



Investigating the impact of postgraduate student drop-out rates at a higher education institute

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ABSTRACT

Universities in South Africa are obliged to adhere to the South African National Planning Commission's National Development Plan (NDP) by assisting students financially in order to complete their studies. Despite complying, universities experience high volumes of students who drop out at postgraduate level of studies after receiving university-funded bursaries.

The objective of this study is on evaluating the financial impact caused by postgraduate students who drop out after receiving university-funded bursaries. Several variables are evaluated in order to understand the impact of these student dropouts.

A literature study was conducted to obtain insight into the South African higher education environment, and to highlight the challenges faced by both universities and students. The empirical study conducted focused on the financial impact caused by the postgraduate student dropout rate notwithstanding their receiving university-funded bursaries. It also addresses the variances per demography and the relation to the allocation of these university bursaries.

The findings from the empirical study show that a large sum of university-funded bursary money is lost due to students that drop out after receiving bursaries.

In conclusion, universities need to address the recovery processes of bursary money from dropout student as well as the poor completion rates on postgraduate level.

Key terms: bursary, dropout, higher education institution, postgraduate

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LIST OF ABBREVIATIONS

DHET	Department of Higher Education and Training
OECD	Organisation for Economic Co-operation and Development
UK	United Kingdom
HEMIS	Higher Education Management Information System
NWU	North-West University
NDP	National Development Plan
PSET	Post school education and training
CET	Community Education and Training
NQF	National Qualification Framework
ARWU	Academic Ranking of World Universities
UKZN	University of KwaZulu Natal

CHAPTER 1: NATURE AND SCOPE OF THE STUDY

1.1 INTRODUCTION

To study at a university is an expensive exercise for the student, parent and university concerned. Postgraduate studies are often more expensive and students who do not complete their studies have a financial impact on a variety of stakeholders.

A large number of students enrol for postgraduate studies that they fail to complete. When a student enrolls for studies, class fees are charged for the year. Some of the students are awarded bursaries. Universities award bursaries to students from university funds. In other instances, third parties such as companies or external bursars fund students for tuition, accommodation and other costs per academic year.

The South African Department of Higher Education and Training (DHET) released an annual graduate statistical report in 2013 in which it stated that only 20% of Master's students and 12% of doctoral students completed their studies (Department of Higher Education and Training, 2017/2018). Annually, the DHET publishes national figures for South Africa. In the annual report for 2017/2018 the DHET reported that from 2013 the number of Master's graduates increased from 6 460 to 7 968 at the end of the 2016 academic year. This is a total growth of 23.3% and constitutes 5.8% of the annual increases. At doctoral level the number of graduates had increased from 2 051 in 2013 to 2 797 by the end of 2016. The increase in growth in the number of doctoral graduates increased steeply by 36.4% and constituted a 9.1% annual growth (Department of Higher Education and Training, 2017/2018). The 2017/2018 annual report focused on the overall challenges in the higher education environment since 2015 and did not report the percentage of dropout students on the different levels of education (Department of Higher Education and Training, 2017/2018).

During 2017 the DHET reported that 47.9% of all university students in South Africa had not completed their degrees (Department of Higher Education and Training, 2017). Although there is significant growth in the number of students registered, more needs to be done to assist students in completing their studies.

As regards the funding mentioned above, it is clear that bursars and universities themselves are at risk of losing money. Cardak and Vecchi (2016:323) stated that 'the cost to students and society can be large'. Often students are left with debt and no benefit of graduation. In contrast, institutions often invest in students by granting them bursaries from university funds. A large number of postgraduate students receive funding from their institutions but still do not complete their studies. Studies done in the United Kingdom stated that the question remained whether or not the contribution of bursaries had a positive effect on the throughput of postgraduate students, given the large sums of money invested in them (Harrison & McCaig, 2017). Harrison and McCaig (2017) concluded that universities had the freedom to implement bursary schemes and generalisations about the effectiveness of bursaries could be misguided. The research done by Harrison and McCaig (2017) involving five pilot universities concluded that there were significant discrepancies in the administration, criteria used and bursary money allocated.

The purpose of the present research is to investigate the financial impact of bursary money lost from university funds due to the dropout of postgraduate students. Tuition fees are charged to student accounts during the annual registration period. The institution grants financial support in the form of university-funded bursaries that are allocated to student accounts. In most instances this bursary money exceeds the annual tuition fees. Credit amounts on the student accounts are paid out to registered students. Even with this financial support in place, universities still experience a large number of students dropping out. A possible reason for this drop-out might be that students do not realise or adhere to the financial obligations associated with the university-funded bursaries when students apply and enrol for their studies (Cardak & Vecchi, 2016). The financial rules of an institution must be very clear regarding the financial obligations of students when studies are discontinued. Limitations in processes can increase the financial risk for an institution if the bursary money is not recovered.

1.2 BACKGROUND TO THE STUDY

Letseka *et al.*, 2010 (cited by DoE 2010) stated that in the National Plan for Higher Education the concern is expressed that South Africa's graduation rate was one of the lowest in the world. Since the DHET expects institutions to become the cornerstone of the country's skills

development programme, the high student dropout rates need to be curbed in order for the country to benefit from these institutions (Mdluli, 2017).

Students drop out of universities due to a number of reasons which include personal reasons, changes in personal circumstances, financial reasons and wrong course selections. Financial reasons include sponsors that were no longer available, insufficient funding and loss of jobs (Mabunda, 2012). The reason why students drop out of a higher education institution will not form part of this research, since the focus will be on the financial risk for the institution.

According to Schulze (2012), the lack of financial aid may be the cause of students dropping out. One of the factors causing financial strain on students could be the finalising of reports such as dissertations and other subject-related research, which requires significant financial output from them. Bursary money for deserving students may not be enough to ensure completion of studies.

In the ministerial statements on university funding 2018/2019 and 2019/2020 universities were required to ensure that funding was effectively utilised (Department of Higher Education and Training, 2018). This statement also relates to bursary money and the improvement of debt collection in order to ensure sustainability of funding for higher education.

Making financial assistance available from university funds was intended to support students in completing their qualifications. The constant increase in tuition fees as well as other study-related costs is the cause for unmet financial needs (Chaplot *et al.*, 2015). If financial assistance is minimised, it is not the only cause of students dropping out: It can also cause students to complete their qualification over a much longer period. Students that do not complete their studies in the given period have a negative effect on the subsidy that institutions receive. It is important that financial support is adequate to encourage the progress of students from entry to exit (Chaplot *et al.*, 2015).

Dropping out of university studies depends on occurrence and circumstances. Students may enrol but never start with their studies. Some students will go through a formal withdrawal

or cancellation process at an institution only to drop out from their current enrolment. These students are referred to as *dropouts*. Students that cease to attend contact sessions without formally withdrawing or cancelling their studies are referred to as *stop-out students*. Withdrawing can also be due to the student failing the required standards (Mdluli, 2017).

According to the DHET (Department of Higher Education and Training, 2017/2018), a student is not seen as a dropout if he or she

- drops out from one university and enters another institution
- changes courses or
- drops out and returns at a later stage.

For the purpose of the present research, the term *dropout students* will be used, irrespective of whether or not they cancelled their studies or left without formally withdrawing from an institution.

During 2000 a new Higher Education Management Information system (HEMIS) was introduced. The HEMIS collection assists in the data collection of student enrolments and graduates from public higher education institutions. Universities supply audited data in a specific format to HEMIS. This data identifies graduates who have completed their final examinations and dropout students. The HEMIS data contain information on students such as the race, gender, field of study, graduation status and the qualification type (Qonde, 2018).

