reinforce the university's capacity to respond to diversity and difficulties encountered by students at the university (Mbugua, *et al.,* 2012). Furthermore, it is not easy for a university to improveacademic success without effective student support.

2.5.7 Good leadership

Kurian (2008) suggests that effective leadership marks one of the significant characteristics of a successful university. Ill-disciplined and non-committed learners cause many challenges to effective learning. Therefore, management systems must be implemented to ensure effective teaching and learning. Moreover, an appropriate atmosphere should be maintained to ensure the effective delivery of the curriculum. The leadership should implement monitoring programmes to monitor and assess both lecturer and student performance. However, this is only applicable in SA, where there is a Quality Promotion Office run by the department of Higher Education. Its aim is to promote, back, as well as enable quality enhancement activities across academic and administrative units in all universities.

2.6 CONCLUSION

The intention of this literature review was to understand the context in which the study is embedded, as well as to identify key themes of relevance. The review began by discussing the socio-economic factors that affect academic achievement. In this regard, the review unpacked poverty as a barrier to academic success, although it does not always lead to attrition or academic failure. It also discussed how familial networks have the ability to influence academic success. One of the key themes that this section of

the review identified is that literature exists within the SA context that attributes student academic failure to a lack of school teachers' content knowledge, especially in subjects such as English, Mathematics and Science.

Another theme discussed in the review was that of student wellbeing. The literature notes that despite a general awareness of the student accommodation crisis in SA, there are very few writings focussed on the details of the problem. Therefore, this current investigation would contribute to the existing body of literature.

The review then examined organisational factors and student characteristics that can lead to student failure and attrition. As highlighted throughout this chapter, the main contributing factor to this issue is poverty and a lack of financial resources. In addition, the under-preparedness of students leads to them struggling with tertiary education.

The review also explored resilience in order to understand the mechanisms at play that allow for academic success, despite being from a disadvantaged background. Four pillars that contribute to resilience were highlighted, namely positive personality attributes; positive familial relationships; positive relationships within the community; as well as religion. This is important for the current research study as it draws attention to the way in which structure and agency work together and contribute towards bouncing back or being able to adapt to the shocks and stressors associated with university life.

The review concluded with a discussion of intervention strategies to improve student performance, which include student support programmes, capacity building for lecturers, good leadership, parental involvement and active learning. All these are important for this research into how one department at DUT (FM) might improve the learning environment for their students.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 INTRODUCTION

The previous chapter described the reviewed literature on the study topic, whilst this chapter expands on the methodology employed to conduct the research. This includes the design of the study and questionnaire, the target population, sampling method and pilot study. In addition, the analysis of data is explained, as well as the study's validity, reliability and ethical considerations.

3.2 RESEARCH METHOD

In order to produce high-quality results and detailed reports, a research method provides guidance to your thoughts and actions (Kothari, 2019). In conducting research, researchers can use either a quantitative or qualitative method, or a mixed method approach (Kothari, 2019). A quantitative method was adopted for this study, using a questionnaire administeredto a sample of students.

3.3 RESEARCH DESIGN

The Zikmund (2018) definition of a research design indicates how and when information should be collected and analyzed. Researchers can employ five possible research designs, namely descriptive, experimental, correlational, diagnostic, and explanatory analysis (Stangor, 2017). This study used a diagnoses approach in order to investigate factors that influence the academic performance of students registered for Financial Management at DUT. In this study, the diagnosis design aims to determine the causes of a specific topic or phenomenon. To identify specific problems or challenges learners face, it can be helpful to identify the causes (Kotowicz, 2018).

3.4 RESEARCH PARADIGM

According to Alvesson and Sköldberg (2020), a research paradigm is a set of beliefs and assumptions about how knowledge develops. The development and application of science are influenced by a variety of perspectives. Positive and phenomenological paradigms are the two major paradigms of research. Positive research paradigm was used in the study. Positive researchers use scientific methods and quantification to describe parameters more precisely and to provide more insight into the relationships between them. A positive perspective seeks truth and conveys it empirically, according to Henning, Van Rensburg, and Smit (2016). According to positivism, human behaviour is controlled by the external environment. As a result, researchers who subscribe to this theory of knowledge frequently conduct structured interviews and close-ended questionnaires (Bryman, 2018).

3.5 TARGET POPULATION

Babin and Zikmund (2015) identify a population as a group of units that a research endeavour seeks to investigate. Target population' refers to the number of individuals with shared characteristics that could be of interest for the purpose of this study (Creswell and Garrett, 2008). The target population in this study comprises FM students from the Public Management Department at DUT. Students were selected from both the 3rd year and Bachelor of Technology (B-Tech) (4th year) cohorts. This is because the FM course is offered to both 3rd year and B-Tech students. The target population thus comprised 330 students in their 3rd and 4th year of studies at DUT.

3.6 SAMPLING METHOD

There are two methods of sampling, namely probability and non-probability sampling. For the purposes of this study, non-probability sampling was used. This method was used because the students were supposed to be studying FM in the Public Management Department in order for them to be selected to be sent the questionnaire.

The target population was the 330 students who are registered in the 3rd and 4th years of FM. These 330 students were all sent the questionnaire without any sampling method being used, but only 160 responded to the questionnaire. Therefore, the 160 respondents to this questionnaire constitute the sample for analysis. The respondents were sent an e-questionnaire through software that allows for reminders. The respondents were sent a link which they automatically fill and the researcher receives the feedback. From the 330 students who were doing their 3rd and 4th year studies at DUT, only 160 took part in the survey. It should be noted that this is thus a self-selected sample of respondents. The 170 students who did not take part in the investigation declined of their own free will. Those who are disinclined to respond are more likely to be those who are not prioritising their studies or who maybe failing and dropping out.

3.7 QUESTIONNAIRE DESIGN

Burns, Bush and Sinha (2014) state that questionnaires are sets of questions and scales used to collect data. A self- administered questionnaire was used to collect data since it is quicker and less expensive when compared to other techniques used for data collection. The questionnaire was designed using the information from the literature review and the research objectives.

The questionnaire for the study consisted mainly of closed-ended questions and ONE open-ended question. In addition, the questionnaire used a 5-point Likert scale for responses. The questionnaire is attached in Appendix D. The initial questions mainly investigated the demographic characteristics of the respondents. Its main focus was to investigate aspects like gender, race, marital status, age, mode of study, as well as year of study for the respondents. This was done in order to obtain the bio-characteristics of the respondents.

The other questions investigate the socio-economic status of respondents. This is mainly aimed at investigating the educational level of respondents' parents/ guardians, the income status of respondents' parents/ guardian, as well as the involvement of respondents' parents/ guardians in their schoolwork. This could also have an impact

on the respondents' academic performance.

There was another question investigating the academic performance of learners. Factors such as tutorial attendance, performance in class tests, previous examinations and self-given homework had an impact on the general performance of learners. These factors were also investigated in order to obtain the reasons behind the learners' academic performance.

There was also another question that investigated what was helpful in achieving one's studies at DUT. Factors such as lectures, tutorials, printed textbooks, online study material, use of library, use of computers, student-run study groups, past exam papers, as well as regular tests, are but a few. These were some of the aspects included by the researcher in order to understand which factors were significant in assisting respondents in their studies.

Lastly, there was a question inquiring from respondents what hinders them from achieving high results in FM. This was an open question. The main objective of asking such a question was to obtain an in-depth understanding of the factors that might be hindering learners from achieving high marks in FM. These questions in the questionnaire were also subjective, based on the perception of the learners, which could make the questionnaire unreliable to a certain extent.

3.8 PILOT STUDY

The motivation behind a pilot study is to refine the inquiries in the survey to guarantee that there is no equivocalness (Sekaran and Bougie, 2016). With the end goal of this study, twenty (20) respondents were selected to conduct a pilot study. The principal aim was to test the research instrument.

In addition, the pilot study of the questionnaire for this study was conducted to ensure validity. Pre-testing the research measuring instrument was significant in determining

whether there were any problems with it before administering it to the larger sample. The pilot study was conducted with a limited number of representatives from the targeted population, and any mistakes encountered were corrected prior to final distribution of the questionnaire.

3.9 DATA ANALYSIS

Data analysis is the initial step taken after data collection. It is the cycle whereby scientists enter crude data into a data grid to acquire data that can be utilised to address the research targets. Raw data is of little use until it has been organised and summed up, and a scope of ends drawn (Zikmund, *et al.,* 2013).

Data analysis is the precise interaction with which scientists load the accumulated unstructured data into the data framework and make justifiable data that can be utilized to respond to explore questions and speculations. This is on the grounds that unstructured and raw, the gathered data would have no use until it has been organised and summed up and a scope of ends drawn. Responses will be analysed using the latest version of SPSS version 26.0 for windows, applying the appropriate statistical tests. R software was also used. Researchers can clean, analyze, and graph data using R software, a programming language for statistical computing and graphics (Hlavac, 2022). In addition to researchers from a variety of disciplines and teachers of statistics and research methods, it is widely used in estimation and display of results. The data was analysed by a statistician.

3.9.1 Descriptive statistics

The most efficient means of summarising the characteristics of large sets of data is through the use of descriptive statistics. A frequency count is a count of the number of times a value occurs in the dataset, or the number of respondents who give a particular answer (McGivern, 2009). The results of frequency counts can be expressed in pie-charts, histograms or tables. These were used for the responses to the early part of the questionnaire on students' characteristics

Ranking and Likert scales

Some questions, such as those about family background and also those about the learning provision, were in the form of a ranking table.

3.9.2 Inferential statistics

According to Walliman (2011), inferential statistics measure the inferences that can be drawn from the population on the basis of corresponding indices obtained from selected samples, which assist in determining the relationships and differences between variables. For this study, inferential statistics that tested the relationships between dependent and independent variables were used. Chi-square tests were used on the frequency tables and correlations were attempted on the responses that were ranked.

3.10 VALIDITY

The validity of a measurement instrument refers to the degree to which the instrument measures what it is required to measure (Delport and Roestenburg, 2011). Similarly, Sekaran and Bougie (2010) defined validity as the extent to which the data collected truly reflects the phenomenon being studied. To ensure validity, a peer review and justification of the research questionnaire was undertaken as a pilot study. Therefore, both the pilot study and peer review assisted in the adjustment of ambiguously formulated variables. This study used face validity for providing validity in the measuring instruments.

Face validity is the extent to which the measuring instruments used are perceived to measure certain characteristics. Since this is a subjective form of judgement, researchers cannot rely entirely on its veracity (Leedy and Ormrod, 2014). In addition, face validity is the logical scale used to reflect what is intended to be measured (Zikmund, *et al.,* 2013). Face validity for the study was ensured by consulting a supervisor and statistician with regard to the questionnaire prior to administering it to the sample population. This ensured that there were no mistakes, and that the questionnaire measured what was supposed to be measured. In addition, the

questionnaire was pre-tested to ensure that questions were well-structured and that all respondents could understand and answer them. This was intended to assist respondents in the actual survey to clearly see what was being asked and to answer correctly.

3.11 RELIABILITY

The findings from Ayodele (2016) claim that reliability in quantitative research can be defined as a perfect blend between what occurs in the natural setting that is being studied and what the researcher records as data. Reliability is defined as the degree to which a research method (tool, equipment) produces consistent results (Ayodele, 2016). Although a pilot study was conducted in order to ensure reliability, there was some room for misunderstanding- for example, with regard to what is low- and middle-income. Moreover, what is regarded as good academic performance might vary from respondent to respondent. It was mainly due to such subjective factors that the questionnaire was not completely reliable.

3.12 ANONYMITY AND CONFIDENTIALITY

Anonymity and confidentiality are given by researchers to defend respondent characters and other data obtained from them during examinations (Crow and Wiles, 2008). Participants were guaranteed that the information they provided were not related to them in any way, respecting their wish to stay unknown. This investigation ensured anonymity and confidentiality by not asking respondents for their names, and the researcher kept the surveys in a secure place that was inaccessible by the public. Information is to be shredded after five years. This allows respondents to answer the questionnaires truthfully and willingly.

3.13 ETHICAL CONSIDERATIONS

Burns, Bush and Sinha (2014) confirm that research participants must participate in a

voluntary way, free from coercion. Participation shall be voluntary and respondents were assured of confidentiality, with the questionnaire clearly stating that responses were used strictly for statistical purposes. This was necessary because the researcher is a lecturer in the FM department and some respondents might fear that negative responses would affect their academic grades.

According to Creswell and Clark (2017), the main ethical issues that arise in client-based marketing research concern:

- Privacy;
- Confidentiality;
- Deception;
- Imposition;
- Integrity; and
- Misrepresentation.

For this study, Ethical clearance and gatekeeper permission were acquired from the Institutional Research Ethics Committee (IREC) before the study was conducted, which ensured that ethical concerns were taken into account. Participants were informed of the study and the results if they wished to know these outcomes. The researcher informed participants that they could withdraw from the research process at any time. Respondents were informed of the research purpose, and their anonymity being guaranteed when completing questionnaires. Consent forms were explained and signed by respondents, showing that they clearly understood what was expected from them. Respondents signed these consent forms prior to participating to indicate their agreement to voluntarily contribute towards the study.

The letter sent to explain the study (see Appendix) stated that the study would consist of 150 student respondents and some lecturers. This was because in the initial plan, the researcher had intended to consult lecturers about their impressions of their students and of their results. In the end, this was not done, and the questionnaire was in fact answered by 160 students.

3.14 CONCLUSION

In conclusion, this chapter presented an outline of the research methodology and processes used for this study. It discussed the research design and explored the sampling technique, data collection and analysis methods used by the researcher. The issues of validity, reliability, anonymity and confidentiality, as well as ethics, were also discussed, showing clearly how these were addressed.

The next chapter presents the results obtained from the data collection.

CHAPTER 4

INTERPRETATION AND DISCUSSION OF THE DATA

4.1 INTRODUCTION

With the previous chapter having provided an outline of the study methodology, this chapter presents the results and discusses the findings obtained from the questionnaire in this study. The questionnaire was the primary tool used to collect data and was distributed to students. The data gathered from their feedback was analysed with SPSS version 26.0. The results are presented using charts, cross arrangements and different figures for the quantitative data gathered. Inferential statistics were analysed using correlations and chi-square. Although the SPSS programme was run with all variables, only those with significant correlations are discussed in the sections below.

Unfortunately, not enough data was gleaned on the open final question. Consequently, this question was not used in the data analysis. This chapter thus presents an analysis of the quantitative data only.

4.2 THE SAMPLE

Altogether, there were 330 students doing their 3rd or 4th year at DUT. However, only 160 responded to the questionnaire. Therefore, the response rate was 49% from all the respondents who were part of the target population. Unfortunately, one student claimed to be in year 2, as seen in Table 4.4 but it was impossible to eliminate this entry or find out why this occurred when the students were selected as being in third or fourth year. It is possible that this respondent had moved across from another institution so was in the second year of registration at DUT but in the 4th year of the qualification.

4.3 THE RESEARCH INSTRUMENT

The research instrument comprised 33 questions, with a 5-point Likert scale from Strongly Agree to Strongly Disagree. There was an open-ended question in the questionnaire which was ignored by many respondents and was thus not used in compiling the results. The names of the schools were also not used in compiling the results.

4.4 SECTION A: BIOGRAPHICAL DATA

This section summarised the biographical characteristics of the respondents.

4.4.1 Age of respondents

The table below describes the overall gender distribution of respondents by age.

Table 4.1: Age of respondents

		Gender		Total
Age		**Male**	**Female**	
< 20	Count	0	1	1
	% within Age	0.0%	100.0%	100.0%
	% within Gender	0.0%	1.0%	0.6%
	% of Total	**0.0%**	**0.6%**	**0.6%**
20 – 29	Count	51	64	115
	% within Age	44.3%	55.7%	100.0%
	% within Gender	85.0%	64.0%	71.9%
	% of Total	**31.9%**	**40.0%**	**71.9%**
30 – 39	Count	6	26	32
	% within Age	18.8%	81.3%	100.0%
	% within Gender	10.0%	26.0%	20.0%

	% of Total	**3.8%**	**16.3%**	**20.0%**
40 – 49	Count	2	7	9
	% within Age	22.2%	77.8%	100.0%
	% within Gender	3.3%	7.0%	5.6%
	% of Total	**1.3%**	**4.4%**	**5.6%**
50+	Count	1	2	3
	% within Age	33.3%	66.7%	100.0%
	% within Gender	1.7%	2.0%	1.9%
	% of Total	**0.6%**	**1.3%**	**1.9%**
Total	Count	60	100	160
	% within Age	37.5%	62.5%	100.0%
	% within Gender	100.0%	100.0%	100.0%
	% of Total	**37.5%**	**62.5%**	**100.0%**

Overall, the ratio of males to females is approximately 1:2 (37.5 percent: 62.5 percent). In the category of respondents younger than 20 years, 44.3 percent were male and 55.7 percent were female. The 20 to 29-year age group contributed 71.9 percent of the sample population, comprising 31.9 percent males and 40 percent females. Therefore, the 20 to 29-year age group had the highest number of respondents, probably because these were undergraduate students. Within the age classification of 30 to 39 years, 18.8 percent were male, while the classification of male (just) were between the ages of 30 to 39 years (10.0 percent). This class of male between the ages of 30 to 39 years was 3.8 percent. Within the male class, 3.3 percent were mature and between 40 to 49 years of age, with this classification comprising 1.3 percent of the sample. Finally, the category of respondents over 50 years old constituted one of the least percentages (1.9 percent). Thus, the distribution is not uniform across the age groups but skewed towards the younger age groups.

4.4.2 Race of respondents

The racial composition of the sample is illustrated in Table 4.2 below:

Table 4.2: Race of respondents

	Frequency	***Percent***
African	152	95.0
Indian	4	2.5
White	2	1.3
Coloured	2	1.3
Total	**160**	**100.0**

The sample was predominantly African (95 percent), as shown in Table 4.2. This was due to the composition of students enrolled at the DUT, with the majority being African, specifically in the Faculty of Management Sciences. Indians were represented by 2.5 percent, whilst Coloureds and Whites constituted 1.3 percent each. Race categories show such a majority in one category (African) that it is not worth doing further inferential calculations.