According to McGivney (cited by Mdluli, 2017), the dropout rate has a negative effect on the South African economy, institutions and individual students. Dropping out of university bears a considerable financial, social and personal cost for the students concerned. Dropping out also has a negative psychological effect on these students. Students who drop out of higher education institutions add to the high unemployment rate in the country. Heublein (cited by Mdluli, 2017) states that by reducing the dropout rate, the labour supply may increase. International research shows that there is a direct link between higher education levels and economic development (Cloete, 2016). High dropout rates can be directly linked to the shortage of high-level skills in South Africa. In order to increase the overall growth in the

economy, South Africa needs to invest in higher education and specifically postgraduate qualifications.

Cloete (2016) cites a report by the Centre for Higher Education Trust (CHET) and states that full-time postgraduate students in South Africa do not perform as well as in other countries. In contrast, part-time postgraduate students in South Africa compare well with those in the United Kingdom. In the present research there is no differentiation between full-time and part-time students.

The Strategic Framework 2015–2019 (Universities South Africa, 2014) states that *'one fifth of academics in South African universities are due to retire in less than a decade, including nearly half of the professoriate'*. This statement emphasises the importance of addressing the high dropout figure at postgraduate level. An improved throughput of postgraduates will contribute positively towards building the next generation of academics.

With proper research conducted on the postgraduate group of students, quantitative and qualitative data can help to determine the individualities of the students and the efficiency of bursary money allocated from university funds. Internal policies and processes of an institution are created to fit specific circumstances and groups of students. Owing to the constant change at institutions, as well as economic and political changes, these policies and processes may have a negative impact on the academic and financial status of students. Therefore, it is important to review the internal process from the perspective of the students. Research can help to highlight opportunities that meet the needs of the students and increase students' ability to succeed. Without proper funding for students at postgraduate level, the risk for students of not reaching their educational goals will increase (Chaplot *et al.*, 2015).

1.3 PROBLEM STATEMENT

High dropout rates have been a challenge for years. An average of 43% of postgraduate students below Master's level completes their qualifications. According to the DHET, 21% of Master's students and 13% of doctoral students successfully complete their degrees (Department of Higher Education and Training, 2017). These figures can be an indication

that there are problems in the system or institutions that require attention. Chweu and Schultz (cited by Mdluli, 2017) having worked with students for many years and realised that the student dropout rates causing a concern and that not much has been done to address the issue. Students are enrolled in numbers at the beginning of the year. However, for various reasons, only a few of them complete their studies. In this research it became clear that this was a global issue, which needs to be addressed appropriately.

Annually millions of South African rands are being allocated to postgraduate students in order to assist them financially during their studies. With the high dropout figure and high number of bursaries allocated it seems necessary to study and analyse the financial risk caused by bursaries allocated from university funds in the higher education environment.

1.4 OBJECTIVES OF THE STUDY

Owing to the high number of dropouts in higher education institutions, it became necessary to rethink the allocation of university-funded bursaries for postgraduate students.

The purpose of the present research was to analyse the number of dropout students who received university-funded bursaries at postgraduate level at a specific university, namely the North-West University in the North West Province of South Africa. The analysis includes the value of bursaries allocated to dropout students on postgraduate level who were funded by an institution. The research includes secondary information such as the age, gender, race, region of residence and field of study of the students.

1.4.2 Primary objective

The objective of this research was to analyse the financial risk for a university due to postgraduate students dropping out after receiving bursary money funded by an institution.

1.4.3 Secondary objectives

The secondary objective can be divided between the secondary objectives in the literature review and the secondary objective in the empirical study. The more detailed secondary objectives in the literature review are listed below.

1.4.3.1 Literature study

- Obtain insight into the South African higher education environment.
- Investigate the challenges in the higher education environment of South Africa.
- Explore recent research conducted on the topic and relevant findings.
- Investigate any previous research done on dropout students in South Africa.

1.4.3.2 Empirical study

- Determine the demography of the sample population.
- Validate the reliability of the data by means of statistical analysis.
- Discuss the variances highlighted per demographic variables and the relation to the allocation of bursary money from university funds.
- Provide recommendations and conclusion based on the literature and empirical study completed.

1.5 RESEARCH METHODOLOGY

Money spent on students who complete their qualifications can be seen as adding value or as a return on investment for a university. Therefore, an unsuccessful student or students who drop out leads to a waste of resources and a potential loss of bursary money allocated.

The aim of this study was to investigate the financial risk caused by postgraduate students dropping out from a higher education institution after receiving bursary money from university funds. The study followed a quantitative research approach to evaluate the financial risk for an institution. Variables related to the secondary research questions are

addressed. In order to conduct the research, a literature study and an empirical study were conducted.

1.5.1 Literature review

The research was conducted by making use of the latest journal articles, dissertations, textbooks, discussion papers and government publications. These resources provided a thorough understanding of the national higher education environment.

1.5.2 Empirical study

A research method is a case study to be performed at a specific time on a specific sample group. Forsyth (2019) defined a case study as '*a written account that gives detailed information about a person, group, or thing and their development over a period of time*'. The research conducted in a case study can be defined as a multipurpose form of qualitative research suitable for an in-depth analysis of a complex issue. The inquiry may contain many variables (Harrison *et al.*, 2017). According to Harrison *et al.*, (2017), a case study can address a wide variety of questions and assist the researcher in exploring, describing and evaluating complex issues.

The loss of university resources due to students dropping out has a negative influence on the sustainability of higher educational institutions. The empirical study in the present focused on postgraduate students and the dropout figures in the higher education system of South Africa. Bursary money allocated to students from university funds were taken into consideration.

Quantitative data from a university, government publications and annual reports were used to conduct the empirical study. Data were analysed within higher education environment with the assistance of the North-West University Statistical Consultation Services.

Ethical consideration was given to the all parties involved in this research. The researcher takes care not to infringe on the rights of the parties involved.

1.6 LAYOUT OF THIS STUDY

Chapter 1: Introduction

The aim of this chapter is to present the background of the study. The chapter includes the research problem, objectives and addresses the research questions. The research methodology used in the study is outlined.

Chapter 2: Literature review

This chapter includes previous research conducted on dropouts at higher educational institutions, and the impact this has had on institutions and the economy.

Chapter 3: Empirical study

In this chapter the research approach and data collection method are discussed. The presentation of the data and the discussion of the findings are addressed here. Findings are linked to the literature review.

Chapter 4: Conclusion and recommendations

This chapter concludes the research and makes thoughtful recommendations for the way forward with regard to university-funded bursaries for postgraduate students in South Africa.

1.7 LIMITATIONS OF THE STUDY

The research was conducted with data from one institution to create the sample. This study can stimulate further research at other universities in order to ensure the sustainability of these institutions.

This study will not be generalisable to all universities, since the number of dropouts and bursary money paid from university funds are different for each university. However, the outcome of this research can stimulate similar research at other higher educational institutions.

According to Mabunda (cited by Lau, 2003), research shows that in most cases students drop out in their first year of study. In the present study the academic year in which students

drop out was not investigated since the focus is only on university-funded bursaries allocated to this group of students. The investigation does not take into account the percentage of students who may continue and complete their studies later in life or at other institutions.

1.8 CONCLUSION

Some students at postgraduate level are partially funded by universities. The fact that students receive bursary money from university funds does not ensure that they complete their studies at the initial institution where they entered a study programme. Bursary money also does not ensure that students complete their studies. Students will drop out regardless of the amount of financial support received.

The dropout rate can be influenced by the financial liabilities of students. Bursaries offered to deserving students may not be enough to ensure that these students complete their studies.

There may be underlining assumptions related to the students' age, gender, race, region of residence and field of study, which are analysed in this research. An example of such an assumption may be that students from regions outside the North West Province tend to drop out. The cause may be linked to financial strain on these students due to the distance between home and campus. This information may be important in developing a new bursary strategy for higher education institutions.