4.4.3 Marital Status

Respondents' marital status is reflected below:

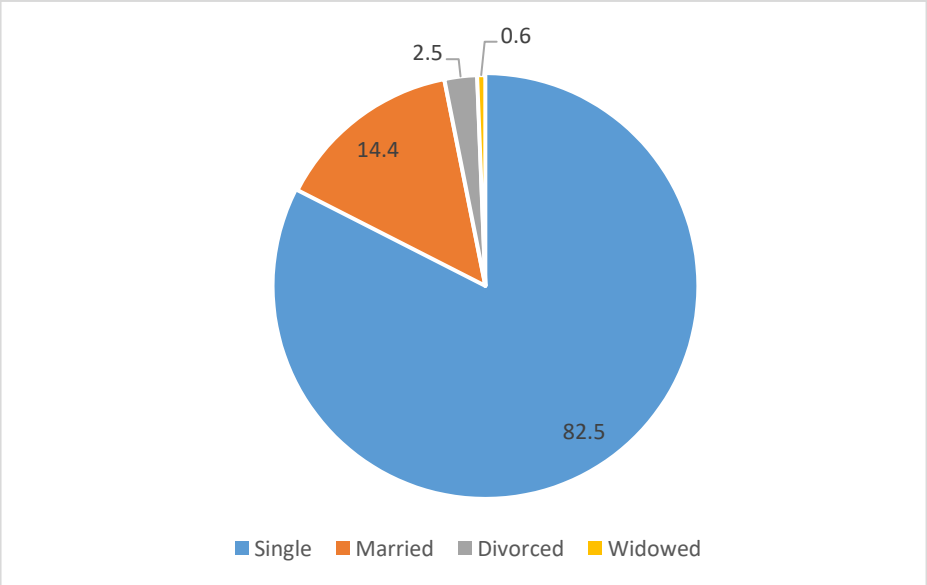

Figure 4-1: Marital status

The majority of respondents are single (82.5 percent), whilst approximately 15 percent of respondents are married, which also relates to the large number of younger respondents in the sample by age. This is probably due to the fact that most people tend to go to universities just after finishing their matric and before taking on any other commitments, such as getting married and having families.

4.4.4 Mode of study

The table below indicates the mode of study.

Table 4.3: Mode of study

	Frequency	Percent
Part Time	71	44.4
Full Time	89	55.6
Total	**160**	**100.0**

Full-time students contributed the most respondents (55.6 percent), whilst part-time students constituted 44.4 percent. Full-time students are more likely to live in DUT residences and receive a full grant, or are richer students living at home with parents who have paid their fees. Part-time students are likely to be those without full grants, who are also working to sustain themselves.

4.4.5 Year of study

The year of study is shown below.

Table 4.4: Year of study

	Frequency	Percent
Second	1	0.6
Third	71	44.4
Fourth	88	55.0
Total	**160**	**100.0**

The results showed that 44 percent of the respondents were third-year students. This is a total of 72 respondents, with fourth-year students comprised 88 respondents (55.0 percent). Moreover, one student claimed to be second year. It was impossible to verify who this student is as the responses were submitted anonymously. The system was supposed to select only third and fourth years. It could be assumed that this student is one who transferred from another institution or programme, coming straight into the third year of the FM programme who ticked '2nd year', although studying in the fourth year.

4.4.6 Type of school

The questionnaire further investigated issues relating to learners' prior education by asking questions related to the name of learners' Matric school, where it was situated, as well as the grade obtained by learners, to mention but a few. This was mainly done

in order to have an understanding of where exactly the respondent obtained his/her high school qualification as this was a crucial element of the findings. At this time, the researcher had hoped to use the name to get the quintile of the school as the quintile would act as an objective measure of the poverty of the catchment area of the school. There were no learners who came from faith schools like Roman Catholic schools. However, the data from the name of the school could not be used as some respondents did not fill this in and it also proved impossible to get the quintile measure. The type of school that respondents attended is shown below.

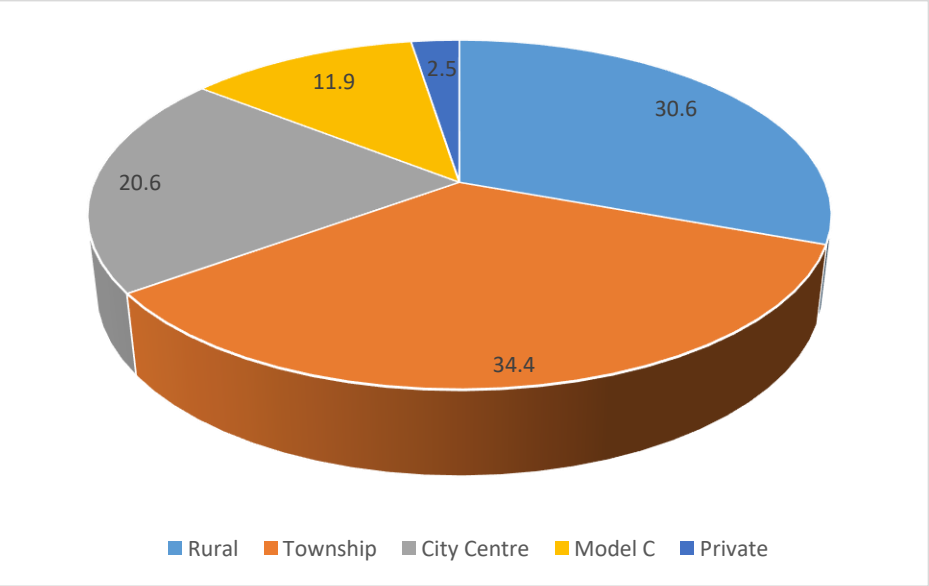

Figure 4-2: Type of school

The figure above indicates that 34.4 percent went to Township and, 30.6 percent went to rural schools ($p < 0.001$). A further 20.6 percent of respondents attended city centre schools, with the smallest grouping having attended private schools (2.5 percent).

4.4.7 Level of Senior Certificate Pass

The respondents' level of education is reflected below.

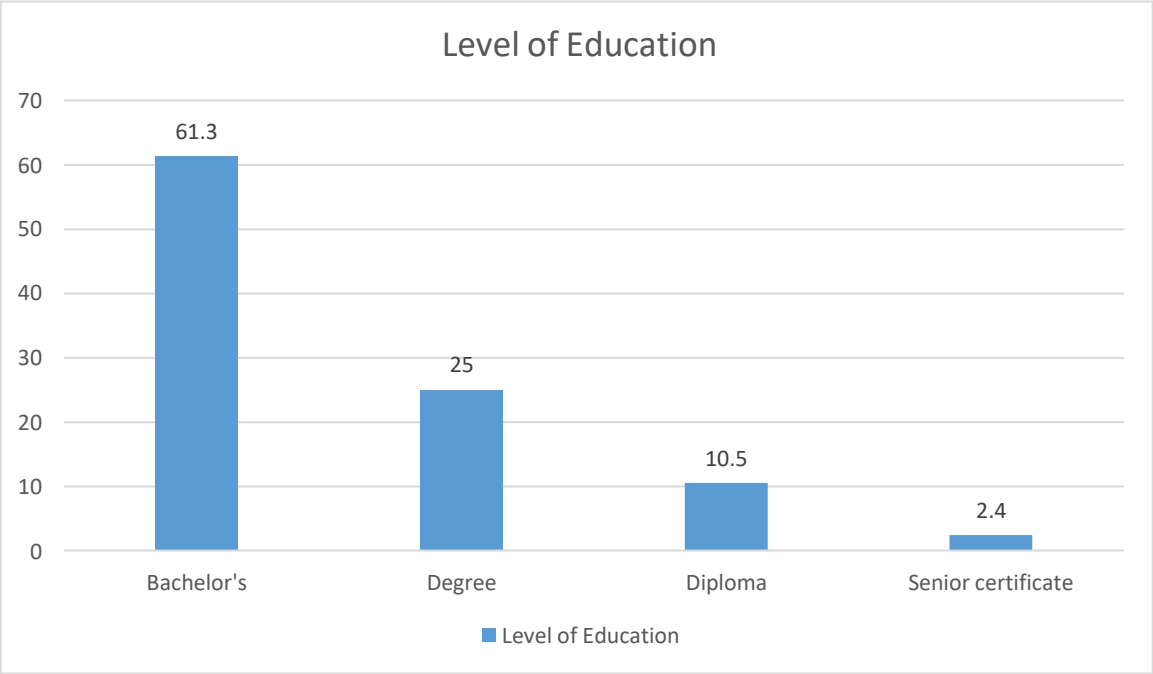

Figure 4-3: Level of education

Table 4.5: Level of Senior Certificate Examination ("Matric") Result

		Frequency	Percent	Valid Percen	Cumulative Percent
Valid	Bachelor's	76	47,5	61,3	61,3
	Diploma	13	8,1	10,5	71,8
	Exemption	32	20,0	25,8	97,6
	Senior Cert	3	1,9	2,4	100,0
	Total	124	77,5	100,0	
Missing	System	36	22,5		
Total		160	100,0		

Approximately 61 percent of the respondents achieved Bachelor passes, with a small number having achieved a senior certificate pass (2.4 percent). A Bachelor's pass allows for one to study towards a Bachelor's degree at university. The prerequisites are

normally 40% for home language, 50% for four other high credit subjects and 30% for two different subjects. A Diploma pass is a pass level that allows one to study towards a Certificate and a Diploma. When students pass their Matric (grade 12), they can earn a Matric exemption. People sometimes refer to a Matric exemption as a Bachelor's degree pass since it gives learners access to studying for a degree (McGivern, 2009).

A student can fail one subject but have at least 40 percent in home language, 40 percent for four other high credit subjects and at least 30 percent for two subjects (Fredie, 2020). Whilst a senior certificate helps students gain provisional entrance to acertificate course, students must achieve at least 40 percent in their home language, 40 percent for two other subjects and should have 30 percent for six other subjects (DHET, 2017).

4.4.8 Admission Status

Table 4.6: Admission status

	Frequency	Percent
Certificate	1	0.6
Higher certificate	2	1.3
Diploma	136	85.0
Degree	21	13.1
Total	**160**	**100.0**

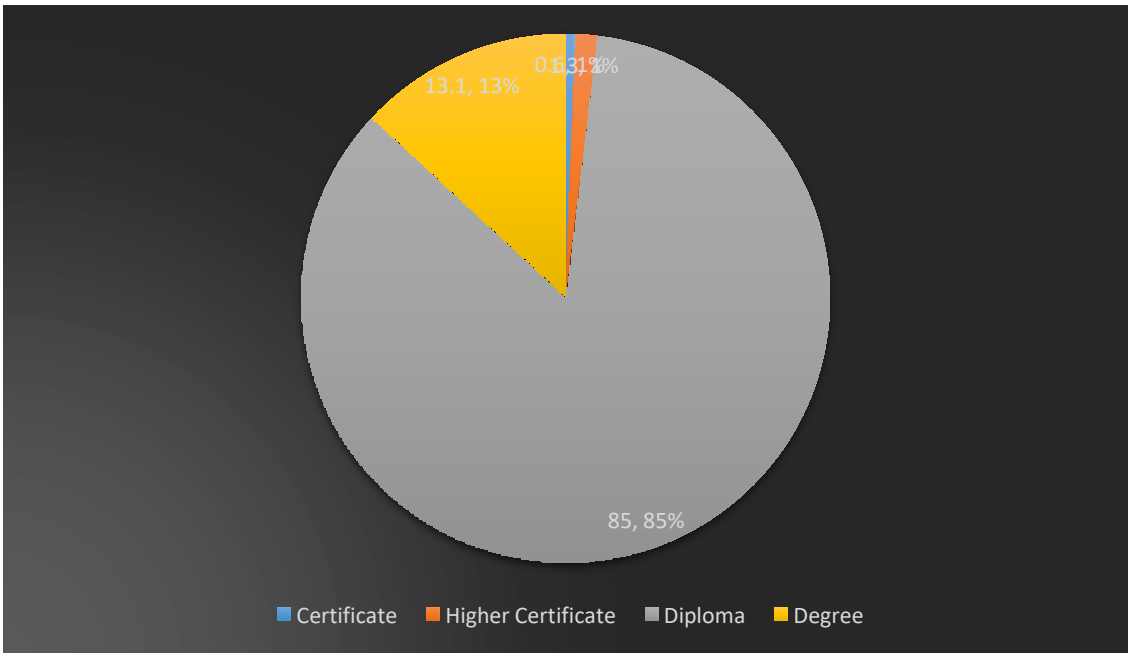

Figure 4-4: Admission Status

The table and figure above indicate the admission status of the respondents. Due to the fact that there were many learners who had a Bachelor pass in matric, they had an option to either study towards their degree, diploma or Higher Certificate qualification. With DUT however, learners need to finish their diploma first before moving into their Degree (B-Tech). However, not many learners return for their degrees after completing the Diploma, as shown by Table 4.6.

There were more respondents pursuing diplomas (85 percent), with less than two percent studying towards certificate programmes. The second largest number of respondents were those pursuing degrees (13.1 percent). Admission Status categories show a majority in one category (Diploma), hence it is not worth doing further inferential calculations.

4.5 SECTION ANALYSIS

The section that follows analyses the scoring patterns of the respondents per variable per section. Results are first presented using summarised percentages for the variables that constitute each section, and these are then further analysed according to the importance of the statements.

4.5.1 Socio-economic status

Table 4.7: Summary of Parental evaluation

		Low		Medium		High	
		Count	Row N %	Count	Row N %	Count	Row N %
Educational Level of my parents/ guardians	Q4.1	62	39.2 %	74	46.8 %	22	13.9 %
Income status of my parents/ guardians	Q4.2	83	52.9 %	66	42.0 %	8	5.1%
Involvement of my parents/ guardians in my schoolwork	Q4.3	69	43.9 %	48	30.6 %	40	25.5 %

- **Educational Level of my parents/ guardians**

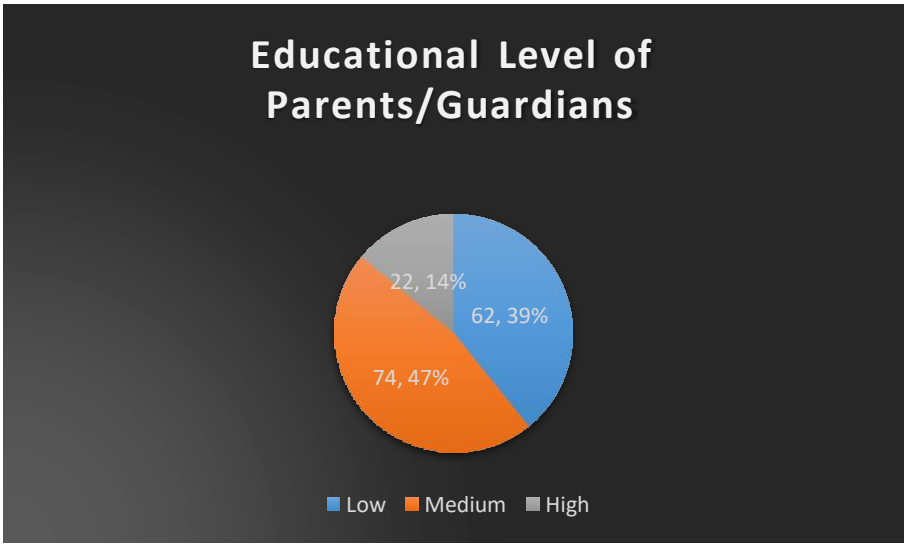

Figure 4-5: Educational Level of parents/ guardians

As shown (Table 4.7), the majority (46.8 percent) of the respondents stated the educational level of their parents as medium, followed by those who said it was low (39.2 percent) and lastly, those who indicated high (13.9 percent). The level of education of respondents impacts on students' performance. Mbugua, *et al.,* (2012) note a positive correlation between the academic performance of students and their parents' level of education. Children from poor backgrounds, as well as those whose parents do not have tertiary qualifications, are likely to struggle and drop out of school.

- **Income status of my parents/ guardian**

Table 4.8: Income Status of Parents

Income status of my parents/ guardian

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Low	83	51,9	52,9	52,9
	Medium	66	41,3	42,0	94,9
	High	8	5,0	5,1	100,0
	Total	157	98,1	100,0	
Missing	System	3	1,9		
Total		**160**	**100,0**		

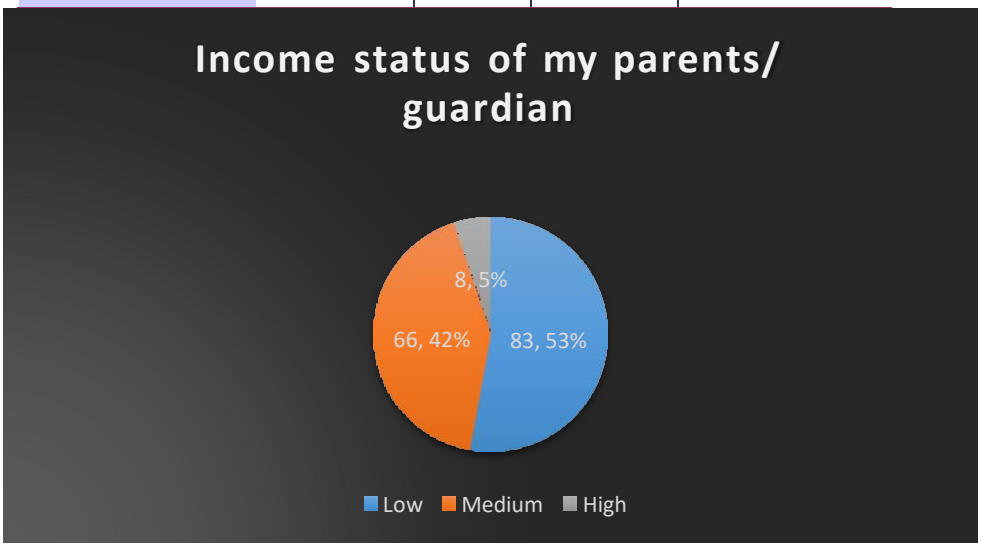

Figure 4-6: Income status of my parents/ guardian

The majority of respondents stated that the income status of their parents or guardians was Low, with 42 percent who said it was medium and lastly, 5.1 percent stated that the income status of their parents or guardians was high. The Income status of guardians impacts on students because some students might attend classes late, thus affecting their performance. Research by Machebe, Ezegbe and Onuoha (2017) determined that the income levels of parents' impact on the academic achievements of the student.

- **Involvement of my parents/ guardians in my schoolwork**

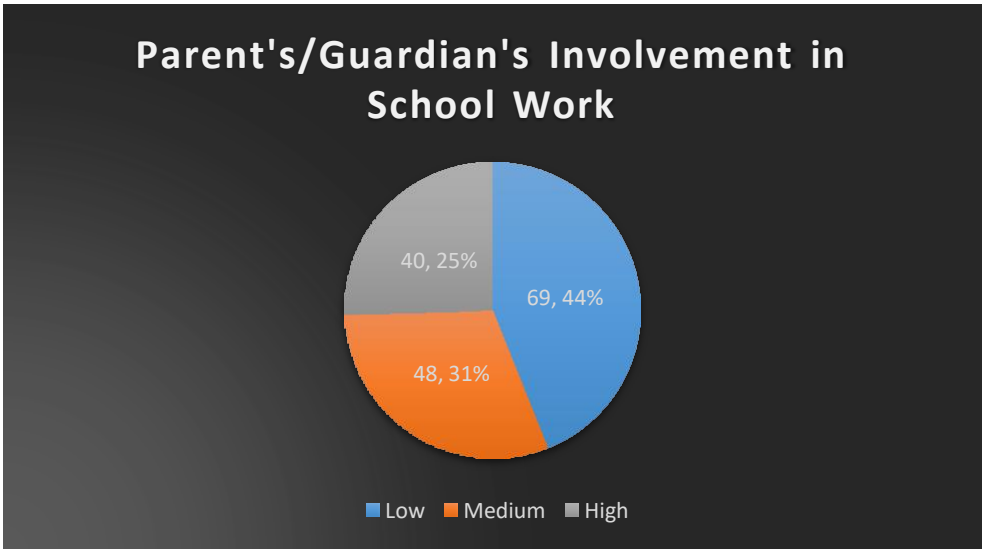

Figure 4-7: Parent's/Guardian's involvement in school work

Figure 4.7 shows that 43.9 percent of respondents indicated levels of Low, 30.6 percent had levels of Medium and 25.5 percent had levels of High to the statement that their parents or guardians were involved in their school work. These results show that the largest group of respondents have low involvement of parents or guardians in their schoolwork. These results agree with the findings of Mahuro, Hungi and Lamb (2016) and imply that parental participation plays a pivotal role in motivating children to improve their academic grades. For students to reap maximum benefits in an education system, the learning should not be solely left to the student–teacher relationship, but should be extended to include active parental involvement amongst other education

stakeholders.