Students who receive university-funded bursaries and do not complete their studies and do not repay the bursary money can be the cause of a huge financial loss for higher education institutions. Identifying and recovering bursary money from dropout students can be a time-consuming and costly exercise for the institution. This research can be important for the institution in the development of future processes and policies regarding university-funded bursaries for postgraduate students.

CHAPTER 2: LITERATURE STUDY

2.1 INTRODUCTION

South Africa needs to invest in knowledge production and develop modernisation at the highest levels in order for the country to stay ahead in a globally competitive world. Postgraduate students need to be equipped with the necessary skills to contribute to the knowledge base of a country (Zewotir *et al.*, 2015). South African universities only produce 26 doctoral graduates per million citizens, which is far below the figure for other countries (Zewotir *et al.*, 2015).

Annually thousands of rands are invested in students for higher education at both undergraduate and postgraduate level. Unfortunately, only a small percentage of these students complete their studies. This research focuses on postgraduate students receiving bursary money from university funds. Secondary research questions are addressed with regard to gender, race, age and region of residence of the dropout students at postgraduate level of studies.

The DHET states that it seeks to boost research productivity by rewarding quality research output at public higher education institutions (Department of Higher Education and Training, 2018). The method of rewarding postgraduate students forms the basis for productivity, and research output contributes positively towards the throughput and success of students. The rewarding of postgraduate students can be in the form of bursary money allocated from university funds.

Research productivity is negatively influenced by the dropping out of students. Higher education institutions must identify focus areas and address students' needs in order to meet the national development demand for increasing high-level skills in South Africa. The management of funds in the form of university bursaries awarded to postgraduate students must be managed properly in order to sustain this scarce resource. Unsuccessful students who drop out leads to a waste of resources (Gouws & van der Merwe, 2004). Money spent on students who complete their qualifications can be seen as adding value or as a return on investment for universities.

Yearly, students register at universities and receive a quantum from university funds. When a student drops out from a university, the money invested in such a student can be seen as a loss for the university. A number of students will officially cancel studies and therefore the bursaries can be recovered. However, a large number of students drop out of the system without notifying the institution of their decision to discontinue their studies. Since the dropout figures are significantly high, this research will focus on the amount of bursary money paid to the dropout students at a large university.

Specific points of dropping out from higher education can be identified in the student life cycle, namely (Gouws & van der Merwe, 2004)

- students cancel studies formally after registration,
- registered students who cancel studies or drop out before examination of the first semester,
- students who passed the first semester but drop out or cancel studies before the final examination at year-end,
- students who fail examinations at the end of the year,
- students who pass examinations but do not return for the following year,
- registration fees payable at the beginning of the year cause a concern for the students under financial strain,
- another factor that caused financial strain for students is the finalising of reports. This required significant financial output for the student, therefore the bursary money for deserving students may not be enough to ensure the completion of studies.

There are several reasons why students drop out or stop out. The lack of financial aid may be the cause for dropping out and the question arises whether these bursaries contribute enough to ensure the success of students (Botha, 2018).

In August 2014 the Minister of Higher Education and Training, Dr Blade Nzimande, stated that the objectives of the National Development Plan (NDP) regarding the throughput rates were to improve the quality of teaching that includes strengthening governance and

management. It is therefore important to develop and improve policies and strategies to ensure a high student retention rate (Cooperative Governance Traditional Affairs, 2018). The NDP aims 'to ensure that all South Africans attain a decent standard of living through the elimination of poverty and reduction of inequality' (Cooperative Governance Traditional Affairs, 2018). Core elements identified in the plan include quality education for all South Africans. The objective of the NDP regarding education and training states that;

- the throughput rate must improve to 80% by 2030,
- PhD qualified staff in the higher education sector must increase from 34% to over 75% by 2030,
- deliver more than 100 doctoral graduates per million per year by 2030,
- increase the number of African and women postgraduates, especially PhDs.
- the private sector should support postgraduate students with research grants in their own institutions as well as in the teaching and learning sector (Cooperative Governance Traditional Affairs, 2018).

Several actions are listed to meet the objectives of the NDP. These actions include the implementation of '*a National Programme to develop the next generation of academics for South African Higher Education*' (Cooperative Governance Traditional Affairs, 2018).

The educational environment plays a key role in the development and success of postgraduate students. The higher educational institutions play an integral role in the postgraduate student's achievement and satisfaction. On the other hand the satisfaction will relate to the student's career commitment and positive professional attitude. Postgraduate students form part of the higher educational environment and therefore their presence will have an influence on it (Botha, 2018).

2.2 THE ROLE OF INTEGRATED REPORTING

ICAS is a global professional body for chartered accountants. It describes *integrated reporting* as reports used to improve the effectiveness of corporate reporting (ICAS, 2015). ICAS (2015) states that integrated reporting 'aims to build on reporting developments to provide a more holistic form of reporting the value created by a business, by considering

non-financial resources such as human, social and intellectual capatials as well as financial capital.'

In the past companies only reported on financial information. Over the years the reporting structure has evolved in such a way that information is structured to allow stakeholders to form a detailed understanding of all aspects of a business. The information of an integrated report will cover not only financial information, but also include the strategy, value creation process, future outlook, and environmental, social and governance elements (SAICA NPO, 2019). Integrated reports and government publications on hgher education in South Africa are electronically available on the web. Annual reports for higher education institutions are published annually. These reports form an integral part of the present research.

In the United Kingdom several universities tested and explored the principles of integrated reporting in their sector (Banerjee, 2018). University annual reports that were based on the principles of integrated reporting showed insight into how to tackle current challenges and how higher education could create value. The shift in perspective focuses on a multi-stakeholder approach which also includes students, strategic partners and funders (Banerjee, 2018).

According to Banerjee (2018), 'integrated thinkinng brings the different stakeholders of a university into the same level playground when it comes to understanding impacts and outcomes'. The principles of integrated reporting are about the understanding of the relationship between the resources available to the university and the stakeholders impacted by the activities of the institution.

Non-financial stakeholders work through the annual reports of a university and do not focus on the financial approach of the university, but rather on non-financial measures of success which support the academic mission. Some stakeholders, which include students, tend to fulfil an academic mission and make a positive impact on society (ACCA Global, 2019). Prospective students form part of the stakeholders who will investigate institutions to further their studies. With integrated reporting applied, the value of financial support for students is included as well as the throughput rate of a university.

2.3 HIGHER EDUCATION IN SOUTH AFRICA

In South Africa there are three ministries that deal with education services (Statistics South Africa, 2017):

- i Ministry of Social Development, which deals with early childhood education and care
- ii Ministry for Basic Education, which is responsible for primary and secondary schools
- iii Ministry for Higher Education and Training, which is responsible for adult education and skills training at colleges and universities.

The DHET sets goals and a framework for higher education in South Africa. The DHET is also responsible for overseeing the funding of the higher education system (Statistics South Africa, 2017). The DHET assists the post-school education and training (PSET) system to meet the skills needed for the development of South Africa. The objectives of the DHET include the following (Department of Higher Education and Training, 2019):

- Ensure economic growth and social development by increasing the rate at which key skills are delivered
- Serve the people who seek education and training outside the schooling system
- Provide quality learning.

The DHET has oversight over three main categories of PSET institutions, namely (Department of Higher Education and Training, 2019).

- i Public and private higher education Institutions
- ii TVE Colleges
- iii Community Education and Training (CET) Colleges and private colleges.

The higher education system in South Africa is characterised by public and private higher education institutions (Costa, 2018). In South Africa there are 26 public higher education institutions that consist of 6 comprehensive universities, 14 conventional universities and 6 universities of technology.