4.5.2 Academic performance

Student performance is evaluated by means of tutorial attendance, class tests, previous examinations and self-given homework.

Table 4.9: Respondents' academic performance

		None		Poor		Fair		Good		Excellent	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Tutorial Attendance	Q5.1	18	11.4%	9	5.7%	40	25.3%	55	34.8%	36	22.8%
Class Tests	Q5.2	2	1.3%	8	5.1%	39	24.7%	84	53.2%	25	15.8%
Previous Examinations	Q5.3	3	1.9%	2	1.3%	45	28.5%	86	54.4%	22	13.9%
Self-given Homework	Q5.4	14	8.9%	29	18.5%	45	28.7%	51	32.5%	18	11.5%

- **Tutorial Attendance**

As shown (Table 4.9), the majority of respondents (34.8 percent) claimed they had good tutorial attendance, whilst 25.3 percent claimed fair attendance; 22.8 percent claimed excellent attendance; and 11.4 percent indicated no attendance (18 students), compared with 5.7 percent claiming they had poor attendance. In a study by Horn and Ijansen (2009), it was also found that tutorial attendance had a far greater effect on grades than lecture attendance. This could have probably been due to smaller class sizes for tutorials, which may lead to a more active and effective learning process.

- **Class Tests**

In terms of academic performance based on class tests, the results (Table 4.9) show that 53.2 percent had Good; 24.7 percent had Fair; 15.8 percent had Excellent; and 5.1 percent had Poor class test results, while 1.3 percent indicated None. This showed that the majority (53.2 percent) claimed to have performed well in their class tests. However, two declined to evaluate their performance in class tests.

- **Previous examinations**

Table 4.9 showed that 54.4 percent of respondents had Good, 28.5 percent Fair, 13.9 percent Excellent and 1.9 percent None, with 1.3 percent indicating Poor when it comes to academic performance in previous examinations. The results showed that the majority (54.4 percent) claimed to have performed well in their previous examinations. It is to be expected that most current students would claim to have achieved good results in the past because they are the students who have got through to the third or fourth years. Unsuccessful students would have dropped out. However, three declined to evaluate their performance in previous examinations.

- **Self-given homework**

As illustrated (Table 4.9), the results that 32.5 percent indicated Good, 28.7 percent Fair, 18.5 percent Poor and 11.5 percent Excellent, while 8.9 percent indicated None with regard to academic performance achieved through self-given homework. This probably shows that there were challenges when it comes to self-given homework, with the majority at less than 50 percent when compared to previous results. Self-given homework is often associated with greater academic achievement, improving student memory and thinking skills. When a student does homework, it is an effective way to obtain good grades (Sinha, 2018). However, 14 students ticked ‘not applicable’, which means they do not use this mode of revising.

4.5.3 What was helpful in achieving one’s studies at DUT?

Various items were put forward (Table 4.10) as assisting students in achieving success with their studies, with the results illustrated below.

Table 4.10: What was helpful in achieving one's studies at DUT?

		Not Applicable		Least Helpful		Average		Helpful		Most Helpful	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Lectures	Q6.1	2	1.3%	18	11.4%	44	27.8%	60	38.0%	34	21.5%
Tutorials	Q6.2	23	14.5%	19	11.9%	18	11.3%	49	30.8%	50	31.4%
Printed Textbooks	Q6.3	9	5.7%	11	7.0%	37	23.4%	70	44.3%	31	19.6%
Online Study Material	Q6.4	26	16.7%	32	20.5%	41	26.3%	43	27.6%	14	9.0%
Use of Library	Q6.5	17	10.8%	23	14.6%	48	30.4%	47	29.7%	23	14.6%
Use of Computers	Q6.6	20	12.7%	21	13.4%	40	25.5%	41	26.1%	35	22.3%
Student Run Study Groups	Q6.7	11	6.9%	16	10.1%	34	21.4%	35	22.0%	63	39.6%
Past Exam Papers	Q6.8	2	1.3%	7	4.4%	26	16.5%	63	39.9%	60	38.0%
Regular Tests	Q6.9	5	3.2%	7	4.5%	48	30.6%	59	37.6%	38	24.2%

- **Lectures**

The results show that the majority (38 percent) stated that lectures were helpful, whilst 21 percent found lectures to be most helpful and 27.8 percent indicated that lectures were only average in being helpful, with 11.4 percent indicating that lectures were the least helpful and 1.3 percent stating that that lectures were not applicable. The results showed that the majority of students claimed lectures helped them. Two learners who found lectures to be inapplicable when it comes to them being helpful in achieving one's studies at DUT. The reason behind this is merely that those respondents prefer to study on their own as they are working elsewhere.

- **Tutorials**

As shown (Table 4.10), 31.4 percent of the respondents stated that tutorials were most helpful in achieving their studies at DUT, with 30.8 percent stating that tutorials are helpful. This implies that the majority (62.2 percent) of the respondents are positive about tutorials. However, 14.5 percent stated that tutorials were not applicable; 11.9 percent indicated tutorials as least helpful; and 11.3 percent stated that tutorials were average in helping them achieve their studies. The results showed that tutorials played

an important role in achieving one's studies at DUT. The 23 respondents who suggested that tutorials are inapplicable could be those who never attend tutorials mainly because they g*et al*l the help they need in lectures.

Tutoring was also found to play a significant role in academic performance. In their study, AbdulRaheem, *et al.* (2017) analysed the role of tutoring in improving academic success and highlighted that one of the advantages of tutoring is that learning is approached from multiple and missing perspectives, thus promoting understanding and ultimately, academic performance.

- **Printed textbooks**

The results (Table 4.10) show that 44.3 percent, 23.4 percent, 19.6 percent, seven percent and 5.7 percent respectively stated that printed textbooks were helpful, average, most helpful, least helpful and not applicable when it comes to being helpful in achieving their studies at DUT. The nine respondents who suggested that Printed textbooks are not applicable in achieving their studies could possibly have chosen this response due to the fact that they prefer using copy versions of study material, which are cheaper pirate copies run out on photo-copiers, or they possibly rely on soft copies of online material or lectures only.

- **Online study material**

As shown (Table 4.10), the respondents claimed that online study material was 27.6 percent helpful; 26.3 percent stated that online study material offered average assistance; while 20.5 percent found the material online to be least helpful; 16.7 percent did not find it applicable; and nine percent stated that it was most helpful in achieving one's studies at DUT. The availability of E-learning facilities at universities was also reported to promote understanding and academic performance (Castaño-Muñoz, Duart and Sancho-Vinuesa, 2014). There were a considerable number of respondents (26) who found online study material to be inapplicable in assisting with their studies. The main reason behind this is probably the fact that most learners use the printed study guides and study material that is given by lecturers.

- **Use of library**

The results on the use of the library show that 30.4 percent said it was average; 29.7 percent said it was helpful; 14.6 percent indicated it as least helpful, whilst 10.8 percent said it was not applicable in helping them achieve their studies at DUT. Ayaz, Ali, Khan, Ullah and Ullah (2017) indicated that the use of the library has a positive impact on students' academic performance as it improves a student's vocabulary, grammar, writing and spelling skills. However, seventeen respondents found the use of library inapplicable in relation to assisting learners to achieve their studies as they probably focus on the study material provided by lecturers.

- **Use of computers**

Of the respondents, 26.1 percent stated that the use of computers was helpful; 25.5 percent indicated their assistance was average; 22.3 percent stated that the use of computers was most helpful; with 13.4 percent stating it was least helpful and 12.7 percent of the respondents stating that it was not applicable to their studies. The 20 respondents who found computers inappropriate possibly do so because they do not have the money to purchase PCs and have to rely on printed materials.

- **Student-run study groups**

As shown (Table 4.10), student-run study groups were indicated to be most helpful by 39.6 percent of the respondents. In addition, 22 percent indicated that these groups were helpful and 21.4 percent stated that they were average. However, 10.1 percent stated that they were least helpful and 6.9 percent said they were not applicable in helping them achieve their studies at DUT. Literature states that students benefit from study group interactions, which have a significant positive impact on academic achievement. Moreover, lower performing students benefit from those with high ability (Castaño-Muñoz, Duart and Sancho-Vinuesa, 2014). Eleven respondents found student-run study groups inapplicable, probably due to the belief that group studying hampers creativity.

- **Past exam papers**

Table 4.10 shows that a majority (39.9 percent) of the respondents cited past exam papers as most helpful and helpful (38 percent). The results further show that 16.5 percent of respondents stated that past exam papers assisted them in an average manner, whilst 4.4 percent stated that these papers were least helpful and 1.3 percent stated that past exam papers were not applicable. The 2 respondents who found past exam papers to be inapplicable probably prefer to study the whole scope and not focus on questions from past exam papers only.

- **Regular tests**

It was indicated by 37.6 percent of respondents that regular tests were helpful. A further 30.6 percent stated that they helped in an average way; 24.2 percent stated that they were most helpful and 4.5 percent stated they were least helpful, with 3.2 percent indicating that they were not applicable for achieving their studies at DUT. Some researchers claim that regular tests cannot be said to affect final academic performance, since some students suffer different forms of challenges and thus regularly experience interruption in tests and issues in planning for tests (Yusefzadeh *et al.,* 2019). The 5 respondents who found regular tests inapplicable believe that they do not play a major role in affecting the final academic performance, which is not the case in most HET courses as class tests and assignments contribute to the final year-mark.

It is important to note the not applicable (N/A) columns for tutorials, use of library (17), use of computers (20), online studies (26) and student-run groups (11). These students appear to be relying on lectures, textbooks and past exam papers only to study for their courses. Most of these students are either part-time students with other jobs, or from rural areas where poor Wi-Fi disallows computer use. Further research by qualitative methods (interviewsor open questions) would be needed to probe exactly why these students disengage from the learning media on offer.

4.5.4 Personal evaluation

Respondents had to contribute their personal evaluation of what enables them to achieve success in their studies.

Table 4.11: Respondents' personal evaluation

		Strongly Disagree		*Disagree*		*Neutral*		*Agree*		*Strongly Agree*	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
I actively participate in the answering of questions and participate in class.	Q7.1	14	8.9 %	26	16.6 %	60	38.2 %	45	28.7 %	12	7.6 %
I give myself extra study hours after the lecture outside school.	Q7.2	8	5.1 %	28	17.7 %	34	21.5 %	57	36.1 %	31	19.6 %
I have difficulty understanding the subject terminology used at times.	Q7.3	18	11.4 %	35	22.2 %	55	34.8 %	34	21.5 %	16	10.1 %
The library does not have enough reading material.	Q7.4	23	14.6 %	42	26.6 %	59	37.3 %	22	13.9 %	12	7.6 %
There is need for extra Financial Management classes	Q7.5	15	9.6 %	10	6.4 %	17	10.8 %	23	14.6 %	92	58.6 %
Teaching methods used in FM should be revised	Q7.6	17	10.9 %	11	7.1 %	31	19.9 %	33	21.2 %	64	41.0 %

- *I actively participate in the answering of questions and participate in class.*

Table 4.11 above illustrates agreement by 36.3 percent of the respondents, whilst 38.2 percent were neutral and 25.5 percent disagreed that they "actively participate in the answering of questions and participate in class". The findings of the study also showed that the lecturer's teaching style and student interaction enhances the grasping of concepts and ultimately, academic performance (Heinesen, 2010).

- *I give myself extra study hours after the lecture outside school.*

The results illustrate that 55.7 percent agreed, 22.8 percent disagreed and 21.5 percent were neutral to the statement: "I give myself extra study hours after the lecture outside school".

- *I have difficulty understanding the subject terminology used at times.*

As shown (Table 4.11), 34.8 percent indicated neutral, 33.6 percent disagreed and 31.6 percent agreed that they “have difficulty understanding the subject terminology used at times”.

- *The library does not have enough reading material.*

Disagreement was indicated by 41.2 percent of the respondents, with 37.3 percent that indicated neutral and 21.5 percent that agreed that “the library does not have enough reading material”. The availability of sufficient equipment, books, facilities and human resources is critical to the academic performance of students. However, poor infrastructure, inadequate teaching staff and inadequate equipment are often common at universities (Osaikhiuwu, 2014).

- *There is need for extra Financial Management classes.*

The majority (73.2 percent) of respondents agreed, 16 percent disagreed and 10.8 percent were neutral with regard to there being a need for extra FM classes. The high agreement level reflects that students have challenges with numerous subjects, such as FM and Mathematics.

- *Teaching methods used in FM should be revised.*

Respondents were 62.2 percent in agreement, with 19.9 percent neutral and 18 percent disagreeing that the teaching methods used in FM should be revised. Heinesen (2010) further confirmed that the teacher’s ability and competencies significantly improved academic performance. In addition, the lecturer’s teaching style and methods used are important.

4.6 CROSS-TABULATIONS

The traditional approach to reporting a result requires a statement of statistical significance. A **p-value** is generated from a **test statistic** (Fisher’s Exact Test). A significant result is indicated with "$p < 0.05$" (Bind and Rubin 2020). A second Chi

square test was performed to determine whether there was a statistically significant relationship between the variables (rows vs columns). The null hypothesis states that there is no association between the two, whilst the alternate hypothesis indicates an association. The discussion in this section is ONLY of the factors that showed up as significant after the researcher had run all the variables through Chi Sq.

Personal variables

Table 4.12: Gender and Attendance

Gender * Tutorial Attendance								
Crosstab								
		Tutorial Attendance						Total
			None	Poor	Fair	Good	Excellent	
Gender	Male	Count	6	6	21	16	9	58
		% within G	10,3%	10,3%	36,2%	27,6%	15,5%	100,0%
		% within Tu	33,3%	66,7%	52,5%	29,1%	25,0%	36,7%
		% of Total	3,8%	3,8%	13,3%	10,1%	5,7%	36,7%
	Female	Count	12	3	19	39	27	100
		% within G	12,0%	3,0%	19,0%	39,0%	27,0%	100,0%
		% within Tu	66,7%	33,3%	47,5%	70,9%	75,0%	63,3%
		% of Total	7,6%	1,9%	12,0%	24,7%	17,1%	63,3%
Total		Count	18	9	40	55	36	158
		% within G	11,4%	5,7%	25,3%	34,8%	22,8%	100,0%
		% within Tu	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
		% of Total	11,4%	5,7%	25,3%	34,8%	22,8%	100,0%

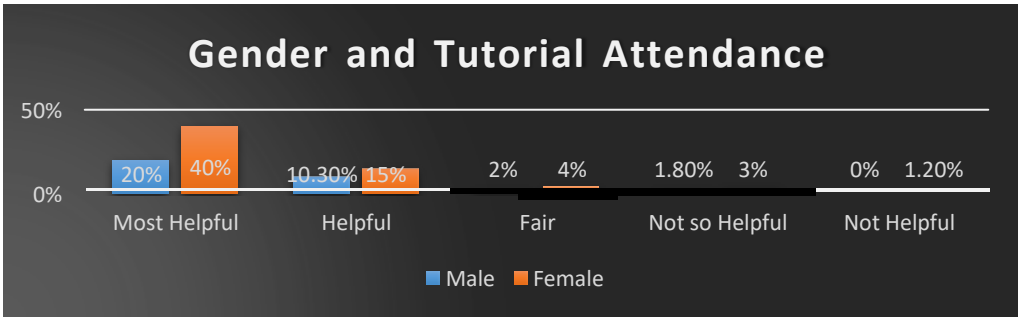

Figure 4-8: Gender and Attendance

The p-value between “Gender” and “Tutorial Attendance” is 0.024. This implies that there is a connection between the factors in Table 4.12 above, as well as in the

Annexures (Annexure G) section. In other words, the gender of the respondent did play a significant role in terms of whether they attended tutorials. It is seen that significantly more females believed that their tutorial attendance was good to excellent (66 percent of 100 females who took part in the study), while only 43.1 percent of males (26 men from the 60 who took part in the study) believed the same. This could be because females are more sociable and like tutorials more when compared to males. Females being present in most tutorials could be attributed to the need they feel to put in extra effort when it comes to looking after themselves and their needs, especially in African societies (Abdul *et al*., 2017). However, males tend not to care, with females being theones who strive to improve themselves.

Gender and Regular tests

Table 4.13: Gender * Regular tests

Gender * Regular tests								
Crosstab								
			Regular tests					Total
			Not applicab	east helpfu	Average	Helpful	Most helpful	
Gender	Male	Count	5	1	16	23	14	59
		% within G	8,5%	1,7%	27,1%	39,0%	23,7%	100,0%
		% within R	100,0%	14,3%	33,3%	39,0%	36,8%	37,6%
		% of Total	3,2%	0,6%	10,2%	14,6%	8,9%	37,6%
	Female	Count	0	6	32	36	24	98
		% within G	0,0%	6,1%	32,7%	36,7%	24,5%	100,0%
		% within R	0,0%	85,7%	66,7%	61,0%	63,2%	62,4%
		% of Total	0,0%	3,8%	20,4%	22,9%	15,3%	62,4%
Total		Count	5	7	48	59	38	157
		% within G	3,2%	4,5%	30,6%	37,6%	24,2%	100,0%
		% within R	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
		% of Total	3,2%	4,5%	30,6%	37,6%	24,2%	100,0%

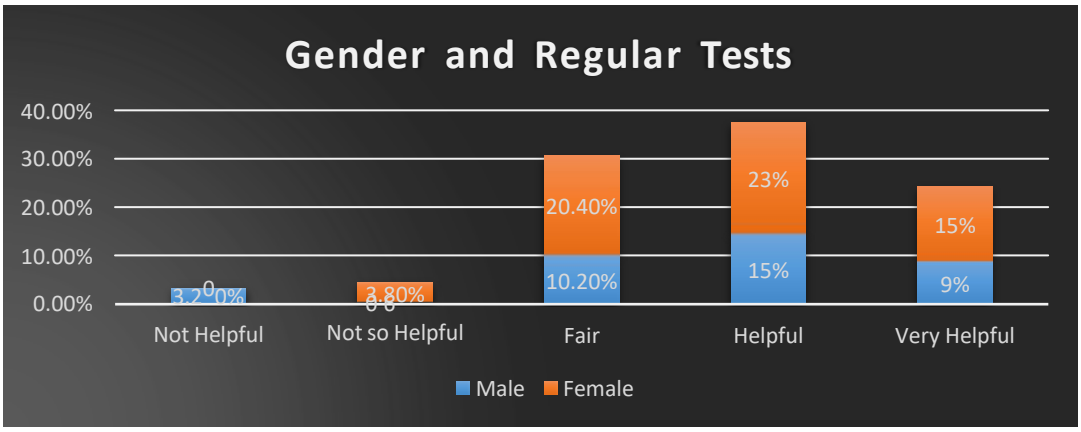

Figure 4-9: Gender and Regular Tests

It emerged that there is a significant relationship between gender and regular tests. The results were p=0.039. It is hard to see from Table 4.13 above where this sig. result comes from as the % within each gender group for helpful and very helpful is almost the same (males= 62.7, females= 61.2). It possibly comes from the rather surprising figures of 8.5% of the males responding that regular tests are not applicable, whereas no females claimed this. Females tend to care more about their schoolwork and devote their time to their studies (Abdul *et al.,* 2017). There were also many females in the sample, which could have contributed to this finding. This information is also clearly illustrated in Table 4.13 above.

Marital Status and Lectures

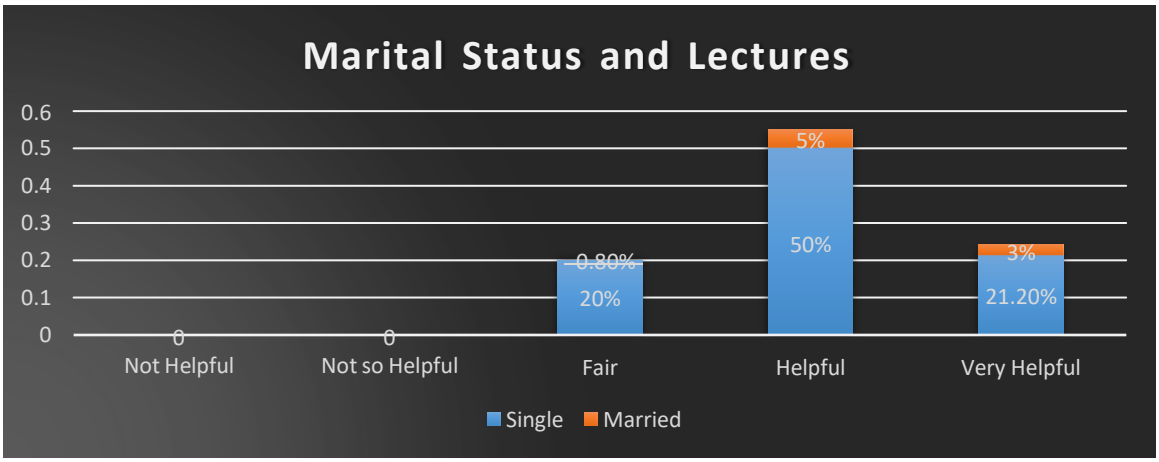

Figure 4-10: Marital Status and Lectures

Table 4.14: Marital Status and Lectures

Marital Status * Lectures							
Crosstab							
		Lectures					Total
		Not applicabl	Least helpfu	Average	Helpful	Most helpful	
Marital Stat	Single	Count	1	15	37	47	31	131
		% within Ma	0.8%	11.5%	28.2%	35.9%	23.7%	100.0%
		% within Le	50.0%	83.3%	84.1%	78.3%	91.2%	82.9%
		% of Total	0.6%	9.5%	23.4%	29.7%	19.6%	82.9%
	Married	Count	0	2	6	11	3	22
		% within Ma	0.0%	9.1%	27.3%	50.0%	13.6%	100.0%
		% within Le	0.0%	11.1%	13.6%	18.3%	8.8%	13.9%
		% of Total	0.0%	1.3%	3.8%	7.0%	1.9%	13.9%
	Divorced/W	Count	1	1	1	2	0	5
		% within Ma	20.0%	20.0%	20.0%	40.0%	0.0%	100.0%
		% within Le	50.0%	5.6%	2.3%	1.7%	0.0%	2.5%
		% of Total	0.6%	0.6%	0.6%	0.6%	0.0%	2.5%
Total		Count	2	18	44	60	34	158
		% within Ma	1.3%	11.4%	27.8%	38.0%	21.5%	100.0%
		% within Le	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	1.3%	11.4%	27.8%	38.0%	21.5%	100.0%

The p-value between marital status and lectures is 0.022, as seen in Table 4 in the appendix. The results further showed that the majority of students attending lectures are single. The within-category percentage of Married - helpful is 50% and most helpful 13%, to give a total of 63% of the total of married (these represent 8 % of the total sample). On the other hand, the percentage of Single learners who found lectures to be helpful is 35.9% and 23.7 % found lectures to be most helpful, which makes a total 59.6 % of the Single learners. Looking along this row of the % evaluation of lectures, it can be seen that on the whole cohort of single learners value lectures less than the married ones. This is an odd finding as most of the full-timers live on campus and can easily attend lectures. Maybe they find other campus activities more engaging? There are 2 respondents whose answers indicate that they never attend lectures.

Pre-DUT circumstances

Grade of Matric Pass and Parent/Guardian Involvement

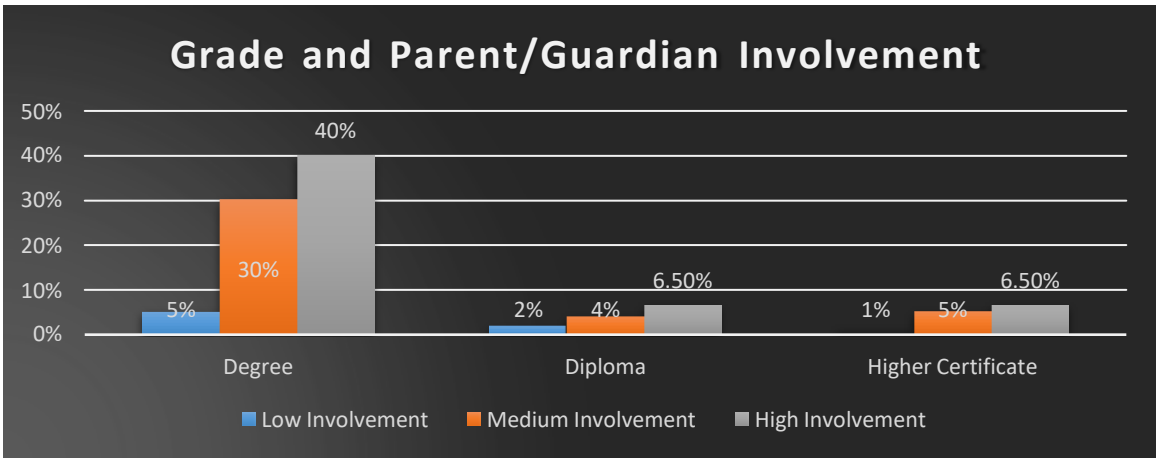

Figure 4-11: Grade of Matric Pass and Parent/Guardian Involvement

Table 4.15: Grade of Matric Pass and Parent/Guardian Involvement

Chi-Square Tests

	Value	df	Significancct	Sig. (2-sict	Sig. (1-sioint	Probability
Pearson Ch	10.995[a]	6	0.089	0.081		
Likelihood F	11.389	6	0.077	0.102		
Fisher's Ex	10.137			0.082		
Linear-by-L	6.030[b]	1	0.014	0.014	0.007	0.002
N of Valid (	122					

a. 5 cells (41.7%) have expected count less than 5. The minimum expected count is .81.

b. The standardized statistic is -2.456.

The p-value between “What was the grade of your matric pass?” and “Involvement of parents/guardians in my schoolwork” is 0.081. This shows a significant relationship between the two variables. The involvement of parents plays a significant role in passing matric. Students who had a Bachelor pass had a high level of involvement (72.7 percent) by parents/guardians. This showed that parental involvement is important in determining the grade achieved. The above figure illustrates the

performance of learners in relation to the involvement of their parents/guardians in their schoolwork. This information is also clearly illustrated in Table 4.15: Matric grade * Parent involvement, as well as in Figure 4.11 above.

The p-value between “Admission status” and “Income status of my parents/guardians” is 0.044. This means that there is a significant relationship between the variables. The results show that the majority (75 percent) were doing a Diploma, whilst 12.5 percent had enrolled for a Degree and 12.5 percent for a Higher Certificate. Many students obtain a Matric pass that would entitle them to do a Bachelor’s Degree, but they opt for a diploma. This information is elaborated clearly in Table 4.15 and Figure 4.11 above.

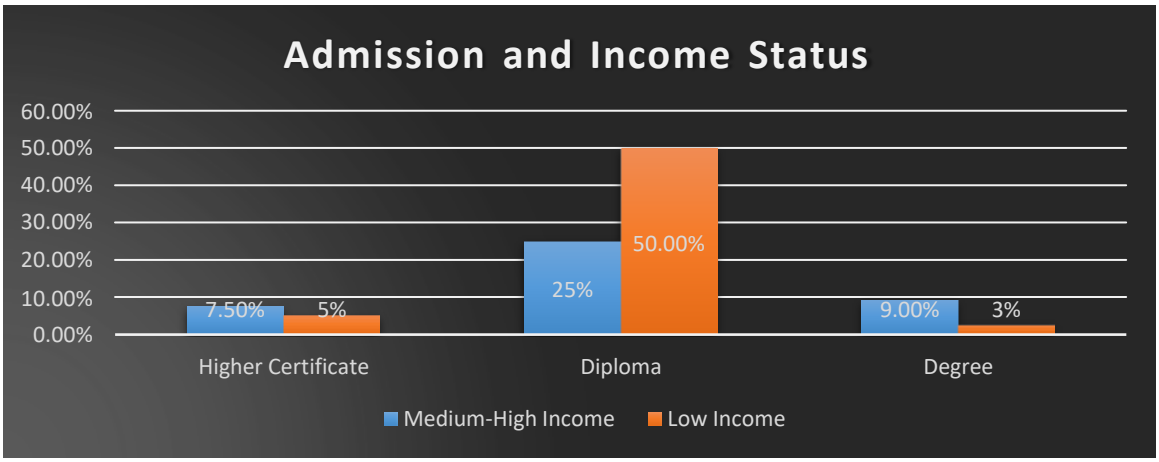

Figure 4-12: Admission and Income Status

Figure 4.12 shows that the income status of the parents has an influence on admission. Medium- to Higher-income earning parents are in a better position to support their children in getting admitted into university as compared to Low income earning parents/guardians. Mostly, learners who register for Degrees or Higher Certificates will be paying for themselves. The higher enrolment rate in the Diploma can be also largely attributed to the availability of the NSFAS program that pays the tuition for many scholars in South Africa, up to Diploma level. Figure 4.12 above illustrates this clearly.

Mode of Study and Previous Examinations

Table 4.16: Mode of Study and Previous Examinations

Mode of Study * Previous Examinations

Crosstab

		Previous Examinations					Total
		None	Poor	Fair	Good	Excellent	
Mode of St	Part Time	Count	3	1	17	43	5	69
		% within Mc	4.3%	1.4%	24.6%	62.3%	7.2%	100.0%
		% within Pr	100.0%	50.0%	37.8%	50.0%	22.7%	43.7%
		% of Total	1.9%	0.6%	10.8%	27.2%	3.2%	43.7%
	Full Time	Count	0	1	28	43	17	89
		% within Mc	0.0%	1.1%	31.5%	48.3%	19.1%	100.0%
		% within Pr	0.0%	50.0%	62.2%	50.0%	77.3%	56.3%
		% of Total	0.0%	0.6%	17.7%	27.2%	10.8%	56.3%
Total		Count	3	2	45	86	22	158
		% within Mc	1.9%	1.3%	28.5%	54.4%	13.9%	100.0%
		% within Pr	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	1.9%	1.3%	28.5%	54.4%	13.9%	100.0%

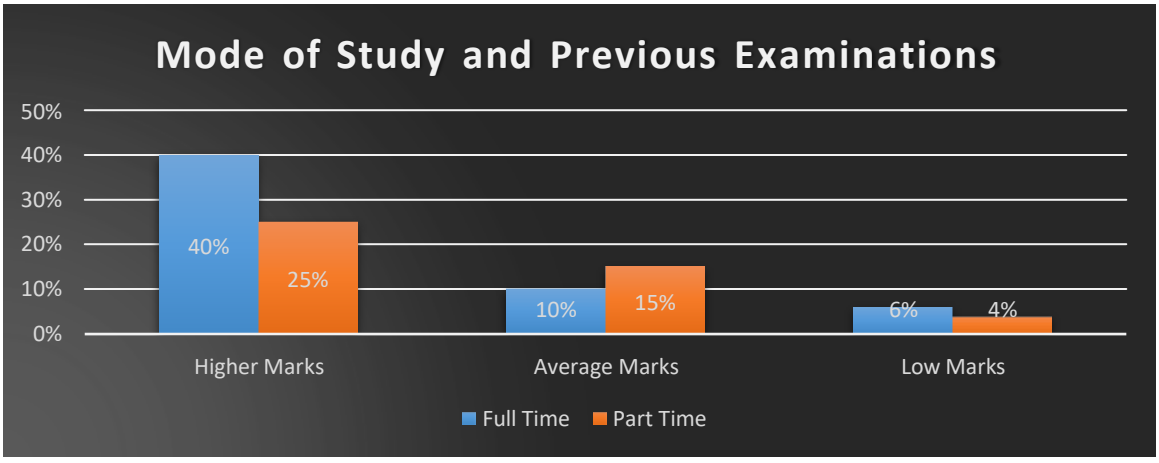

Figure 4-13: Mode of Study and Previous Examinations

A significant relationship between “mode of study” and “previous examinations” was found to exist (p=0.025). These previous examinations were written by both full-time and part-time learners, but 3 stated ‘inapplicable’, which could either imply that learners are reluctant to give out their marks or they might not remember them. Some students may have an incorrect view of their results compared to an actual look at the overall scores of these courses. It is possible that some students are claiming ‘good or excellent’ when in fact their performance was average. Further research using the actual student marks instead of the impression of learners might need to be conducted.

Proportionately more studying full-timers claimed to have achieved higher marks when compared to part-time students. The reason behind this finding could be the fact that full-time students spend most of their time focusing on school work. Most of the full-time students at DUT stay in student residences which are conveniently located close to the campus (or transport is provided) and have study rooms at their respective accommodation. This might not be the case with part-time learners as some of them might be staying far from campus and might have other commitments to attend to (work and family, to mention but a few). Due to these reasons, the results of full-time students are likely going to be higher than part-time students.

Type of School and Parent’s/Guardian’s Educational Level

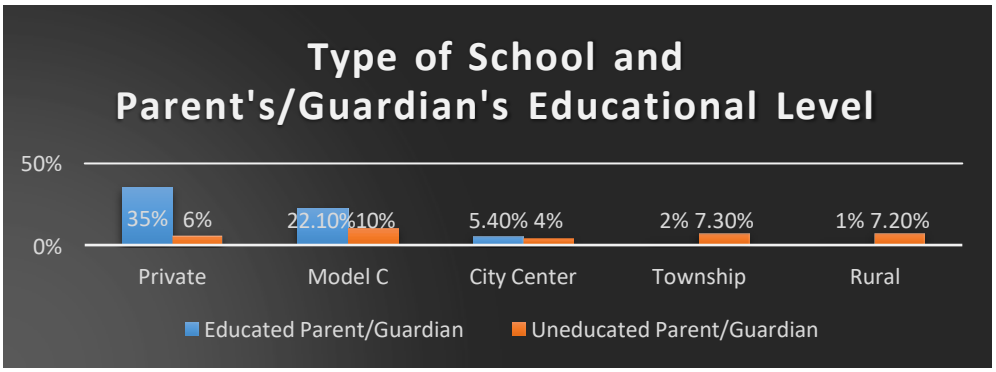

Figure 4-14: Type of School and Parent’s/Guardian’s Educational Level

Table 4.17: Type of School and Parent's/Guardian's Educational Level

Type of school * Educational Level of my parents/ guardians

Crosstab

			Educational Level of my parents/ guardians			Total
			Low	Medium	High	
Type of scl	Rural	Count	24	21	4	49
		% within Typ	49.0%	42.9%	8.2%	100.0%
		% within Edı	38.7%	28.4%	18.2%	31.0%
		% of Total	15.2%	13.3%	2.5%	31.0%
	Township	Count	24	25	5	54
		% within Typ	44.4%	46.3%	9.3%	100.0%
		% within Edı	38.7%	33.8%	22.7%	34.2%
		% of Total	15.2%	15.8%	3.2%	34.2%
	City Centre	Count	9	20	3	32
		% within Typ	28.1%	62.5%	9.4%	100.0%
		% within Edı	14.5%	27.0%	13.6%	20.3%
		% of Total	5.7%	12.7%	1.9%	20.3%
	Model C	Count	5	6	8	19
		% within Typ	26.3%	31.6%	42.1%	100.0%
		% within Edı	8.1%	8.1%	36.4%	12.0%
		% of Total	3.2%	3.8%	5.1%	12.0%
	Private	Count	0	2	2	4
		% within Typ	0.0%	50.0%	50.0%	100.0%
		% within Edı	0.0%	2.7%	9.1%	2.5%
		% of Total	0.0%	1.3%	1.3%	2.5%
Total		Count	62	74	22	158
		% within Typ	39.2%	46.8%	13.9%	100.0%
		% within Edı	100.0%	100.0%	100.0%	100.0%
		% of Total	39.2%	46.8%	13.9%	100.0%

Chi-Square Tests

	Value	df	Significance Sig. (2-sid Sig. (1-sided Probability			
Pearson Ch	24.804[a]	8	0.002	0.002		
Likelihood R	21.487	8	0.006	0.008		
Fisher's Ex	20.078			0.005		
Linear-by-L	13.478[b]	1	0.000	0.000	0.000	0.000
N of Valid C	158					

a. 5 cells (33.3%) have expected count less than 5. The minimum expected count is .56.

b. The standardized statistic is 3.671.

There was also a significant relationship between "type of school" and "educational level of my parents/ guardians", with a result of p=0.005, as seen in the above table. The children in rural schools have the highest % of parents whose own education was low or medium. None of those whose children are in private schools had low education.

This implies that the parents' or guardians' level of education affects the type of school the child attends. People who are educated usually know the value of education and

tend to send their children to the best schools in their areas. On the other hand, It is hard to believe as true that township and rural parents are uneducated or have low educational levels, even if it relates to only this study. As a matter of fact, there are rich rural and township parents who can afford sending their children to private schools, and there are many poor and uneducated parents who send their children to X-model C schools. Therefore, the statement 'This implies that the parents' or guardians' level of education affects the type of school the child attends' is partially true.