Section 3 of the South African Qualification Authority Act 58 of 1995 (Saq, 2019) directs the development and implementation of the National Qualifications Framework (NQF). The National Qualifications Framework Act 67 of 2008 defines the NQF. Among other things, the NQF sets the framework for standardisation, classification, learning achievements, training and outcomes (Saq, 2010). The NQF has ten levels of qualifications that provide a broad description of learning outcomes for a specific level of qualification (Statistics South Africa, 2017). Table 2.1 provides the NQF levels for universities. The present research includes NQF levels 9 and 10 students (Statistics South Africa, 2017).

Table 2.1: National Qualification Framework levels for universities

University					
Year 1	Year 2	Year 3	+ 1 year	+3–5 years	+1–2 years
Higher Certificate	Diploma	Degree	Honours	Master's	PhD
NQF 5	NQF 6	NQF 7	NQF 8	NQF 9	NQF 10

Source: Adapted by Stats SA from SAQA as cited by Education Series Volume V, 2017 (Statistics South Africa, 2017).

Table 2.2 provides a clear indication of South African universities and the number of students enrolled. This present research only focuses on the dropout students of one large university.

Table 2.2: South African universities listed by category, (2018)

Category	Small (enrolments below 20 000)	Medium (enrolments of 20 000 – 29 999)	Large (enrolments of 30 000 and above)
Category One: Universities	University of Limpopo, University of Western Cape, University of Fort Hare, Rhodes University	University of the Free State, University of the Witwatersrand, University of Cape Town, University of Stellenbosch	University of Pretoria, North-West University, University of KwaZulu-Natal
Category Two: Universities of Technology	Vaal University of Technology, Central University of Technology, Mangosuthu University of Technology	Cape Peninsula University of Technology, Durban University of Technology	Tshwane University of Technology
Category Three: Comprehensive Universities	University of Venda, University of Zululand	Walter Sisulu University, Nelson Mandela University	University of South Africa, University of Johannesburg

Source: Costa, 2018.

The Academic Ranking of World Universities (ARWU) (Times Higher Education (THE), 2019) ranked over 1 300 universities worldwide and published the top 800 names. South African universities were represented as follows:

- University of Cape Town – 229
- University of Witwatersrand – 317
- University of KwaZulu-Natal (UKZN) – 349
- Stellenbosch University – 421
- University of Pretoria – 459
- University of Johannesburg – 655
- North-West University – 808.

Five key areas are linked to the ranking of universities, namely

- i teaching and learning environment
- ii volume, income and reputation of research
- iii citation of research
- iv international outlook with regard to staff, students and research
- v industry income (Times Higher Education (THE), 2019).

Industry income refers to a university's ability to attract funding and willingness to pay for research (Times Higher Education (THE), 2019). As stated in previous research, funding is one of the major causes preventing Master's and doctoral students from completing their studies.

2.4 ENROLMENT AND GRADUATION RATES IN SOUTH AFRICA

The DHET (2017) reported that the highest number of students who graduated with Master's degrees in South Africa were from the University of Pretoria (1 897 students) followed by the University of Stellenbosch (1 358 students). These universities also enrolled a large number of students for Master's degrees (6 911 and 4 902 respectively). The highest number of students who graduated with doctoral degrees were from the University of KwaZulu-Natal (UKZN) and the University of Pretoria (338 and 333 students respectively).

These figures relate to enrolment of students and are not an indication of students graduating after completion of their studies (Department of Higher Education and Training, 2018).

2.4.1 Enrolment rates

The Organisation for Economic Co-operation and Development (OECD) (2019) data describes *enrolment rates* as a calculation where the number of students of a particular age enrolled is divided by the size of the population of that age. In general, the enrolment figures are based on head counts and do not distinguish between full-time and part-time studies (Organisation for Economic Co-operation and Development (OECD) Data, 2019).

Table 2.3 shows the percentage of students enrolled at South African universities by nationality in 2000 and 2016. The figures are a clear indication of the growth of Master's and doctoral students of foreign origin studying in South Africa (Statistics South Africa, 2017).

Table 2.3: Percentage of students enrolled at South African public universities by nationality

	South Africa		SADC countries		Other African countries		Foreign		Unknown	
	2000	2016	2000	2016	2000	2016	2000	2016	2000	2016
Doctorate (NQF 10)	1.0	1.4	1.4	7.7	6.5	30.4	7.2	10.4	1.9	10.4
Master's (NQF 9)	5.3	5.1	6.6	13.5	15.6	23.5	15.8	16.1	5.0	20.2

Source: Department of Higher Education and Training (HEMIS) as cited by Education Series Volume V, 2017

From 2000 up until 2016 there was not much growth in the number of South African students who obtained Master's and doctorate qualifications (Statistics South Africa, 2017).

Students can register as contact or distance students. Contact students are registered for courses offered in contact mode, whereas distance students are mainly registered for courses offered in distance mode. Table 2.4 provides the number of foreign students who were registered at South African higher education institutions in 2017.

Table 2.4: Number of foreign students enrolled in public higher education institutions by country, attendance mode and qualification type, 2017

Country	Contact			Distance			Total
	Postgraduate below Master's level	Master's degrees	Doctoral degrees	Postgraduate below Master's level	Master's degrees	Doctoral degrees	
Zimbabwe	801	2 543	2 152	1 680	570	322	8 068
Namibia	424	718	175	1 138	122	30	2 607
Nigeria	176	836	1 533	128	84	79	2 836
Democratic Republic of the Congo	87	285	109	64	38	19	602
Lesotho	253	540	205	125	41	12	1 176
Swaziland	107	308	138	215	109	19	896
Zambia	71	341	229	43	41	29	754
Botswana	91	319	141	43	29	19	642
Kenya	67	293	399	23	51	41	874
Congo	31	105	82	26	6	3	253
Other foreign nationalities	719	2 868	2 647	482	241	649	7 606
TOTAL	2 827	9 156	7 810	3 967	1 332	1 222	26 314

Source: Department: Higher Education and Training, 2019

The highest proportion of foreign national students at postgraduate level, studying in South Africa, was from Zimbabwe. From the information provided in Table 2.4 it is clear that international students tend to enrol through contact mode.

Table 2.5 includes all students enrolled in public higher education institutions in South Africa, during the period 2009–2017 and indicate an overall upward trend throughout this period. Students enrolled for doctoral degrees increased by 114.4% over the period 2009–2017 while the Master's level enrolments increased by 36.2% for the same period.

Table 2.5: Number of students enrolled in public higher education institutions by qualification type, 2009–2017

Year	Postgraduate below Master's level	Master's degrees	Doctoral degrees
2009	74 495	43 723	10 529
2010	80 321	46 699	11 590
2011	86 188	48 873	12 832
2012	85 501	49 561	13 965
2013	91 494	52 217	16 039
2014	86 730	53 675	17 943
2015	88 602	55 546	19 513
2016	91 866	57 290	21 510
2017	101 450	59 153	22 572

Source: Department of Higher Education and Training, 2019

Although Table 2.5 indicates a constant growth in the enrolment figures in South Africa, there is no assurance that these students will complete their qualifications in the minimum prescribed time or complete their studies at all.

2.4.2 Graduation rates

Only a few South African students progress to advanced levels of study (Statistics South Africa, 2017). Letseka *et al.*, 2010 (cited by DoE 2010) stated that the National Plan for Higher Education raised their own concern that South Africa's graduation rate was one of the lowest in the world.

Although the Post School Education and Training (PSET) Report (Department of Higher Education and Training, 2019) mentioned that the number of students who enrolled yearly for higher education and training increased every year, the dropout figures remained a concern. According to the PSET report released in March 2017, the average graduation rates in 2015 ranged between 13% and 43% across universities and on all levels of study. The highest average graduation rate was for postgraduate studies below Master's at 43%. The lowest graduation rates were for doctoral degrees at 13% (Department of Higher Education and Training, 2017). These rates indicate a potential financial loss for the institutions where students drop out after receiving bursary money from university funds.

Table 2.6 clearly states that non-South African students were more likely to achieve their Master's or doctorate degrees (Statistics South Africa, 2017).

Table 2.6 Percentage of students graduating from public universities by nationality

Qualification	South Africa		SADC countries		Other African countries		Foreign	
	2000	2016	2000	2016	2000	2016	2000	2016
Doctorate (NQF 10)	0.9	0.8	2.0	4.4	4.1	14.5	6.6	20.4
Master's (NQF 9)	6.2	5.3	10.6	15.2	26.8	32.8	20.5	27.1

Source: Education Series Volume V, 2017

Table 2.6 represents the graduates as a percentage per nationality, whereas Table 2.7 states the number of graduates per qualification level. Therefore, 2 637 foreign students completed their Master's qualifications compared with 682 South African students during 2016, in South Africa.

Table 2.7: Number of graduates from public higher education institutions by qualification type, 2009–2017

Year	Postgraduate below Master's level	Master's degrees	Doctoral degrees
2009	26 591	8 112	1 380
2010	30 088	8 633	1 421
2011	31 801	9 690	1 576
2012	33 385	10 334	1 879
2013	37 913	10 809	2 051
2014	37 117	11 627	2 258
2015	37 953	11 936	2 530
2016	40 213	12 862	2 797
2017	43 377	12 951	3 057

Source: Department of Higher Education and Training, 2019

The University of Pretoria delivered the majority of Master's degree graduates and UKZN delivered the highest number of doctoral graduates. There has been a consistent increase in the number of Master's and doctoral graduates over the years.

Table 2.8 lists higher education institutions in South Africa and the percentage of postgraduates who successfully completed their studies at these institutions.

Table 2.8: Graduation rates in public higher education Institutions by qualification type and institution, 2017

Institution	Postgraduate below Master's level	Master's degrees (%)	Doctoral degrees (%)
Cape Peninsula University of Technology	92.1	6.0	6.0
University of Cape Town	69.0	21.3	13.3
Central University of Technology, Free State	50.3	12.6	12.8
Durban University of Technology	n.a.	16.4	9.3
University of Fort Hare	57.9	14.6	15.0
University of the Free State	56.0	21.4	13.4
University of Johannesburg	60.4	22.5	11.7
University of KwaZulu-Natal (UKZN)	69.2	18.5	12.3
University of Limpopo	70.1	17.9	9.8
Nelson Mandela University	63.6	21.8	15.3
North-West University (NWU)	44.4	25.9	14.7
University of Pretoria	57.2	30.5	15.3
Rhodes University	78.8	25.8	14.6
University of South Africa	24.1	17.7	12.6
University of Stellenbosch	72.0	32.4	18.0
Tshwane University of Technology	32.8	14.9	13.7
University of Venda	72.0	25.7	11.9
Vaal University of Technology	51.5	20.5	7.0
Walter Sisulu University	38.3	6.1	16.1
University of the Western Cape	58.4	19.1	12.4
University of the Witwatersrand	65.4	23.2	13.2
University of Zululand	74.6	18.1	12.6
Sol Plaatje University, Northern Cape	n.a.	n.a.	n.a.
University of Mpumalanga	48.6	n.a.	n.a.
Mangosuthu University of Technology	60.4	75.0	n.a.
Sefako Makgatho Health Science University	67.5	14.4	16.5
AVERAGE PERCENTAGE	42.8	21.9	13.5

Source: 2017 HEMIS database as cited by the Department of Higher Education and Training, 2019

Note1: These graduation rates serve as proxies for throughput rates of cohorts of students (Department of Higher Education and Training, 2019).

Note 2: The benchmark in the National Plan for higher education was set on the basis that at least 75% of any cohort of students entering a programme should complete their degrees (Department of Higher Education and Training, 2019).

According to Styger *et al.*, (2015), '*in theory, class fees for an entire year are lost from students who leave the university before completing their studies. It would be wise to consider the student dropout rate in determining class fees in order to price in the unexpected losses and be insured in some way.*' Styger *et al.*, (2015) calculated the

expected loss of subsidy at one specific higher education institution from dropouts at Master's degree level to be more than R46 million and at doctoral degree level at over R59 million per annum. The figures used by Styger *et al.*, (2015) do not include the loss in class fees or university-funded bursaries allocated to these dropout students.

A study conducted into Master's students at UKZN indicated that financial aid does have a positive effect on reducing the dropout figure. After year one, 35,4% of the students enrolled dropped out and 53% registered for the second year to continue their studies. After year two another 21.5 % dropped out and 37.9% continued their studies for the third year. After year four, only a few students retained in the programme to complete their studies. Students who did drop out because of funding stated that the funding was no longer sufficient for their needs (Zewotir *et al.*, 2015). The study conducted at UKZN addressed the dropout figure and financial aid as a reason for the dropout and stated that financial assistance had a significant effect on the throughput figures from year three onwards. The financial impact on UKZN with regard to university-funded bursaries and the loss in class fees was not addressed in this study. It was also mentioned that students must weigh up the costs and benefits of completing and entering the job market with a Master's or doctoral degree (Zewotir *et al.*, 2015).

2.5 CHALLENGES AND TRENDS IN HIGHER EDUCATION

The challenges in higher education are discussed in the next paragraphs and are divided into challenges encountered by students and challenges encountered by the university.

2.5.1 Challenges encountered by students

Students at postgraduate level experience several challenges during their study period. Lategan (2015: 43-59) listed several factors contributing to a delay or non-completion of studies, these factors included the following;

- Lack of money
- Lack of facilities
- Family responsibilities

- Lack of support for research projects
- Poor supervision which included limited feedback and support
- Difficulties in mastering the research process.

Other challenges that may hinder students from completing their studies include the following (Uleanya *et al.*, 2017):

- Previous learning experience
- Distance from campus
- University policies

Lategan (2015) stated that postgraduate students tended to take longer to complete their studies. This is based on multiple registration years. A national study indicated that the completion of a doctoral study may take an average of 4.8 years, which is not always available for the extended period of study (Lategan, 2015). According to Lategan (2015), ample funding options exist for students but students do not always make use of these offers.

2.5.2 Challenges encountered by universities

The DHET has reported on the funding of students and the link between the DHET and the NDP for years. The higher education system plays an integral role in the achievement of goals and targets of the NDP 2030 (Department of Higher Education and Training, 2014). In the Report of the Ministerial Committee for the Review of the Funding of Universities, the DHET (2014) describes the production of graduates at postgraduate level as worrying. Postgraduate student throughput needs to increase drastically in order to provide knowledge and innovation that is needed for the development of South Africa. The Report of the Ministerial Committee for the Review of the Funding of Universities (2014) further states that 'the biggest challenge for the funding framework is ensuring that the existing high-level knowledge production universities are supported adequately, to ensure that these gains are retained'.

The funding framework was introduced in 2003 and contributes positively towards the growth of all universities. Despite the improvement mentioned, the dropout rate at

postgraduate level of studies still raises concern and needs to be addressed urgently (Department of Higher Education and Training, 2014). Targets that were set for higher education institutions included an overall increase in graduates, more than 100 doctoral graduates must be delivered per million of the population, and an increase in African and women PhD postgraduates (Department of Higher Education and Training, 2014). These targets are challenging for universities and not necessarily achievable. The DHET (2014) reported that only 28 PhD graduates per million of the population were delivered per year.