Type of School and Parent's/Guardian's Income Status

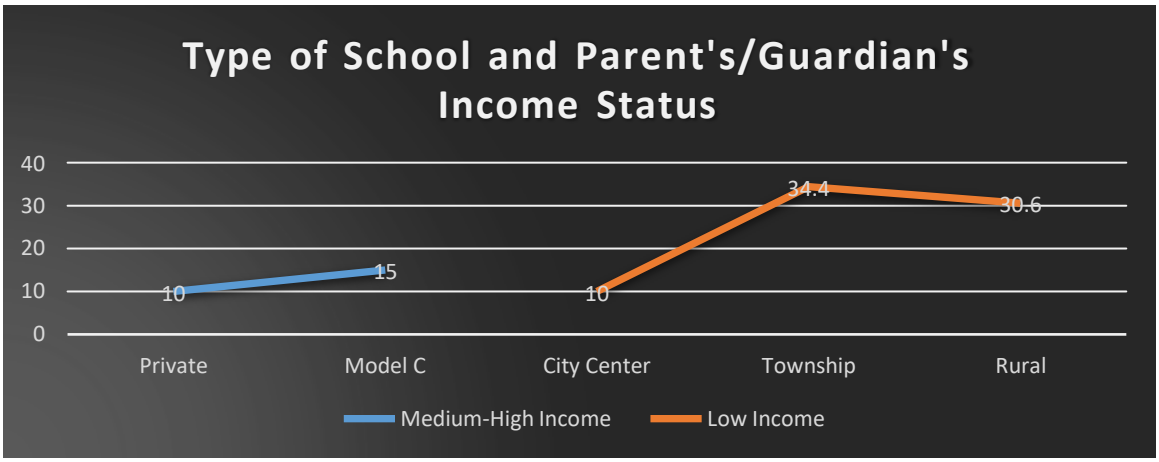

Figure 4-15: Type of School and Parent's/Guardian's Income Status

Table 4.18: School type * Parent's income status

Type of school * Income status of my parents/ guardian						
Crosstab						
		Income status of my parents/ guardian				Total
			Low	Medium	High	
Type of sch	Rural	Count	36	10	2	48
		% within Ty	75,0%	20,8%	4,2%	100,0%
		% within In	43,4%	15,2%	25,0%	30,6%
		% of Total	22,9%	6,4%	1,3%	30,6%
	Township	Count	29	24	1	54
		% within Ty	53,7%	44,4%	1,9%	100,0%
		% within In	34,9%	36,4%	12,5%	34,4%
		% of Total	18,5%	15,3%	0,6%	34,4%
	City Centre	Count	13	17	2	32
		% within Ty	40,6%	53,1%	6,3%	100,0%
		% within In	15,7%	25,8%	25,0%	20,4%
		% of Total	8,3%	10,8%	1,3%	20,4%
	Model C	Count	5	11	3	19
		% within Ty	26,3%	57,9%	15,8%	100,0%
		% within In	6,0%	16,7%	37,5%	12,1%
		% of Total	3,2%	7,0%	1,9%	12,1%
	Private	Count	0	4	0	4
		% within Ty	0,0%	100,0%	0,0%	100,0%
		% within In	0,0%	6,1%	0,0%	2,5%
		% of Total	0,0%	2,5%	0,0%	2,5%
Total		Count	83	66	8	157
		% within Ty	52,9%	42,0%	5,1%	100,0%
		% within In	100,0%	100,0%	100,0%	100,0%
		% of Total	52,9%	42,0%	5,1%	100,0%

Furthermore, a significant relationship was determined between “type of school” and “income status of parents/ guardians”, where p=0.000. The results showed that the majority (34.4 percent) attended township schools and 30.6 percent came from rural schools due to their parents’ income. This means that the income of the parents or guardian determines the type of school that the child attends. Some schools are more expensive, hence they require the financial ‘muscle’ of the parents or guardians. Normally, schools in the city centre are generally more expensive compared to those in rural areas, thus clearly showing the relationship between the income status of parents/guardians and type of school their child attends, as they will be responsible for paying the fees. This information is clearly illustrated in Figure 4.15 as well as Table 4: 18: School type * Parent’s income status.

Type of School and Difficulty Understanding Terminology

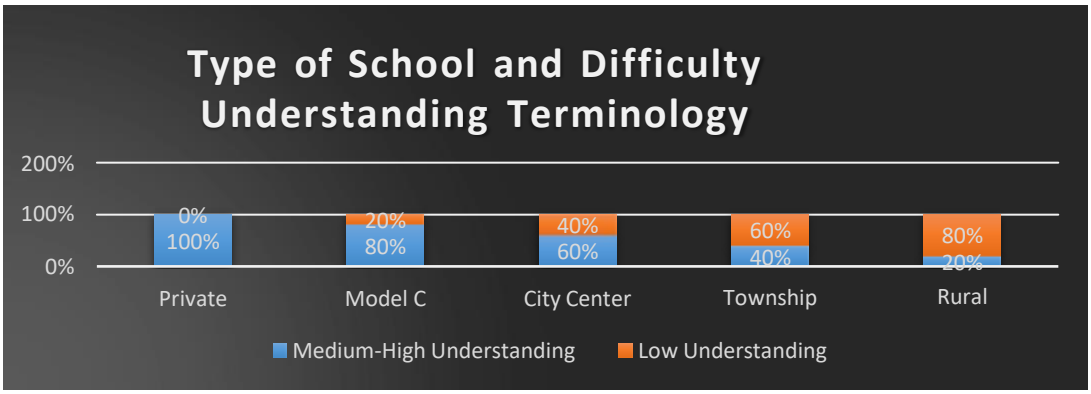

Figure 4-16: Type of School and Difficulty in Understanding Terminology

In addition, a critical relationship was found between “type of school” and “I have difficulty understanding the subject terminology used at times”, where p=0.001. The students from rural schools (80 percent of the 49 respondents) and township schools (60 percent of the 55 respondents) encountered challenges in understanding terminology. In addition, 40% of those attending city schools claimed low understanding; while of those attending Model C schools, only 20 % claimed low understanding. On the other hand, the students who attended private school had no problems understanding terminology at university (100 per cent of the 4 respondents).

These results are clear evidence that schools in the DUT catchment area can be ranked according to how they utilize the language of teaching and learning (English). Black Middle-class parents who can afford it are sending their children to either City schools or Model C schools because these do achieve results. Students who attend schools where there are language issues tend to have difficulties in understanding terminology when they go to university. This stems from the background they have with different school types. Figure 4.16 above provides an illustration of this relationship.

Grade of Matric and Type of School

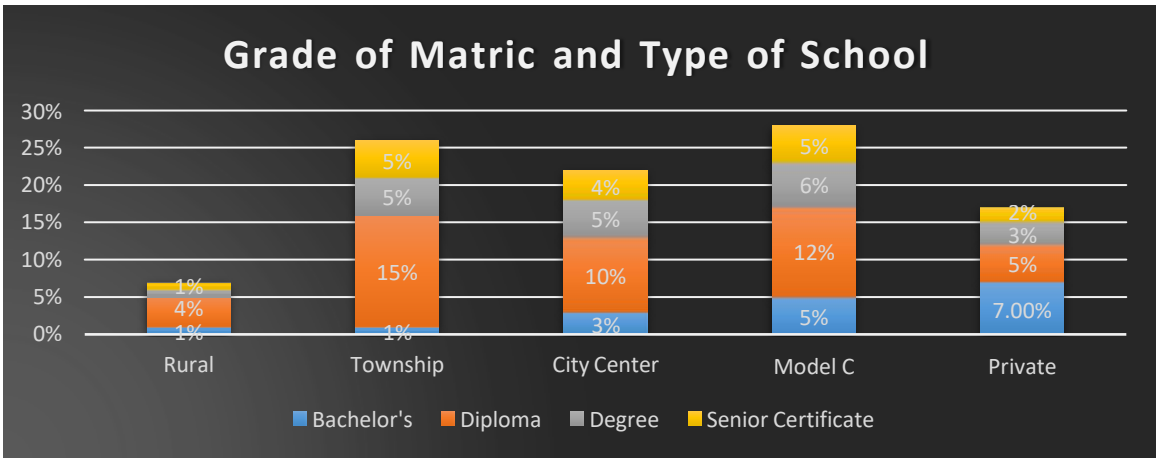

Figure 4-17: Grade of Matric and Type of School

In addition, a significant relationship was determined to exist between “grade of matric” and “type of school”, with a p-value of 0.007. Most of the students with low grades were from rural and township schools, as seen in the figure above. This might mean that different types of schools have different grades of matric (Theron, 2012). For example, rural schools tend to have low grades because of the conditions whilst other types have better grades (Abbasi and Mir, 2012). This goes to show the type of relationship that exists between the level of education and school type. Figure 4.17 above provides an illustration of the relationship.

DUT education factors

Mode of Study and Tutorials

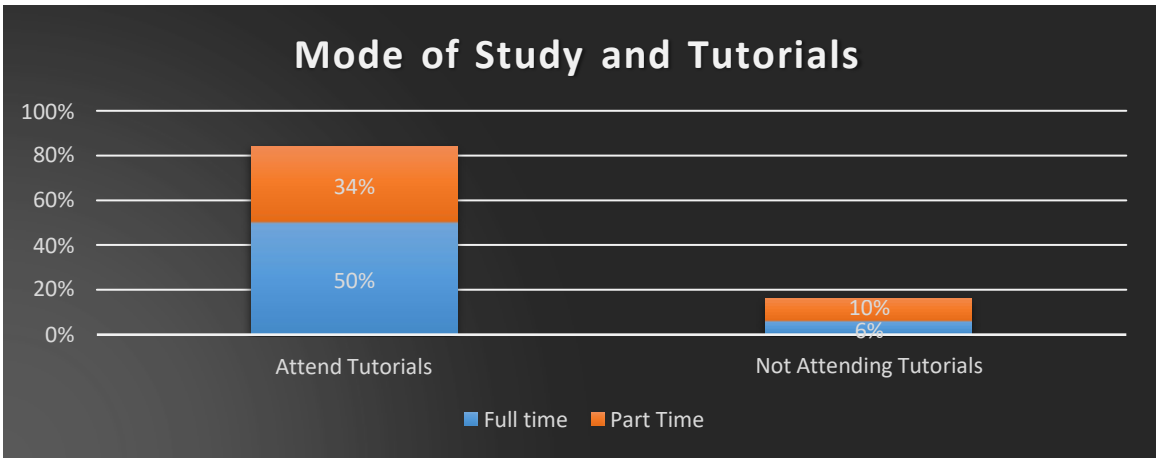

Figure 4-18: Mode of Study and Tutorials

A significant relationship was found to exist between “mode of study” and “tutorials”, where p=0.008. It is apparent from the table below that proportionately more part-timers (63.7%) claimed that their tutorial attendance was ‘good or excellent’ compared to only 52.8% of the full-timers. Furthermore, some students never attend tutorials, namely 5 of the part-timers compared to 13 of the full-timers. Tutorials not only offer an opportunity for students to ask the tutor questions where they lack understanding, the tutors also teach at a more reasonable pace in comparison to lectures. Therefore, this result shows that full-timers may be less diligent than part-timers at using what DUT has to offer.

Table 4.19: Mode of study * Tutorial attendance

Mode of Study * Tutorial Attendance							
Crosstab							
		Tutorial Attendance					Total
			None	Poor	Fair	Good	Excellent	
Mode of St	Part Time	Count	5	5	15	29	15	69
		% within Mc	7.2%	7.2%	21.7%	42.0%	21.7%	100.0%
		% within Tu	27.8%	55.6%	37.5%	52.7%	41.7%	43.7%
		% of Total	3.2%	3.2%	9.5%	18.4%	9.5%	43.7%
	Full Time	Count	13	4	25	26	21	89
		% within Mc	14.6%	4.5%	28.1%	29.2%	23.6%	100.0%
		% within Tu	72.2%	44.4%	62.5%	47.3%	58.3%	56.3%
		% of Total	8.2%	2.5%	15.8%	16.5%	13.3%	56.3%
Total		Count	18	9	40	55	36	158
		% within Mc	11.4%	5.7%	25.3%	34.8%	22.8%	100.0%
		% within Tu	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	11.4%	5.7%	25.3%	34.8%	22.8%	100.0%

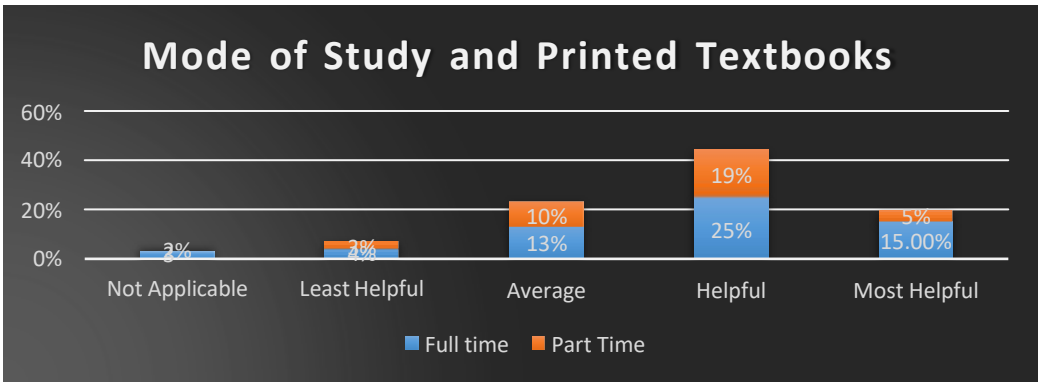

Figure 4-19: Mode of Study and Printed Textbooks

Table 4.20: Mode of Study and Printed Textbooks

Mode of Study * Printed textbooks							
Crosstab							
		Printed textbooks					Total
		Not applicab	east helpfu	Average	Helpful	Most helpful	
Mode of St	Part Time	Count	1	8	21	28	11	69
		% within Mo	1.4%	11.6%	30.4%	40.6%	15.9%	100.0%
		% within Pr	11.1%	72.7%	56.8%	40.0%	35.5%	43.7%
		% of Total	0.6%	5.1%	13.3%	17.7%	7.0%	43.7%
	Full Time	Count	8	3	16	42	20	89
		% within Mo	9.0%	3.4%	18.0%	47.2%	22.5%	100.0%
		% within Pr	88.9%	27.3%	43.2%	60.0%	64.5%	56.3%
		% of Total	5.1%	1.9%	10.1%	26.6%	12.7%	56.3%
Total		Count	9	11	37	70	31	158
		% within Mo	5.7%	7.0%	23.4%	44.3%	19.6%	100.0%
		% within Pr	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	5.7%	7.0%	23.4%	44.3%	19.6%	100.0%

In addition, there was a significant relationship between “mode of study” and “printed textbooks”, where p=0.022. This implies that printed textbooks or hardcopies are helpful in learning. Students appear to prefer printed textbooks for their ease of use and these are a more cost-effective way of learning. The majority (53% percent) of the full-time students stated that printed textbooks were either average, helpful or most helpful. Figure 4.19 as well as Table 4.20: Study mode * Printed text books in Annexure G clearly illustrate this. Both groups in Annexure G found textbooks helpful or very helpful, namely part-time 55% and full-time 69%. Moreover, nine students responded “not applicable”, which means they are not using the textbook!

Table 4.21: Mode of study and Involvement of my parents/guardians

Mode of Study * Involvement of my parents/ guardians in my school work				
Crosstab				
	Involvement of my parents/ guardians in my school w			
			Low	Medium
Mode of St	Part Time	Count	40	19
		% within M	57.1%	2
		% within In	58.0%	
		% of Total	25.	
	Full Time	Count		
		% withi		
		%		
Total				

A significant relationship was also found between “mode of study” and “involvement of my parents/ guardians in my school”, with the result p=0.006 as illustrated in the table below. This means that the parents’ or guardians’ involvement in the support of the student at school affects the mode of study. They get better matric and are accepted for full-time study. The majority (33.3 %) who had high parental involvement in their school are full-time students, whilst those with low parental involvement were part-time students.

Furthermore, the Chi-square test reflected a significant relationship between “year of study” and “involvement of parents/guardians in my schoolwork”, with a result of p=0.008, as shown in the table below. The results showed that parents’ involvement at school level was more amongst students in their third year of study as compared to the fourth years. This could mean that fourth years got less help from their parents when at school, which is not the case with third years when they were still doing their Matric. This is clearly illustrated in the table below. This could mean that between these two cohorts, more parents were realizing, for the younger cohort that help with their school

work produced better matric grades.

Table 4.22: Year of study and involvement of parents

Year of study * Involvement of my parents/ guardians in my school work

Crosstab

			Involvement of my parents/ guardians in my school work			Total
			Low	Medium	High	
Year of stu	Second	Count	0	0	0	0
		% within Ye	0.0%	0.0%	100.0%	100.0%
		% within Inv	0.0%	0.0%	2.5%	0.6%
		% of Total	0.0%	0.0%	0.6%	0.6%
	Third	Count	21	25	23	68
		% within Ye	30.9%	36.8%	32.4%	100.0%
		% within Inv	30.4%	53.2%	55.0%	43.6%
		% of Total	13.5%	16.0%	14.1%	43.6%
	Fourth	Count	48	22	17	87
		% within Ye	55.2%	25.3%	19.5%	100.0%
		% within Inv	69.6%	46.8%	42.5%	55.8%
		% of Total	30.8%	14.1%	10.9%	55.8%
Total		Count	69	47	40	156
		% within Ye	44.2%	30.1%	25.6%	100.0%
		% within Inv	100.0%	100.0%	100.0%	100.0%
		% of Total	44.2%	30.1%	25.6%	100.0%

Chi-Square Tests

	Value	df	Significance	Sig. (2-sid	Sig. (1-sid	Point Probability
Pearson C	12.122[a]	4	0.016	0.007		
Likelihood	12.093	4	0.017	0.008		
Fisher's Ex	11.670			0.008		
Linear-by-L	9.450[b]	1	0.002	0.002	0.001	0.001
N of Valid C	156					

a. 3 cells (33.3%) have expected count less than 5. The minimum expected count is .26.

b. The standardized statistic is -3.074.