Universities also experience internal challenges with regard to policies and procedures. According to Uleanya *et al.*, (2017), university policies and procedures have an influence on the learning abilities of students. Policies and their implementation can have a negative impact on the learning abilities of students. When proper policies are drafted and implemented, it will enhance the student learning experience at university (Uleanya *et al.*, 2017). Students are exposed to various policies and procedures during their study period at a university. These policies and procedures include the following:

- Application to study at a university
- Registration process
- Application for funding
- Cancellation or termination of studies
- Graduation.

Mabunda *et al.*, (2012) highlight the complexities in determining the dropout rates at a South African university and stated that in most cases students drop out in the first year of study. Students tend to drop out without informing the institution or without following the institution's procedures. Students may also drop out and continue studies at a later stage. Some students will continue studies at other institutions. All these factors complicate the process of keeping track of students and their success rate with regard to achieving their goals.

The Ministerial Statement on University Funding (Department of Higher Education and Training, 2018) stated that universities had the obligation to ensure that available funding was utilised effectively. Measures may include the reduction of overheads related to the core functions of the university and improving debt collection.

At the beginning of 2019 students requested that historical fees debt to be scrapped (Macupe, 2019). Macupe (2019) mentioned in his report that the amount owed to universities for historic debt amounted to R9 billion. The scrapping of such an amount of outstanding debt could be the downfall of universities in South Africa (Macupe, 2019). Students with outstanding historic debt are excluded from the current year's registration process.

Students who fail modules and have to repeat these modules in coming years contribute to outstanding debt. Students that fail modules make it difficult for universities to support them financially. Macupe, 2019 stated that universities had policies in terms of dealing with self-paying students with outstanding debt. Furthermore, universities are urged to find ways of assisting these students with good academic standing in order to complete their studies.

Political parties are associated with the election process for student representatives on campuses. This involvement creates a risk of student power becoming overly , which may bring negative influences on campuses. North-West University (2017) stated in an integrated report that the involvement of student leaders in politics had the potential to disrupt and destabilise the teaching and learning environment.

2.6 RECENT TRENDS AND CHALLENGES

Botha (2018) raised his concern with regard to the high dropout rates of students and the length of time that it took postgraduate students to complete their studies. A high number of postgraduate students would terminate their studies or drop out from university before graduation.

Botha (2018) concluded with the explanation that throughput was about making adequate provision in the academic environment. Adequate provision would help students to complete their studies on schedule, improve their success rates in the various programmes and prevent them from dropping out of the system. Adequate institutional strategies could contribute positively towards increasing success rates and reduce dropout rates. These strategies include the strategic decisions of a university with regard to the allocation of bursaries to students at postgraduate level of studies (Botha, 2018).

Nevill and Chen (2017) state that the lack of financial support is the main cause for students at postgraduate level of studies to drop out from university. Postgraduate students can find it difficult to balance work, family and educational responsibility (Nevill & Chen, 2017).

There are several variables that influence student throughput which include the financial independency of the student and demographic factors. Demographic factors with regard to students who dropout after receiving bursary money from the institution form part of the present research.

Botha (2017) found that postgraduate students struggled to get adequate financial support for their studies to meet the high cost of research. The lack of funds would cause a student to extend the study period or drop out completely.

Mastre and Roberts (2018) explain that there are several decisions that influence students to drop out or continue their studies. Internal influences are explained as the 'set of values, beliefs, attitudes, skills and abilities' of the student (Mastre & Roberts, 2018). Internal influences can include students' locus of control, goal orientation, prior knowledge and study skills. External influences can be out of students' control, but will influence their decision to drop out. The external influences include support from the family and work, social isolation, life events and lack of time. Institutional influences are out of students' control and include logistical and technology support, course design and financial assistance (Mastre & Roberts, 2018). All of these influences contribute to students' decision to drop out.

Assisting postgraduate students with completing their studies have several advantages for the student and for universities. These advantages include economic independence for the student and their families. Students who complete their postgraduate studies contribute to a healthy economy and a more equitable society (Chaplot *et al.*, 2015).

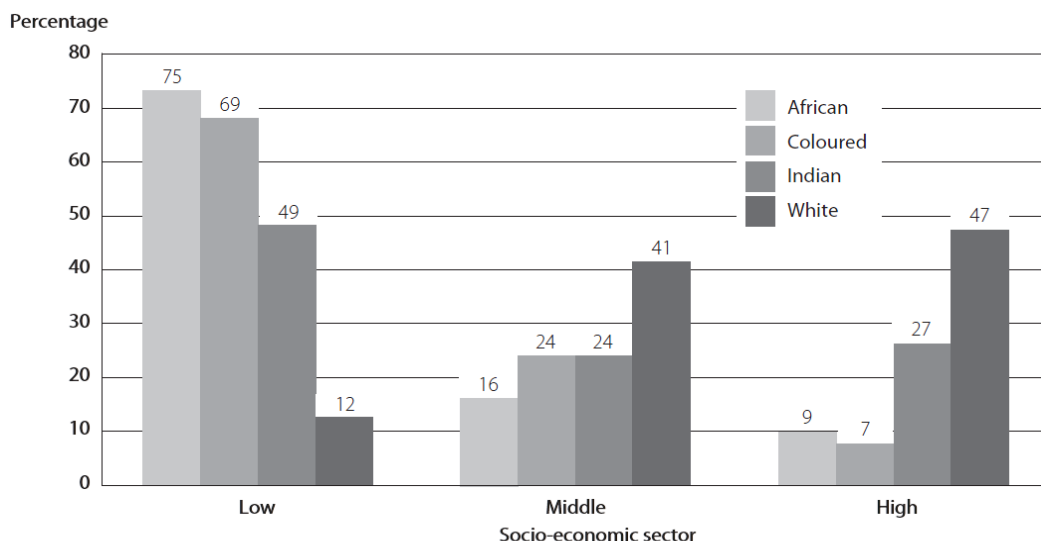
Chaplot *et al.*, (2015: 8) state that 'higher education increases the chances for adults and their families to move up the socioeconomic ladder, putting them on a path to economic independence and self-sufficiency.'

Inadequate processes and policies may have an unintended negative impact on struggling students (Chaplot *et al.*, 2015). By reviewing the processes and policies for low-income or struggling students may contribute positively towards the throughput of postgraduate students.

2.7 SIGNIFICANCE OF DROPOUTS

Both student-related and institution-related dynamics have an impact on student throughput and the time students take to complete their postgraduate studies (Botha, 2018).

Letseka *et al.*, (2010) pointed out in a study they conducted involving 2 163 (15%) respondents from seven universities that 55% formed part of the low socio-economic sector, 22% from the middle and 21% from the high socio-economic sectors.



Note: Missing values have been factored out.

Source: Adapted from Letseka, *et al.*, (2010)

Figure 2.1: Non-completer respondents' socio-economic status, by race

Botha (2018) stated that several resources were wasted when students did not complete their studies in time or dropped out. These resources included time spent by lecturers and money spent by the university. Dropping out will contribute to a lower self-esteem for the students concerned. Dropout students may communicate a negative perception of the university.

Overall, a higher throughput of postgraduate students will contribute to a better economy with a more educated workforce (Chaplot *et al.*, 2015). Unemployed or un-skilled workers rely on government subsidy, and therefore place a financial strain on government funds. Conversely, with higher employment rates and a more skilled workforce, government can enjoy higher tax revenues (Chaplot *et al.*, 2015). Chaplot *et al.*, (2015: 9) state that *'adults with higher levels of education demonstrate behaviours associated with increased civic engagement. They are more likely to vote and volunteer in their communities, and they report a higher level of understanding of political issues.'*

2.8 CONCLUSION

Students need to complete undergraduate studies before they can enrol in postgraduate studies. Although undergraduate dropout rates are also raising a concern, the present research focuses on the current dropout figure at postgraduate level and the loss of university-funded bursary money. A large number of postgraduate students drop out of university due to personal or institutional challenges during their period of study. South Africa still has challenges with regard to the success and poor completion rates of postgraduate students.

Owing to continual changes in the higher education environment, current policies and procedures may not be adequate to limit the financial risk for institutions. The need exists for universities to assist in building the capabilities of students and to encourage them to complete their postgraduate studies in the required time.

The efficiency of investing in postgraduate students is much higher than in undergraduate studies. It is therefore important to understand the risk of financial losses due to the high number of dropout students. These losses are not limited to the bursary money but also involve class fees and subsidy income. Previous research indicates that student dropout rates play a negative role in the South African economy. Postgraduate students play a vital role in producing a workforce who can contribute to the national shortage of skills in the country.

University policies and procedures form part of the student learning experience. These policies should contribute positively towards the quality and productivity of students. However, students must be familiarised with university policies and maximise the provision of these policies.

Postgraduate studies include research, which is integral to the development of South Africa. Universities should consider establishing a funding project in order to assist postgraduate students with research. Research on the dropout students in South Africa indicates that more research is needed. National trends may also influence the dropping out of students from their postgraduate studies.

CHAPTER 3: EMPIRICAL STUDY

3.1 INTRODUCTION

The aim of the present study was to investigate the number of dropout students at postgraduate level who received university-funded bursaries. These postgraduate students can be further grouped into graduates and dropouts. This research represents a group of postgraduate students who received bursary money from university funds and did not complete their studies. This group is referred to as dropouts.

In order to identify and understand the culture, priorities, resources and current process, the researcher needed to analyse the data of a higher education institution of the postgraduate dropout group. The research can be used to make sense of the current composition of students in the postgraduate group and to increase potential opportunities for the institution. By taking the research into consideration, recommendations could be made to increase the number of students that would achieve success and also contribute to long-term economic independence (Chaplot *et al.*, 2015).

This research consists of a cross-case analysis to identify similarities and differences. Data that contain postgraduate students who completed their studies were eliminated from the population to form a sample that directly related to the objective of the study. The data provided case-specific insight and assisted in the investigation of patterns across the group. By making use of analytical techniques such as time-series, the chronological sequence of events can be presented in detail to trace and explain changes over time. A cross-case technique can assist in the study of secondary questions where variables will be investigated as a single study. By selecting and analysing categories, the researcher can look for similarities and differences within the group.

The outcome of the variances can be analysed thematically with an emphasis on processes, issues or problems. The outcome in the present research is demonstrated by the use of tables and figures to summarise the case evidence.

3.2 OVERVIEW OF THE ORGANISATION

The university used in this research is not named since the high level of dropouts at postgraduate level applies to all universities in South Africa, as illustrated in Table 2.8 (Chapter 2). Further studies may be needed with regard to the processes followed by universities when allocating university-funded bursaries to postgraduate students.

Student recruitment plays an integral role in the annual enrolment targets of a university. Annually, skilled support staff assist students with the admission and registration process. This process relates to undergraduate and to postgraduate students. The university strives to support needy students by using its financial capital to support the university's strategy. The university has a commitment to social justice and support for the academic performance of students to ensure the future sustainability of the university (NWU, 2017).

The 2017/2018 Profile Report (NWU, 2017) reveals some statistics regarding the pass rate at postgraduate level, as illustrated in Table 3.1:

Table 3.1: Qualifications conferred

Degrees awarded	2012	2013	2014	2015	2016
Master's	670	781	746	742	744
PhD	154	168	171	222	238

Source: North-West University, 2017

The number of PhD degrees awarded increased from 87 in 2004 to 238 in 2016 (NWU, 2017). This amounts to a 174% growth over the past 12 years.

Table 3.2 illustrates the enrolments, graduates and dropout figures for the two years 2016–2017 per faculty. Data were limited and were not available for previous years.

Table 3.2: Registrations, Enrolments, Discontinue, Graduates

<i>Faculty</i>	2016			2017		
	Enrolments	Graduates	Dropouts	Enrolments	Graduates	Dropouts
<i>No faculty</i>	0	0	21	0	0	0
<i>Faculty of Agriculture Science and Technology</i>	463	154	4	532	174	4
<i>Faculty of Arts</i>	472	200	15	489	216	13
<i>Faculty of Commerce and Administration</i>	512	207	2	621	264	10
<i>Faculty of Economic and Management Sciences</i>	1 297	761	59	1 346	818	44
<i>Faculty of Economic Sciences and Information Technology</i>	304	177	20	311	136	12
<i>Faculty of Education and Training</i>	547	178	25	654	260	22
<i>Faculty of Education Sciences</i>	5 835	1 237	3 337	4 445	1 341	3 420
<i>Faculty of Engineering</i>	388	78	9	418	100	4
<i>Faculty of Health Sciences</i>	1 156	521	39	1 207	482	37
<i>Faculty of Human and Social Sciences</i>	358	131	10	374	126	5
<i>Faculty of Humanities</i>	731	271	133	649	293	165
<i>Faculty of Law</i>	250	132	8	262	50	7
<i>Faculty of Natural Sciences</i>	849	343	16	928	441	24
<i>Faculty of Theology</i>	386	82	27	390	87	18
TOTAL	13 548	4 472	3 725	12 626	4 788	3 785

Source: Adapted from PowerHEDA Dashboard (2017)

The dropout figures in Table 3.2 must be viewed in relation to the enrolment figures for each faculty. The lowest dropout figure for 2016 was in the Faculty of Commerce and Administration. If evaluated in proportion to the enrolment figure for the other faculties, this faculty does not have the lowest dropout rate. Table 3.6 illustrates the lowest dropout figures as a percentage of the enrolment and therefore provides a better view of the breakdown of dropouts per faculty.

3.3 GATHERING OF DATA

The data used are historical and current data. The researcher utilised available data of one higher education institution and electronic resources to assist in the research.

Combined data were used to calculate the number of university-funded bursaries received by the dropouts and secondary variables were analysed. By studying the different years, the researcher could trace and comment on changes over a period. Research conducted on the different categories highlights similarities and differences.

Figure 3.1 show the process followed to address the research question and analyse the data at a higher education institution.



Figure 3.1: Process flow diagram

Information regarding the throughput and dropping out of students are published in the annual reports of universities as well as by DHET. Bursary money paid from university funds must be linked to the dropout students in order to analyse the financial risk and understand the variables of the secondary data.

The use of content analysis addresses the question of

- **Who** (all postgraduate students, including their age, gender and race)
- **What** (dropout students at a postgraduate level)
- **Where** (at a specific institution and at which faculty)
- **Location** (region of residence)
- **How much** (Value Of bursary money paid to dropout students)
- **Why** (to determine the financial impact of bursaries paid to students at a post graduate level and the relationship to dropouts. The research can be relevant to future allocations of bursaries)

Quantitative content analysis is described as a method of analysis in which textual data is systematically categorised and analysed (Coe & Scacco, 2017)

3.4 RESEARCH METHODOLOGY

This research study is structured analytically. The aim is to identify any causal links between the variables that relate to the research problem. Quantitative research was conducted to inquire into the identified problem. A quantitative approach enabled the researcher to understand and explain the variables that relate to the research problem.