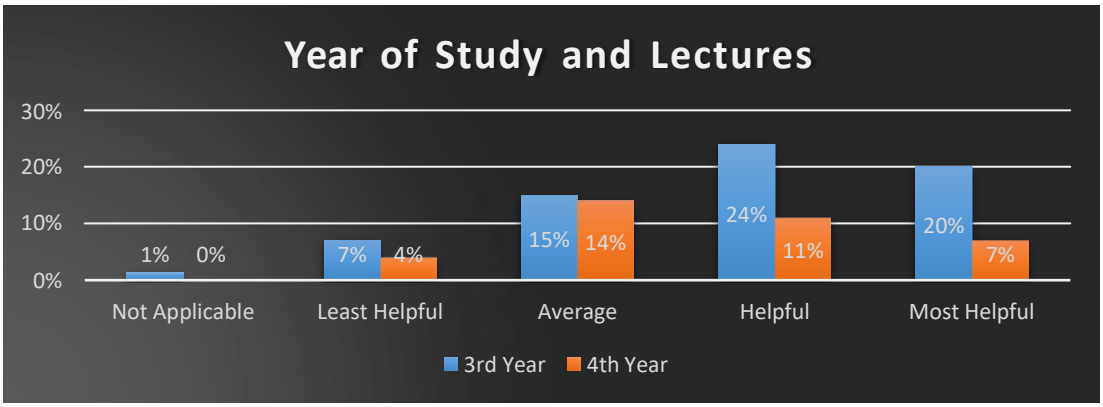

Figure 4-20: Year of Study and Lectures

Table 4.23: Year of Study and Lectures

Year of study * Lectures							
Crosstab							
		Lectures					Total
		Not applicabl	east helpfu	Average	Helpful	Most helpful	
Year of stu	Second	Count	0	0	0	0	0	0
		% within Ye	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		% within Le	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		% of Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Third	Count	0	3	21	25	21	70
		% within Ye	0.0%	4.3%	30.0%	35.7%	30.0%	100.0%
		% within Le	0.0%	16.7%	48.8%	41.7%	61.8%	44.6%
		% of Total	0.0%	1.9%	13.4%	15.9%	13.4%	44.6%
	Fourth	Count	2	15	22	35	12	86
		% within Ye	2.3%	17.4%	25.6%	40.7%	14.0%	100.0%
		% within Le	100.0%	83.3%	51.2%	58.3%	35.3%	54.8%
		% of Total	1.3%	9.6%	14.0%	22.3%	7.6%	54.8%
Total		Count	2	18	43	60	34	157
		% within Ye	1.3%	11.5%	27.4%	38.2%	21.7%	100.0%
		% within Le	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	1.3%	11.5%	27.4%	38.2%	21.7%	100.0%

Chi-Square Tests

	Value	df	Significanct Sig. (2-sict Sig. (1-siint Probability			
Pearson C	16.219[a]	8	0.039	0.025		
Likelihood	17.129	8	0.029	0.008		
Fisher's Ex	18.403			0.010		
Linear-by-L	9.512[b]	1	0.002	0.002	0.001	0.001
N of Valid (	157					

a. 7 cells (46.7%) have expected count less than 5. The minimum expected count is .01.

b. The standardized statistic is -3.084.

A significant relationship between “year of study” and “lectures” was also found, with a result of p=0.010, as seen in the table below. The results show that fourth-year students (67 % of 88) and third-year students (40 % of 70) attended lectures. This implies that students find lectures to be more helpful at some point in their studies and less important in other instances. Students tend to need more lectures in their final years of university when they are about to finish their courses (Abdul, *et al.,* 2017). There existsa significant relationship between “year of study” and “tutorials”, with the result at p=0.000, as seen in the table below. The results showed that the majority of students doing their fourth year (77 percent) found tutorials helpful or most helpful, more than the third-year students (45%). The researcher has also found that students tend to gainmore assistance from tutorials in their later years at university (Karemera, Reuben andSillah, 2003).

Table 4.24: Year of study and tutorials

Year of study * Tutorials							
Crosstab							
			Tutorials					Total
			Not applicabl	Least helpfu	Average	Helpful	Most helpful	
Year of stu	Second	Count	0	0	0	0	0	0
		% within Ye	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		% within Tu	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		% of Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Third	Count	13	15	10	22	13	73
		% within Ye	18.6%	21.4%	14.3%	31.4%	14.3%	100.0%
		% within Tu	56.5%	78.9%	58.8%	44.9%	20.0%	44.3%
		% of Total	8.2%	9.5%	6.3%	13.9%	6.3%	44.3%
	Fourth	Count	10	4	6	27	40	87
		% within Ye	11.5%	4.6%	6.9%	31.0%	46.0%	100.0%
		% within Tu	43.5%	21.1%	35.3%	55.1%	80.0%	55.1%
		% of Total	6.3%	2.5%	3.8%	17.1%	25.3%	55.1%
Total		Count	23	19	16	49	53	160
		% within Ye	14.6%	12.0%	10.8%	31.0%	31.6%	100.0%
		% within Tu	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	14.6%	12.0%	10.8%	31.0%	31.6%	100.0%

Year of Study and Student-Run Study Groups

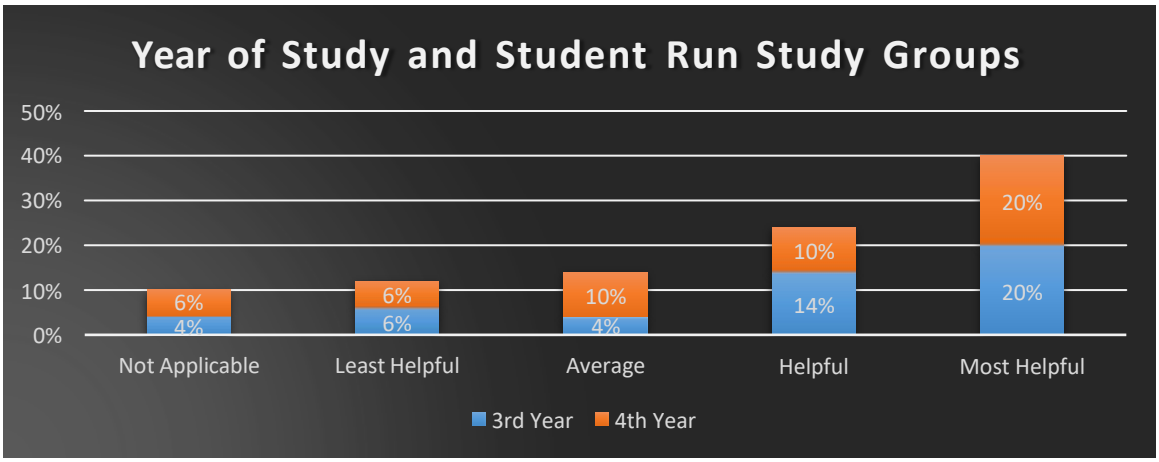

Figure 4-21: Year of Study and Student-Run Study Groups

It was determined that a significant relationship existed between “year of study” and “student-run study groups”, with the result p=0.001. These groups were shown to be very helpful to third-year students (14.3 percent), in comparison to students from other

years of study. This implies that the students find the student-run study groups helpful as they progress with their studies. Students require additional time to understand certain concepts and this can be achieved with the help of peers through discussions. This finding might not be true with fourth-year students as most of them might be working and more independent. Due to some of these reasons, they might not have sufficient time to attend study groups. The above illustration in Figure 4.21 clearly shows this.

Table 4.25: Year of Study and Giving Myself Extra Study Hours

Year of study * I give myself extra study hours after the lecture outside school.							
Crosstab							
	ive myself extra study hours after the lecture outside school.						Total
		Strongly Disag	Disagree	Neutral	Agree	rongly Agree	
Year of stu	Second	Count	0	0	0	1	0	1
		% within Ye	0.0%	0.0%	0.0%	100.0%	0.0%	100.0%
		% within I g	0.0%	0.0%	0.0%	1.8%	0.0%	0.6%
		% of Total	0.0%	0.0%	0.0%	0.6%	0.0%	0.6%
	Third	Count	3	8	13	35	10	69
		% within Ye	4.3%	11.6%	18.8%	50.7%	14.5%	100.0%
		% within I g	37.5%	28.6%	38.2%	61.4%	33.3%	43.9%
		% of Total	1.9%	5.1%	8.3%	22.3%	6.4%	43.9%
	Fourth	Count	5	20	21	21	20	87
		% within Ye	5.7%	23.0%	24.1%	24.1%	23.0%	100.0%
		% within I g	62.5%	71.4%	61.8%	36.8%	66.7%	55.4%
		% of Total	3.2%	12.7%	13.4%	13.4%	12.7%	55.4%
Total		Count	8	28	34	57	30	157
		% within Ye	5.1%	17.8%	21.7%	36.3%	19.1%	100.0%
		% within I g	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	5.1%	17.8%	21.7%	36.3%	19.1%	100.0%

Chi-Square Tests

	Value	df	Significanct Sig. (2-sict	Sig. (1-sioint	Probability	
Pearson Ch	14.159[a]	8	0.078	0.079		
Likelihood F	14.610	8	0.067	0.028		
Fisher's Ex	15.879			0.023		
Linear-by-L	1.874[b]	1	0.171	0.193	0.097	0.022
N of Valid C	157					

a. 7 cells (46.7%) have expected count less than 5. The minimum expected count is .05.

b. The standardized statistic is -1.369.

There was a significant relationship between “year of study” and “I give myself extra study hours after the lecture outside school”, with the result p=0. 023. The tables above clearly show this. Table 4.25 shows that the third-years give themselves more extra study time (64.5%) than the 4th years (57%)

4.7 CORRELATIONS

Bivariate correlations were performed on the (ordinal) data, with results in the appendices. The results have positive values that show a directly proportional relationship between the variables, where a negative value reflects an inverse relationship. All significant relationships are indicated by a * or **.

The correlation value between “class tests” and “tutorial attendance” was found to be p=0.000. This value indicated a relationship between “class tests” and “tutorial attendance”. When the student attends tutorials, it is easier for that student to pass the class tests because he or she will be better equipped.

There was a positive correlation between “previous examinations” and “tutorial attendance”, with the result p=0.016. This implies that students who passed their previous examinations regularly attend tutorials. The attendance of tutorials could be one of the reasons such students would have passed their previous examinations.

In addition, a positive correlation was found between “previous examinations” and “class tests”, whereby p=0.000. This means that students who had high marks in previous examinations are those who also performed well in the class tests. Students want to maintain their trend of obtaining good marks and thus perform well in class tests.

A positive correlation value was also found between “self-given homework” and “tutorial attendance”, where p=0.000. Students who give themselves homework are those who regularly attend tutorials. These students are dedicated to their schoolwork and find more ways and time to focus on their studies.

The results also showed a positive correlation between “self-given homework” and “class tests”, with a value of p=0.000. Students who give themselves homework are those who pass their class tests. This is because such students are well prepared for the tests and spend most of their time doing schoolwork, thereby ensuring better results.

It also emerged that there was some correlation between “self-given homework” and “previous examinations”, with the result p=0.000. Students who give themselves homework are also the ones with great results in previous examinations. This shows that hard work always leads to better results.

There was a correlation between “income status of my parents” and “educational level of parents or guardians”, with the value p=0.000. The income status of parents is directly related to the educational level of the parents. Parents who are well educated have better sources of income and they have higher incomes.

A positive correlation also exists between “involvement of my parents or guardians in my schoolwork” and “educational level of parents/ guardians”, with the result p=0.037. This means that those parents with a high educational level are more involved in their children’s schoolwork and they support these students more in their schoolwork.

A positive correlation was also found between “involvement of my parents or guardians in my schoolwork” and “income status of my parents/ guardians”, with the result p=0.017. On the one hand, the involvement of the parents in their children’s school work is higher when they have higher incomes. This is because they value education more and would want their children to have a better future and to be financially stable, just like them. On the other hand, those with poor incomes are also in several jobs, if at all, with long hours or housing with long travel times, so they are also time-poor to help their children with schoolwork.

There was a correlation between “lectures” and “previous examinations”, where p=0.000. The results imply that students who attend lectures consistently also obtained good grades in their previous exams. Therefore, when one attends lectures the chances of passing increase.

A direct correlation was also found between “lectures” and “self-given homework”, with the value p=0.003. This depicts that students who always attend their lectures are committed to their schoolwork to the extent where they undertake self-given homework. This is because such students are self-motivated and yearn to obtain better results.

A positive correlation was found between “tutorials” and “class tests”, with the result p=0.007. The result means that students who attend tutorials are those who pass class tests. Such students will cover more ground in tutorials and are fully equipped when it comes to class tests.

There was also a direct correlation between “tutorials” and “self-given homework” and the result was p=0.004. This implies that students who attend tutorials are a position to give themselves homework because they are determined to achieve better grades.

A direct correlation was also found to exist between “tutorial” and “lectures”, where p=0.000. Thus, by implication, those students who consistently attend tutorials also

attend their lectures consistently. They value their education so much that they use their time wisely.

The results also show a positive correlation between “lectures” and “previous examinations”, with the value p=0.000. Therefore, students who attend their lectures are the ones who obtained better grades in previous examinations. This is because of the commitment of the students.

Furthermore, a positive correlation was also found between “lectures” and “self-given homework”, with the result p=0.003. Students who attend lectures are thus the ones that give themselves homework, which in turn makes them better students who are achieving good grades.

A positive correlation was further found between “printed textbooks” and “previous examination”, where p=0.026. This implies that students who made more use of printed textbooks are the ones with higher marks in previous examinations. Thus, students who use text-books more are those who achieve better marks.

In addition, the results also revealed a positive correlation between “printed text books” and “lectures”, with p=0.000. Students who made use of printed textbooks usually find the need to consistently attend their lectures. These students obtain better marks because of using the resources well.

There was also a positive correlation between “online study material” and “lectures”, with a value of p=0.003. Students who make good use of online study materials are the ones who also attend lectures more. As students will be intent on improving their grades, they will support their lecture attendance with the use of online study materials.

The results also revealed a positive correlation between “online study material” and “printed textbooks”, with a value of p=0.000. It appears that the more the student uses online materials, the more printed textbooks are also used. This could be because the

student would want to verify the online study material with the notable sources of printed textbooks.

A positive correlation was found to exist between “use of library” and “previous examinations”, whereby the value was p=0.038. Students who used the library more are also apparently those who had more passes in their previous examinations. The use of the library allows the student to better understand course material and this helps the student in obtaining better marks in exams.

There was also a positive correlation between “use of library” and “self-given homework”, with the result p=0.049. It was apparent that the more students use the library, the more they find the need to undertake more self-given homework. As students obtain textbooks from the library and can use them at home, they can thus improve as students.

The results also showed a positive correlation between “use of library” and “lectures”, with the value p=0.008. The more the students use the library, the more they find the need to attend lectures. Students who use the library consistently tend to read ahead and this leads to them wanting to understand the concepts more deeply when they are taught in class.

There was a positive correlation between “use of computers” and “tutorial attendance”, where p=0.022. Students able to use computers are usually those who regularly attend tutorials. These students find study material using computers and are able to ask questions of their tutors in class.

The results also revealed a positive correlation between “use of computers” and “previous examinations”, where the value is p=0.037. The students who use computers more are the ones that had more passes in previous examinations. These students are able to research more about difficult concepts using computers and this makes them better equipped for tests.

A positive correlation was found to exist between “use of computers” and “self-given homework”, with the result p=0.003. The students who use computers more are the ones who give themselves more homework. They can obtain study materials online using computers and can work on the downloaded material when they are at home.

The correlation between “use of computers” and “lecture” was found to be positive, with a value of p=0.014. Students who make more use of computers are those who attend lectures more. Such students can find complex concepts online using computers and can use lectures for clarifying such concepts.

There was also a positive correlation between “use of computer” and “use of library”, whereby the value is p=0.000. It appears that students who use computers more also use the library more. Students who do not own computers can use those in the library. This is the reason why the use of computers is directly related to the use of the library.

The results also revealed that there was a positive correlation between “student run study groups” and “use of library”, where p=0.000. Students who are involved in the student-run study groups are the ones who make more use of the library. Such students would want to use resources from the library in their discussions, hence the direct relationship.

A positive correlation also emerged between “student-run study groups” and “use of computers”, with the value p=0.002. This implies that students who take part in student-run study groups use computers more. The student-run study groups find their study material online and thus they have to use computers to access the material, hence the direct relationship.

The correlation between “past examination papers” and “class tests” was found to be positive, with the value p=0.003. This implies that students who made use of past examination papers had good marks in the class tests. The use of past exam papers allowed students to prepare better.

A positive correlation was also found to exist between “past examination papers” and “printed textbooks”, with the result p=0.001. This means that the more the students used past exam papers, the more they needed printed textbooks so they could obtain answers for past examinations. Textbooks would be used to find solutions.

There was a positive correlation between “past examination papers” and “use of library”, with the results showing a value of p=0.026. The more students use past examination papers, the more they need to use the library because they find difficult questions that require them to research more, with solutions only found in the library.

The correlation between “regular tests” and “tutorial attendance” was found to be positive, with a value of p=0.029. This implies that the more the class has regular tests, the more the students attend tutorials. Regular tests push students to attend tutorials because they would want to pass the tests.

There was also positive correlation between “regular tests” and “the use of library”, with the value p=0.008. This means that the more regularly tests are given to students, the more students make use of the library. Students tend to study in the library more when they have pressure from tests.

A positive correlation was found to exist between “regular tests” and “printed text books”, whereby the value is p=0.024. This implies that the more regularly tests are given to students, the more they make use of printed textbooks. Students use printed textbooks more because they want to achieve better marks in regular tests and can only do so by reading more.

4.8 INDEPENDENT-SAMPLES KRUSKAL-WALLIS TEST

Table 4.26: Tutorial attendance and gender

Gender categories

Independent-Samples Kruskal-Wallis Test Summary

Total N	157
Test Statistic	.018[a,b]
Degree Of Freedom	1
Asymptotic Sig.(2-sided test)	.892

The results (Table 4.26) show that the Kruskal-Wallis test rejects the null hypothesis (0.018) that the distribution of Tutorial Attendance is the same across categories of Gender. More female students attended tutorials when compared to male students.

Table 4.27: Use of Library and gender

Independent-Samples Kruskal-Wallis Test Summary

Total N	158
Test Statistic	.020[a,b]
Degree Of Freedom	1
Asymptotic Sig.(2-sided test)	.888

The results show that the Kruskal-Wallis test rejects the null hypothesis (0.020) that the distribution of Use of library is the same across categories of Gender. More male students were found to use the library in comparison to female students.

4.9 CONCLUSION

This chapter presented the results of the study using descriptive and inferential statistics. Both descriptive and inferential statistics provided a description and interpretation of results using different methods. The empirical findings on demographic variables were presented using figures and tables. This chapter also presented the empirical results on the relationship between the study constructs. The next chapter presents the conclusion and recommendations of the study. In addition, the achievement of the objectives of the study will be presented. Moreover, the limitations of the study and areas for further study will be highlighted.

CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

5.1 INTRODUCTION

The previous chapter presented the findings of this study. This study investigated the factors affecting FM students' academic performance. The study mainly employed descriptive statistics. In this regard, conclusions are drawn from the analysed data, which provide answers to the research objectives stated in Chapter One. Finally, recommendations that can assist in improving academic performance will be discussed, while reasons for additional examinations will likewise be given. The segment that follows subsequently presents the principal study ends.

5.2 CONCLUSIONS ON THE FINDINGS

This section focuses on the findings and it formulates conclusions to the study based on the objectives set in the first chapter. These findings are outlined below.

5.2.1 Factors affecting FM students' academic performance

The study results showed that a majority of the respondents claimed they attended tutorials regularly. There were also students who stated 'not applicable', implying that they did not rely on tutorial attendance for academic performance. This showed that tutorial attendance has an impact on academic performance, but students can still excel without attending tutorials. In a study by Horn and Ijansen (2009), it was found that tutorial attendance had a far greater effect on grades than lecture attendance. In addition, respondents claimed that previous examination papers helped their studies and this correlated with their claimed academic performance. The results implied that students who took time revising previous examinations had better performance.

However, some literature states that past exam papers affect academic performance since there are students who benefit from consulting past papers as they believe some questions are repeated multiple assessments (Yusefzadeh *et al.,* 2019). Furthermore, the results showed that self-given homework also affected academic performance. The majority of students who undertook homework themselves had better academic performance as compared to those who did not. These results implied that doing homework helped students understand the subject better, thus improving their performance. When a student does homework, it is an effective way to achieve good grades (Sinha, 2018). Additionally, the results showed that the majority of students mentioned that tutoring was helpful when it came to academic performance. This view is further supported in the study by Abdul-Raheem, *et al.* (2017), which analysed the role of tutoring in improving academic success. The study found that self-given homework is associated with greater academic achievement and improves the student's memory and thinking skills.

Furthermore, using the library and student-run study groups were also very helpful. When students used the library, this assisted them to gather resources that were helpful, thus impacting on their performance. Ullah and Farrog (2008) indicated that the use of the library has a positive impact on students' academic performance as it improves student vocabulary, grammar, writing and spelling skills. In addition, student-run study groups have a significant positive impact on academic achievement as lower performing students benefit from those students with higher abilities (Castaño-Muñoz, Duart and Sancho-Vinuesa, 2014).

5.2.2 Socio-economic and cultural factors that affect student performance

With regard to the above objective, the results showed that a small majority of respondents stated that the educational level of their parents was medium. Mbugua, *et al.* (2012) note a positive correlation between the academic performance of students and their parents' level of education. Children from poor backgrounds, as well as those

whose parents do not have tertiary qualifications, are likely to struggle and drop out of school. The majority of respondents stated that the income status of their parents or guardians was Low. Low-income impacts negatively on students' performance. Some go to school hungry, hence their concentration levels are affected.

Findings from research undertaken by Machebe *et al.* (2017) showed that the income level of parents impacts the academic achievements of the student. The slight majority stated that their parents' involvement was low, whilst a few respondents indicated that their parents or guardians were involved in their schoolwork, the findings showed that the slight majority of respondents had low involvement of parents or guardians in their schoolwork, but those who did have parental involvement were more likely to obtain better bachelor passes.

There was no significance found when comparing these pre-Matric circumstances with claimed academic performance at DUT. This is an important and encouraging finding as it shows that once a student from even a poor background gains access to tertiary education at DUT, it is a social leveller. How the student utilises learning opportunities at DUT then becomes a more important determinant of success.

5.2.3 Organisational factors that affect student performance

There was a relationship between the mode of study and tutorials in that more part-time than full-time students claimed they benefitted from tutorials. AbdulRaheem, *et al.* (2017) analysed the role of tutoring in improving academic success, highlighting that one of the advantages of tutoring is that learning is approached from multiple and missing perspectives, thus promoting understanding and ultimately, academic performance.

In addition, the majority of part-time students claimed that having printed textbooks is helpful when it comes to their academic performance. Furthermore, student-run groups were also found to be helpful with regard to student performance, especially where

third-year students are concerned.

However, there is a worrying number of students who ticked N/A against some of these learning aids, which shows that some students did not use the provided facilities, such as tutorials or the library. Ullah and Farrog (2008) indicated that the use of the library has a positive impact on students' academic performance as it improves a student's vocabulary, grammar, writing and spelling skills.

5.2.4 Strategies to improve performance

The following strategies were adopted to improve performance. A small percentage of respondents agreed that the library does not have enough reading material. The availability of sufficient equipment, books, facilities and human resources is critical to the academic performance of students. However, poor infrastructure, inadequate teaching staff and inadequate equipment are often common at universities (Osaikhiuwu,2014). In addition, the majority of respondents further agreed that a need exists for additional FM classes. This implies that students want more classes to have better achievement in the course. Furthermore, the majority agreed that the teaching methodsused in FM should be revised. It is important for lecturers to mix the methods so that students get a variety of methods. Heinesen (2010) further confirmed that the teacher'sability and competencies significantly improved academic performance, with the lecturer's teaching style and methods used also being important.

5.2.5 Results on Pre-DUT education

From the results, it can be seen that a relationship exists between the type of school and the educational level of parents. Those who are educated tend to assist their children in finding the bests schools, unlike uneducated parents. In addition, the income status of parents also affects the type of school they can afford to send their children to.

There was a relationship between the matric grade that students achieved and parental involvement. When parents are involved, students tend to attain better marks in comparison to students with absent parents. In addition, the income level of parents played an important role when it came to the grades that students achieve. Those students from parents with a stable income tend to obtain better results in Grade 12, which can be attributed to their parents being able to afford sending them to tutorials and buying them study materials.

5.2.6 Results on DUT teaching and learning activities

Whilst the majority of respondents indicated that there is need for additional FM classes and for the course to be revised, the more detailed questions on types of learning showed that most are useful for those students claiming good results.

A positive correlation between the use of the library and claimed class test results was also found. This might suggest that those who use the library also achieve better test results. Moreover, this was seen as a positive relationship between the use of the library and previous examinations. Those who had used the library claimed better previous examination results.

Furthermore, the results showed that a relationship existed between class tests and tutorial attendance. This can suggest that those who attend tutorials attain good test results, whist a correlation showed that those who also attend tutorials claimed to have better previous examination results.

The results also indicated the existence of a relationship between self-given homework and tutorial attendance. Students who give themselves homework were found to also attend tutorials. In addition, those who give themselves homework claimed to achieve good marks in their class tests. The results also showed that there was a relationship between lectures and self-given homework, with those who always attend lectures being the ones committed to giving themselves homework.

There was a relationship between using printed textbooks and claiming good previous examination results. There is also a relationship between lectures and printed textbooks, indicating that those students who read printed textbooks also find the need to attend lectures.

5.3 RECOMMENDATION

- The results showed strategies that were helpful in improving students' performance. Therefore, the FM department should encourage strategies such as self-given homework, student-run study groups and library attendance for assistance. If these strategies are implemented, student performance will also improve.

5.4 RECOMMENDATIONS FOR FUTURE RESEARCH

- A new investigation could include students who are doing the subject as part of another qualification, rather than the one group of students specialising in the FM qualification, as in this research.
- Since this study used a quantitative approach, another study can be done using a qualitative approach to gain deeper insights from the students regarding obstacles to academic performance.
- A more detailed data research on scores for numerical subjects at Matric with numerical subjects in the FM curriculum would be helpful.
- Further research would be needed using actual scores to discover if those from poorer families eventually graduate.
- There was also a small number of students who claim not be using the facilities and further research is needed to find out why.

5.5 CONCLUSION

The aim of this study was to investigate the factors affecting FM students' academic performance, with 160 FM students from DUT's Public Management department as study respondents. The findings showed that there are different factors influencing students' performance. These include attending tutorials, previous examinations, self-given homework and study groups. The results also indicated that there are strategies that students stated would improve their academic performance. These included access to books, teaching methods and having additional classes. Conclusions and recommendations drawn from the study were provided to ensure that students' academic performance improves. Recommendations for future studies were also provided.

It has been a century since Webb (1915) emphasized the importance of looking beyond cognitive abilities to predict academic performance, but it is only in recent reviews that it has been shown that personality is at least as significant as intelligence in educational settings. Academic performance has been strongly correlated with conscientiousness, but openness and emotional stability also play an influential role in determining educational success. When attempting to understand academic performance, Webb was right to focus on character rather than intelligence. Personality matters in all life outcomes, from health to occupational attainment and romantic relationships (Roberts, *et al.,* 2007) it is clear that academic performance is no exception.

The same sentiments were also seen in from the findings of the research-that academic success is more due to personal characteristics (persistence). According to the literature provided in the study, poverty was a stumbling block to learning as it can lead learners to not focus on school work. New findings were seen from the sample since a fair proportion of the respondents claimed to have come from poor families but have achieved entry to DUT and persisted to years 3 and 4.

REFERENCE LIST

Abbasi, A. and Mir, G. 2012. Impact of teacher's ability, student's work ethics and institutional environment on student performance of University of Gujrat. *Middle East Journal of Scientific Research,* 12 (4): 572-579.

Abdulraheem, Y., Yusuf, H. T. and Odutayo, A. O. 2017. Effect of peer tutoring on students' academic performance in economics in Ilorin South, Nigeria. *Journal of Peer Learning*, 10: 95-102.

Aderanti, R.A., and Amuda, A. 2015. Perceived influence of information sources availability and use on the academic performance of secondary school students in a Nigerian Metropolitan City. *American Journal of Educational Research*, 3(11): 1346-1349.

Altinyelken, H. 2010. Curriculum change in Uganda: Teacher perspectives on the new thematic curriculum. *International Journal of Educational Development*, *30*(2): 151-161.

Awan, I. and Blakemore, B. 2012. *Policing cyber hate. Cyber threats and cyber*. London: Routledge.

Ayaz, M., Ali, N., Khan, A., Ullah, R. and Ullah, M. 2017. Impact of school library on students' academic achievement at secondary school level in Southern district of Pakhtunkhwa. *International Journal of Academic Research in Business and Social Sciences*, 7(5): 95-103.

Babin, B. J. and Zikmund, W. G. 2015. *Essentials of marketing research*. 10th ed. Boston: Cengage Learning.

Baker, S. R. 2003. A prospective longitudinal investigation of social problem-solving appraisals on adjustment to university, stress, health, and academic motivation and performance. *Personality and Individual Differences*, 35(3): 569-591.

Bansilal, S., Mkhwanazi, T. and Brijlall, D. 2014. An exploration of the common content knowledge of high school mathematics teachers. *Perspectives in Education*, 32(1): 34-50.

Bell, B. S., and Federman, J. E. (2013). E-learning in postsecondary education. *The Future of Children, 23*(1): 165–185. https://doi.org/10.1353/foc.2013.0007.

Bind, M. A. C. and Rubin, D. B. 2020. When possible, report a Fisher-exact *P* value and display its underlying null randomization distribution. *PNAS*, 117(32): 19151-19158. https://doi.org/10.1073/pnas.1915454117.

Braxton, J. M., Milem, J. F. and Sullivan, A. 2000. The influence of active learning on the college student departure process: Toward a revision of Tinto's theory. *Journal of Higher Education*, 71(5): 569-590.

Burns, A. C., Bush, R. F. and Sinha, N. 2014. *Marketing research*. 7th ed. London: Pearson Education.

Bobek, B. 2012. *Teacher resiliency: A key to career longevity*. Clearing House, 75(4), 202.

Burns, A. C., Veeck, A. and Bush, R. F. 2017. *Marketing research*. 8th ed. London: Pearson Education.

Cassidy, S. 2011. Exploring individual differences as determining factors in student academic achievement in higher education, students in higher education. *Society for Research into Higher Education.* 37(7): 793-810.

Castaño-Muñoz, J., Duart, J. M. and Sancho-Vinuesa, T. 2014. The Internet in face-to-face higher education: Can interactive learning improve academic achievement? *British Journal of Educational Technology*, 45: 149-159.

CDE Insight. 2013. Affordable private schools in South Africa. https://www.cde.org.za/wp-content/uploads/2018/07/Affordable-Private-Schools-in-South-Africa-CDE-Insight.pdf

Clarke, P. 2001. Teacher Excessive Pedagogical Authority in Moroccan Primary Classroom. *American Journal of Educational Research*, 4(1):134-146.

Creswell, J. W. and Clark, V. L. P. 2017. *Designing and conducting mixed methods research*. 3rd edition. Newbury Park: Sage publications.

Creswell, J. W. and Garrett, A. 2008. The “movement” of mixed methods research and the role of educators. *South African Journal of Education*. 28(3): 321-333.

Crow, G. and Wiles, R. 2008. Managing anonymity and confidentiality in social research: The case of visual data in community research. *International Journal of Social Research Methodology*, 11(5): 417-428.

De Clercq, F. and Shalem, Y. 2014. Teacher knowledge and employer-driven professional development: A critical analysis of the Gauteng Department of Education programmes. Southern African Review of Education, 20(1): 129-147.

Delport, C., Roestenburg, W. 2011. *Quantitative data-collection methods: questionnaires, checklists, structured observation and structured interview schedules*. Pretoria: Van Schaik Publishers.

Department of Higher education and training (DHET). 2017. *Understanding Matric Results*. Available: https://www.careerhelp.org.za/content/understanding-matric-

results (Accessed 10 March 2020).

Department of Higher education and training. 2011. Minimum requirements for teacher education qualifications. 553.

do Carmo, M., Infante, P. and Mendes, J. 2014. A different and simple approach for comparing sampling methods in excellence control. *International Journal of Quality and Reliability Management*, *31*(5): 478-499. Available: http://www.emeraldinsight.com/doi/full/10.1108/IJQRM-02-2012-0023 (Accessed 4 July 2016).

Dominguez-Whitehead, Y. 2017. Food and housing challenges: (Re)framing exclusion in higher education. *Journal of Education (University of KwaZulu-Natal)*, 66(1): 149-169.

El-Seoud, S., Taj-Eddin, I., Seddiek, N., Ghenghesh, P. and El-Khouly, M. 2014. The impact of e-learning on Egyptian higher education and its effect on learner's Motivation: A case study. *Computer Science and Information Technology*, 2(3): 179-187.

Eze, S.C. and Inegbedion, H. 2015. Key factors influencing academic performance of international students in UK Universities: A preliminary investigation. *British Journal of Education,* 3(5): 55-68.

Farooq, M.S., Chaudhry, M., Shafiq, M. and Berhanu. 2011. Factors affecting students' quality of academic performance: A case of Secondary school level. *Journal of Quality and Technology Management*, 7(2): 01-14.

Fernandes, I. O., Delabie, J. H. C. and Fernández, F. (2019). *Contribution to the knowledge of the genus Proceratium Roger (Hymenoptera: Formicidae: Proceratiinae) in the New World.* Sociobiology 66 (4):551-559. 10.13102/sociobiology.v66i4.4484

Ford, F. 2011. *The effect of family poverty on children's academic achievement: parental discussion and neighborhood poverty as mediating variables.* Rutgers University-Camden Graduate School.

Fredie, A. 2020. *What does my matric mark mean?* Available: https://www.parent24.com/Learn/Matric-past-exam-papers/what-is-a-matric-pass-20160106 (Accessed 10 March 2020).

Garcia, R. A, Al-Safadi, L. A. 2014. Intervention strategies for the improvement of students' academic performance in data structure course. *International Journal of Information and Education Technology*, *4*(5): 383-387.

Heinesen, E. 2010. Estimating class-size effects using within-school variation in subject-specific classes. *The Economic Journal*, 120(545): 737-760.

Hellas, A., Ihantola, P., Petersen, A., Ajanovski, V. V., Gutica, M., Hynninen, T., Knutas, A., Leinonen, J., Messom, Ch., and Liao, S. N. 2018. *Predicting academic performance: A systematic literature review.* In Proceedings Companion of the 23rd Annual ACM Conference on Innovation and Technology in Computer Science Education (pp. 175–199). https://doi.org/10.1145/3293881.3295783

Heugh, K.A. 2013. Multilingual education policy in South Africa constrained by theoretical and historical disconnections. *Annual Review of Applied Linguistics*, 33(1): 215-237.

Hlavac M. 2022. *stargazer: Well-Formatted Regression and Summary Statistics Tables*. Central European Labour Studies Institute (CELSI), Bratislava, Slovakia. R package version 5.2.3, URL https://CRAN.R-project.org/package=stargazer.

Hofman, A. and Van Den Berg, M. 2000. Determinants of study progress: The impact

of student, curricular, and contextual factors on study progress in university education. *Higher Education in Europe*, 25(1): 93-110.

Hopkins, K. D. 1998. *Educational and psychological measurement and evaluation*, ERIC.

Horn, P. M. and Jansen, A. 2009. Tutorial classes – why bother? an investigation into the impact of tutorials on the performance of economics students. *South African Journal of Economics*, 77(1): 179-189.

Hoskins, S. Newstead, S.E. and Dennis, I. 1997. Degree performance as a function of Age, Gender, Prior Qualifications and Discipline studied. *Assessment and Evaluation in Higher Education.* 22(3): 317-328.

Jones B, Coetzee G, Bailey T and Wickham S 2018. *Factors that facilitate success for disadvantaged higher education students.* An investigation into approaches used by REAP, NSFAS and selected higher education institutions. Cape Town: Rural Education Access Programme.

Kamwendo, A.R.; Corbishley, K.M. and Mason, R.B. 2014. South African consumer ethnocentrism and attitudes towards foreign convenience products. 12(4): 320-333.

Karemera, D., Reuben, L. J. and Sillah, M. R. 2003. The effects of academic environment and background characteristics on student satisfaction and performance: The case of South Carolina State University's School of Business. *College Student Journal*, 37(1): 298-309.

Kuh, G. D., Kinzie, J. L., Buckley, J. A., Bridges, B. K. and Hayek, J. C. 2006. *What matters to student success: A review of the literature*, National Postsecondary Education Cooperative Washington, DC.

Kothari, C.R. 2019 *Research Methodology: Methods and Techniques*. 4th Edition, New Age International Publishers, New Delhi.

Kumar, R. 2011. *Research methodology, a step-by-step for beginners*. New Delhi: SAGE Publications.

Kyshaba, M. 2015. Factors affecting academic performance of undergraduate students at Uganda Christian university. Masters. MAkerere University.

Lawack, J. J. T. H. 2009. OBE won't be missed when it's phased out of schools.
Leedy, P. and Ormrod, J. J. N. J. 2014. *Practical Research: Planning and Design*, London: Pearson Education.

Letseka, M., Breier, M. and Visser, M. 2009. Poverty, race and student achievement in seven higher education institutions. *Student retention and graduate destination: Higher education and labour market access and success*, 7(1): 25-40.

Lynch, K. D. 2008. Gender roles and the American academe: A case study of graduate student mothers. *Gender and Education*, 20(6): 585-605.

Machebe, C.H., Ezegbe, B.N., Onusha, J. 2017. The impact of parental level of income on students' academic performance in high school in Japan. *Universal Journal of Educational Research*. 5(9): 1614-1620.

Mahlo, F. D. and Taole, M. J. 2012. Intervention strategies to improve student performance. Proceedings of the South African College/principles (SACPO). Available: http://www. sacpo.co.za/downloads/conference% 20papers/Intervention% 20Strategies% 20To% 20improve% 20Student% 20Performance.pdf. (Accessed: 10 January 2021).

Mahuro, G. M., Hungi, N. and Lamb, S. 2016. Parental participation improves student academic achievement: A case of Iganga and Mayuge districts in Uganda. *Cogent Education*, 3(1): 1-12.

Malada, B. J. S. T. 2010. We ignore proper education at our peril. *International Business and Economics Research Journal* 11(11): 1211-1222.

Malope, M. C. 2015. *Predicting long-term academic performance from psychosocial factors*. Department of Psychology University of Cape Town.

Mamhute, R. 2011. The educational challenges of pregnant and nursing adult learners: a case study of Morgenster Teachers' College.

Maphosa, C. and Mudzielwana, N. P. 2014. Professionalization of teaching in universities: A compelling case. *International Journal of Educational Sciences*, 6(1): 65-73.

Mbugua, Z. K, Kibet, K, Muthaa, G. M, Nkonke, G.R. 2012. *Factors Contributing to Students' Poor Performance in Mathematics at Kenya Certificate of Secondary Education in Kenya: A Case of Baringo County, Kenya*. Chuka University College.

McGivern, Y. 2009. *The practice of market research: An introduction*. London: Pearson Education.

McMillan, W. J. 2010. 'Your thrust is to understand'–how academically successful students learn. *Teaching in Higher Education*, 32(10): 1-13.

Mestry, R. and Singh, P. 2007. Continuing professional development for principals: A South African perspective. *South African Journal of Education*, 27(3): 477-490.

Millea, M, Wills, E, Anastasia, E, and Danielle, M. 2018. *"What Matters in College Student Success?* Determinants of College Retention and Graduation Rates." Education 138(4):309–22.

Mlambo, V. 2011. An analysis of some factors affecting student academic performance in an introductory biochemistry course at the University of West Indies. *Caribbean Teaching Scholar*, 1(2): 75-77.

Munro, N., Quayle, M., Simpson, H. and Barnsley, S. 2013. Hunger for knowledge: Food insecurity among students at the University of KwaZulu-Natal. *Perspectives in Education*, 31(2): 168-179.

Nel, N. and Müller, H. 2010. The impact of teachers limited English proficiency on English second language learners in South African schools. *South African Journal of Education*, 30(4): 635-650.

Neuman, W. L. 2013. *Social research methods: Qualitative and quantitative approaches*. London: Pearson education.

Niharika, D. and Supriya, M. V. 2011. Student life balance: Myth or reality? *The International Journal of Educational Management*, *25*(3): 237-251.

Nyikahodzi, L., Matamande, L., Taderera, E. and Mandimika, E. 2014. *Determinants of students' academic performance in four selected accounting courses at University of Zimbabwe*. University of Zimbabwe.

Osaikhiuwu, O. C. 2014. Institutional factors affecting the academic performance of public administration students in a Nigerian University. *Public Administration Research*, 4(2): 257-261.

Ross, K. N., Dolata, S., Ikeda, M., Zuze, L., Murimba, S. J. H. S. and Quality, E. A. C. F. M. E. 2005. The Conduct of the SACMEQ II Project in Kenya, 11(1): 57-75.

Sekaran, U. and Bougie, R. 2016. *Research Methods for Business: A Skill Building approach*. 7th ed. New Jersey: John Wiley and Sons.

Sekaran, U. and Boogie, R. 2010: *Research methods of business: A skill building approach*, 5th ed. Chichester. John Wiley and sons.

Shoukat, A., Haider, Z., Khan, H., and Ahmed, A. 2013. Factors contributing to the students' academic performance: A case study of Islamia University Sub- Campus. *American Journal of Educational Research*. 1(8): 283-289.

Silverman, D. 2010. *Doing qualitative research: A practical handbook*. 3rd ed. London: SAGE publication.

Sinha, N. 2018. *Homework, Academic Achievement, and How Much is Too Much*? Available: https://www.emergingedtech.com/2018/03/homework-higher-academic-achievement-but-not-too-much/ (Accessed 12 January 2020).

Spaull, N. 2013a. Poverty and privilege: Primary school inequality in South Africa. *International Journal of Educational Development*, 33(1): 436-447.

Spaull, N. 2013b. South Africa's education crisis: The quality of education in South Africa 1994-2011. *Johannesburg: Centre for Development and Enterprise*, 33(3): 1-65.

Spaull, N. 2015. Schooling in South Africa: How low-quality education becomes a poverty trap. *South African Child Gauge*, 12(1): 34-41.

Taderera, E., Nyikahadzoi, L., Matamande, W. and Mandimika, E. 2014. Exploring management strategies to reduce cheating in written examinations: case study of Midlands State University. *Journal of Case Studies in Education*, 5(1): 1-9.

Taylor, S. 2011. *Uncovering indicators of effective school management in South Africa using the National School Effectiveness Study*.

Taylor, J.L.. 2013. *The Power of Resilience: A Theoretical Model to Empower, Encourage and Retain Teachers.* Qualitative Report. 18. 10.46743/2160-3715/2013.1474.

White, T., Donald H. McBurney D. 2013. *Research methods*. 9th ed. Belmont: Cengage Learning.

Theron, L. C. and Theron, A. M. 2010. A critical review of studies of South African youth resilience, 1990-2008. *South African journal of science*, 106: 1-8.

Theron, L. C. 2012. Resilience research with South African youth: Caveats and ethical complexities. *South African Journal of Psychology, 42*: 333-345.

Tikka, P. M., Kuitunen, M. T. and Tynys, S. M. 2000. Effects of educational background on students' attitudes, activity levels, and knowledge concerning the environment. *The Journal of Environmental Education*, 31: 12-19.

Tsinidou, M., Gerogiannis, V. and Fitsilis, P. 2010. Evaluation of factors that determine quality in higher education: An empirical study. *Quality Assurance in Education*, 18(3): 227-244.

Van Den Berg, L. and Raubenheimer, J. 2015. Food insecurity among students at the University of the Free State, South Africa. *South African Journal of Clinical Nutrition*, 28, 160-169.

Van Der Berg, S., Taylor, S., Gustafsson, M., Spaull, N. and Armstrong, P. 2011. Improving education quality in South Africa. *Report for the National Planning Commission*. https://resep.sun.ac.za/wp-content/uploads/2017/10/2011-Report-for-NPC.pdf (Accessed 2 June 2016).

Vance, A. 2009. Data Analysts Captivated by R's Power. *New York Times,* 6 January 2009.

Venkat, H. and Spaull, N. 2015. What do we know about primary teachers' mathematical content knowledge in South Africa? An analysis of SACMEQ 2007. *International Journal of Educational Development*, 41, 121-130.

Walliman, N. 2011. *Your research project: Designing and planning your work*, Sage Publications.

Welman, C., Kruger, F. and Mitchell, B. 2005. *Research methodology*, Oxford University Press Cape Town.

Wiid, J. and Diggines, C. 2010. *Marketing research*, Juta and Company ltd.

Williams, C. 2007. Research Methods. *Journal of Business and Economics Research,* 5(3): 1-8.

Williams, S. A. 2007. Graduate students/mothers negotiating academia and family life: Discourses, experiences, and alternatives.

Yusefzadeh, H, Iranagh, J. A. and Nabilou, B. 2019. The effect of study preparation on test anxiety and performance: a quasi-experimental study. *Adv Med Educ Pract*., 10: 245–251.

Zikmund, W. and Babin, B. J. 2015. *Essentials of marketing research*. 5th ed. South Western: Cengage Learning.

Zikmund, W. G., Babin, B. J., Carr, J. C. and Griffin, M. 2013. Business research methods.4th ed. Boston: Cengage Learning.

ANNEXURES

ANNEXURE A: LETTER OF INFORMATION AND CONSENT

Port View 10 June 2020
Flat LN102 30-34 Diakonia street
Durban
4001

To whom it may concern

Letter of information and consent:

Title of the Research Study: The factors that influence academic performance of students registered for Financial Management at Durban University of Technology.

Principal researcher: Mr. Mhlonishwa Khumalo

Supervisor: Professor Charlotte Mbali at Durban University of Technology

Brief Introduction and Purpose of the Study:

I am conducting a study on the factors that influence academic performance of students registered for Financial Management at Durban University of Technology. I am pursuing my master's degree at Durban University of Technology registered with the department of Public Management. The purpose of undertaking this study is to fulfil the requirements of my master's programme.

In cognisance of this, this study attempts to determine the factors that influence academic performance of students registered for Financial Management at Durban

University of Technology. It is envisaged that challenges and opportunities of will be determined.

Outline of the Procedures:

This is a survey study. The target population in this study will comprise 150 respondents drawn from management students, five lecturers and five tutors from the Public Management Department at Durban University of Technology (DUT). Participants will be benevolently asked to intentionally partake in this overview and complete the questionnaires given to them. Participants will be approached to return the questionnaires upon culmination while by dropping the finished questionnaires in a fixed box. The survey will take a normal of ten (10) minutes to finish. By finishing the poll, the member will have given his/her assent and comprehends the given data.

Risks or Discomforts to the Participant:

Participation is intentional and non-participation won't bring about any punishment. There is no danger or distresses over the span of this investigation. The examination has an ethical endorsement.

Benefits:

A summary of key findings will be available to interested parties upon request, Article publication and a master's qualification to the researcher.

Reason/s why the Participant May Be Withdrawn from the Study:

There will be no adverse consequences for the subject and participants may withdraw from the study without giving any reason.

Remuneration:

Due to financial constraints, the participants will not receive any monetary or other type of remuneration during the study.

Costs of the Study:

The participants do not cover any costs towards the study.

Confidentiality:

All data submitted is treated with the most elevated level of confidentiality. To guarantee anonymity and confidentiality, no names of the respondents will be needed on the questionnaires. What's more, the aftereffects of the examination will be made accessible them whenever they have been finished up.

Research-related Injury:

There will be no research-related injury or adverse reaction during the course of the study and no compensation paid to any participant during the study.

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

Supervisor: Professor Charlotte Mbali at Durban University of Technology

Tel No: 031 373 6831 Email: Mbalivc@gmail.com

Researcher: Mr Mhlonishwa Khumalo Email: khumalo.mhlonishwa@gmail.com
Research Ethics administrator on 0313732900

Statement of Agreement to Participate in the Research Study:

I……. (Participant's full name)..... (ID number), have read this document and in its entirety and understand its contents.
Where I have had any questions or queries, Mr Mhlonishwa Khumalo has explained these to me to my satisfaction.

Furthermore, I fully understand that I may withdraw from this study at any stage without any adverse consequences and my future health care will not be compromised. I, therefore, voluntary agree to participate in this study.

Participant's name (print): ……

Participant's signature: ……Date ……...

Researcher's name (print): ……

Researcher's signature: ……Date …….

Witness name (print): …….....

Witness signature: …… Date ……

ANNEXURE B: LETTER OF INFORMED CONSENT FROM THE ACTING DIRECTOR: RESEARCH AND POST GRADUATE SUPPORT DIRECTORATE OF DURBAN UNIVERSITY OF TECHNOLOGY

DUT
DURBAN
UNIVERSITY OF
TECHNOLOGY

Directorate for Research and Postgraduate Support
Durban University of Technology
Tromso Annexe, Steve Biko Campus
P.O. Box 1334, Durban 4000
Tel.: 031-3732576/7
Fax: 031-3732946

05th August 2019

Mr Mhlonishwa Khumalo
c/o Department of Public Management and Economics
Faculty of Management Sciences
Durban University of Technology

Dear Mr Khumalo

PERMISSION TO CONDUCT RESEARCH AT THE DUT

Your email correspondence in respect of the above refers. I am pleased to inform you that the Institutional Research and Innovation Committee (IRIC) has granted full permission for you to conduct your research "An investigation of the factors that influence academic performance of students registered for Financial Management at DUT" at the Durban University of Technology.

The DUT may impose any other condition it deems appropriate in the circumstances having regard to nature and extent of access to and use of information requested.

We would be grateful if a summary of your key research findings can be submitted to the IRIC on completion of your studies.

Kindest regards.
Yours sincerely

PROF KEVIN DUFFY
ACTING DIRECTOR: RESEARCH AND POSTGRADUATE SUPPORT DIRECORATE

ANNEXURE C: COVERING LETTER TO THE QUESTIONNAIRE.

Dear Sir/Madam

I am a registered master's student in the Department of Public Management at the Durban University of Technology. As part of my studies and to qualify for the award of a master's in management sciences degree, I have to complete a dissertation. I am therefore conducting a study titled, **The factors that influence academic performance of students registered for Financial Management at Durban University of Technology.** I would appreciate your co-operation in completing this questionnaire.

The completion of the questionnaire should not take longer than ten (10) munities of your time. I want to thank you in advance for your time. Please be assured that your identity will remain anonymous and your responses will be kept confidential.

Participation in this research study is voluntary and you may withdraw from the study at any time without providing a reason.

Should you not understand any one question in this questionnaire, please do not hesitate to ask me or my fieldwork assistant for clarity. My supervisor can also be contacted on **mbalicvgmail.com** should you need to make any further enquiry. All your effort to complete this questionnaire is highly appreciated.

Yours faithfully
Mhlonishwa Khumalo
065 899 5132
Khumalo.mhlonishwa@gmail.com

ANNEXURE D: RESEARCH QUESTIONNAIRE

1. DEMOGRAPHICS

1.1	**Gender**	Male[1]	Female[2]	Other[3]

1.2	**Race**	African[1]	Indian[2]	White[3]	Coloured[4]	Other[5]

1.3	Marital Status	Single[1]	Married[2]	Divorced[3]	Widowed[4]

1.4	**Age**	Under 20[1]	20-29[2]	30-39[3]	40-49[4]	Above 50[5]

1.5	**Mode of Study**	Parttime[1]	Full time[2]

1.6	**Year of study** 1[1]	
	22	
	33	
	44	

2. Prior Education

2.1 What is the name of the school you attended when you did your Matric?

2.2 Is this school

a) in a rural area
b) in a township
c) in a city or town centre
d) is it a Model C school?
e) is it a private school?

2.3 What was the grade of your Matric

3. Admission Status

Please indicate your entry level into Durban University of Technology

Certificate[1]	
Higher certificate[2]	
Diploma[3]	
Degree[4]	

4. Social-economic status

	Please indicate the most honest response	**Low[1]**	**Medium 2**	**High[3]**
4.1	Educational Level of my parents/ guardians			
4.2	Income status of my parents/ guardian			
4,3	Involvement of my parents/ guardians in my school-work			

5. Academic Performance

		None[1]	**Poor[2]**	**Fair[3]**	**Good[4]**	**Excellent[5]**
5.1	Tutorial Attendance					
5.2	Class Tests					
5.3	Previous Examinations					
5.4	Self-given Homework					

6. On a scale of 5 (5=most helpful) which of the following helps you achieve in your studies at DUT.

	Most helpful[5]	Helpful[4]	Average[3]	Least helpful[2]	Not applicable[1]
6.1 Lectures					
6.2 Tutorials					
6.3 Printed textbooks					
6.4 Online study material					
6.5 Use of library					
6.6 Use of computers					
6.7 Student run study groups					
6.8 Past exam papers					
6.9 Regular tests					

7 Personal Evaluation

SD-Strongly Disagree	D- Disagree	N-Neutral	A-Agree	SA-Strongly Agree

	Please indicate your option on the following statements	SD[1]	D2	N3	A4	SA[5]
7.1	I actively participate in the answering of questions and participate in class.					

7.2	I give myself extra study hours after the lecture outside school.					
7.3	I have difficulty understanding the subject terminology used at times.					
7.4	The library does not have enough reading material.					
7.5	There is need for extra Financial Management classes					
7.6	Teaching methods used in FM should be revised					

8. What do you think hinders you from achieving high results in FM?

THE END THANK YOU

ANNEXURE E: LANGUAGE EDITING LETTER

EDITING LETTER

696 Clare Road

Clare Estate

Durban

4091

15 May 2022

To: Whom it may concern

Editing of Master's thesis: M Khumalo

AN INVESTIGATION INTO THE FACTORS THAT INFLUENCE THE ACADEMIC PERFORMANCE OF STUDENTS REGISTERED FOR FINANCIAL MANAGEMENT AT THE DURBAN UNIVERSITY OF TECHNOLOGY

This letter serves as confirmation that the aforementioned thesis has been language edited.

Any queries may be directed to the author of this letter.

Regards

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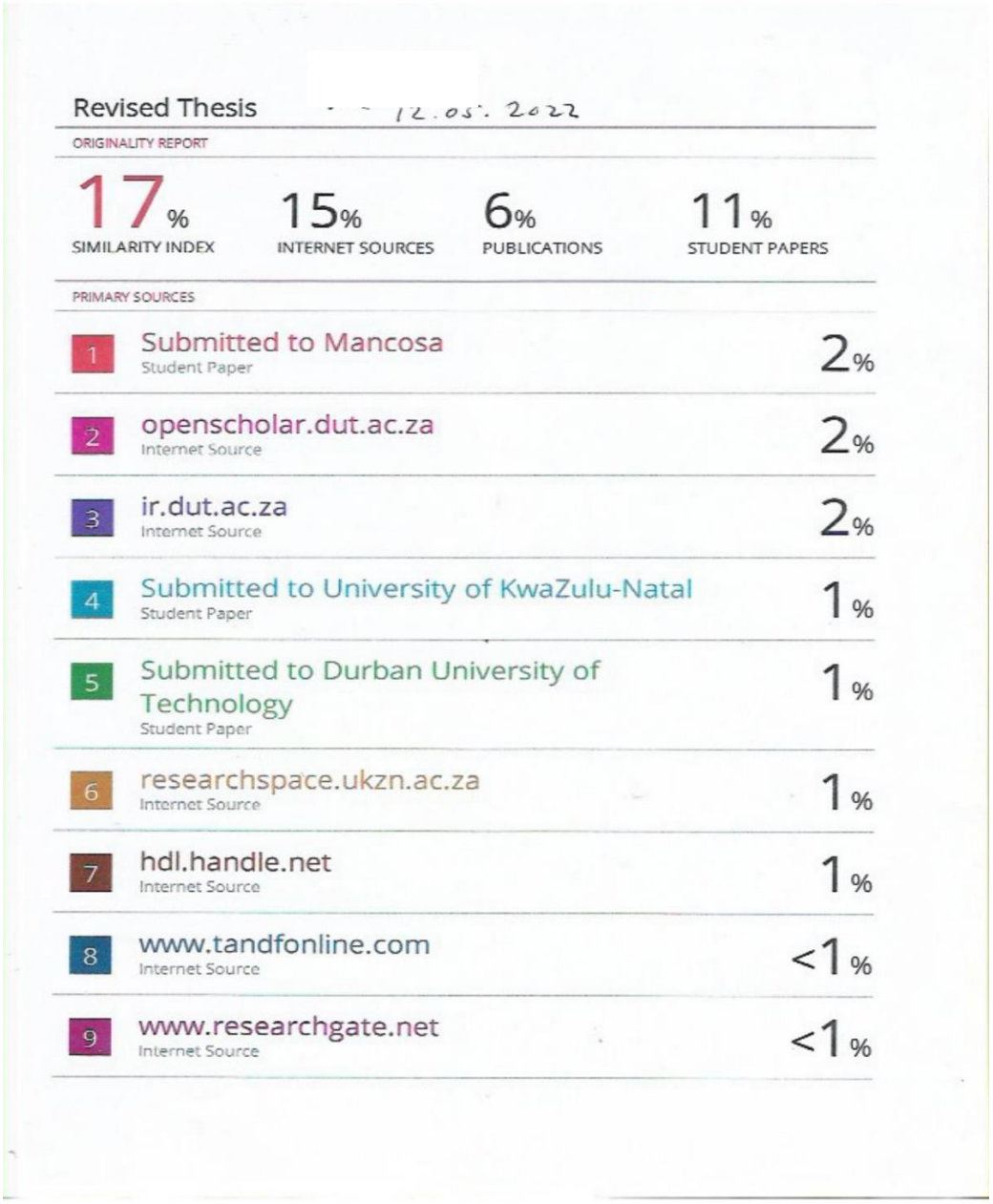
ANNEXURE F: TURN IT IN REPORT



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