3.5 TARGET POPULATION

This research covers the period 2012–2017. Master's degree studies can be completed in two years, whereas doctoral studies can be completed in three years. Data for the period 2012–2017 provided a large sample and included students that took longer than necessary to complete their studies. Some of the students included in the data collection may have been in the process of finishing their studies and may therefore have caused a slight over statement of unrecovered bursary funds. Due to the unavailability of data, the analysis of

the secondary question which relate to the faculty dropout rate contains only data from the period 2016–2017. This is noted in the discussion of the results and conclusion as a limitation to the study.

Students who achieved their degrees during 2012–2017 were eliminated from the group and were seen as deserving students who did not need to pay back any bursary money to the institution.

When analysing the data, the loss in class fees could also be calculated based on the maximum time required to complete the studies. This calculation did not form part of the investigation.

Investigation of the data related to the qualification, faculty, gender, race and region of residence, which assisted in answering secondary questions. The variables from the secondary questions were investigated to highlight the relationship with dropouts at postgraduate level who received university-funded bursary money.

3.6 SAMPLING

The researcher made use of a non-probability sample, since no random selection method was used (Bryman *et al.*, 2017). With non-probability sampling some units of population are more likely to be chosen and in this case represent the postgraduate students. The method of non-probability sampling used is quota sampling. With quota sampling the population is divided into segments. A quota sampling unit is then selected representing each subgroup (Bryman *et al.*, 2017). By using quota sampling, it is easy to stay within the researcher's budget since this method is relatively cheap, and the data are relatively quick to obtain and manageable.

The data sample is a cross sectional study which includes enrolled students, graduates and bursary money paid over a period. Owing to the data included in the sample, it was possible to compare different variables at the same time. The study aimed to make comparisons at a single point in time.

The data also indicated the length in years until the student dropped out from the current institution. A deeper investigation into external factors, such as recession and other economic challenges, revealed that particular events could be linked to certain years. It is not the aim of the present study to define the years until completion or dropout of studies or the cause of the variables. However, the data can be used to answer some secondary questions and further research.

Students from the sample who dropped out may have continued their studies at other universities. Students that continued their studies at other institutions cannot be identified when making use of data from only one institution. The bursary money allocated to the dropout group will still pose a financial risk for the initial institution if the students do not complete their studies at the institution where they registered for postgraduate studies for the first time.

Students who did not receive any university-funded bursaries and dropped out were also excluded from the research. The remaining number of students formed the sample and represent the number of dropouts.

In this research it is important to highlight variations that occur in the data sample. These variations are typically students who did not complete their studies and received bursary money funded by the university.

3.7 UNIT OF ANALYSIS

The population consists of all registered postgraduate students per year from 2012 to 2017. The students who obtained a degree were eliminated from the lists. The remaining students who formed the dropout group are therefore the sample. In this case the unit of analysis is this group. The performance of each year's group was evaluated.

Secondary information related to the group analysis outcome can be an indicator of problem areas related to the dropping out of students. The sample represents all dropout students in each year.

The research does not focus on the individual, but on the performance of the group and the amount of bursary money lost due to students dropping out.

It is important to produce a trustworthy investigation. In order to achieve trustworthiness and credibility, all reports are system-driven and electronically available. Some of the techniques used to assist in achieving dependability included in the study are as follows:

- Assumptions behind the study are explained
- Multiple methods of data collection include available data from a higher education institution and electronic resources
- Only data that related to university-funded bursaries were selected
- Non-personified data were used for this research.

Therefore, this quantitative study aimed to analyse a sample group of dropout postgraduate students at a higher education institution in South Africa in order to achieve the objectives as set out in Chapter 2. In the following section the researcher discusses the results obtained from this analysis.

3.8 RESULTS AND DISCUSSION

During the period 2012–2017 the university paid out R85.8 million in university-funded bursaries to postgraduate students. For that same period the average enrolment rate was 3 462 students per year, with a dropout rate of 66.14%. This means that, on average, 2 290 postgraduate students dropped out per year. This resulted in a loss of R56.7 million per year.

Owing to time constraints, statistical analysis was only applied to the variables relating to faculty and geographic location. In the following paragraphs the results regarding the variables that relate to gender, race, geographic location and faculty are discussed.

3.8.1 Gender

Table 3.3 illustrates the gender per qualification as a percentage of the total dropout figure from 2012 to 2017. It is noticeable that, in total, more students drop out at Master's level of study than on a Doctoral level. Only 3.8% more men drop out than women.

Table 3.3: Postgraduate dropouts per qualification and gender

	Doctorate (%)	Master's (%)	Total (%)
Female	12.99	35.08	48.08
Male	16.92	34.97	51.91
Unknown	–	0.01	0.01

During the period 2012–2017, 12.99% of female doctoral students dropped out, which resulted in a loss of R11.1 million, whereas 16.92% of male doctoral students dropped out, with a resultant loss of R15.5 million. At doctoral level, male students are more likely to drop out, while at Master's level female students are more likely to drop out. However, taking into account the total dropout rate of male and female students, male students are still more likely to drop out than female students. On Master's level, 35.08% of female students dropped out, which resulted in a loss of R30.1 million and 34.97% male students dropped out with a resultant loss of R30 million.

3.8.2 Race

As with the dropout rate in relation to gender, the dropout rate in relation to race is higher among Master's students than among doctoral students. In Table 3.4 it is clear that there is a high level of dropouts associated with African students at Master's level. A similar problem seems to occur with white Master's students. Coloured and Indian students at both doctorate and Master's level are both a very low percentage of the total dropout figure for the period 2012–2017.

Table 3.4: Postgraduate dropouts per qualification and race

	Doctorate (%)	Master's (%)	Total (%)
African	15.55	37.99	53.54
Coloured	0.63	2.13	2.76
Indian/Asian	1.00	1.26	2.26
White	12.59	28.31	40.90
Unknown	0.15	0.38	0.53

In total, the university lost R45.9 million in university-funded bursaries to African students dropping out of their postgraduate studies with white student dropouts resulting in the second highest loss of R35 million. Overall, the student population with the least number of dropouts is coloured students with a total dropout rate of 2.26% (R1,9 million). As regards doctoral studies, the population with the lowest dropout rate is coloured students, with a dropout rate of 0.63% (R540 646) and at Master's level it is Indian/Asian students, with a dropout rate of 1.26%, which resulted in a loss of R1 million.

While these data can provide one with a view of the financial implications of students dropping out, one still has to consider the practical importance of the data. Statistical analysis was used to assist with evaluating the practical importance of the results. In order to do this, the effect size of race was used. An effect size is the absolute difference between two measurements, divided by the maximum of their respective standard errors. This was achieved by comparing the minimum and maximum values in the dropout percentages for both doctoral and Master's levels of study (Department of Higher Education and Training, 2018).

Table 3.4 indicates that in the case of Master's students, the maximum dropout was observed in African students (53.54), as stated above. While a minimum value was observed for Indian/Asian students (2.26%). The effect size of the difference is calculated to be 1.028 in this case, which indicates a large practical significance.

In the case of doctoral students, the maximum is associated with African students (15.55%) and the minimum is 0.63% associated with coloured students. In this case, the effect size is calculated to be 0.412, again indicating that the observed difference is of practical importance.

The above indicates that African students drop out at significantly higher rates than students of Indian/Asian descent at Master's level. At doctoral level, African students drop out at significantly higher rates than students of coloured descent.

3.8.3 Geographic location

Foreign students who receive bursaries or have outstanding debt with the university are a financial risk for the institution. Outstanding debt on these accounts is irrecoverable due to the geographical location of the students. Students from the North West Province have the highest dropout at a total of 38.14%. Again, more students drop out at Master's level than at a doctoral level of studies.

Table 3.5: Geographic location at postgraduate level per qualification

	Doctorate (%)	Master's (%)	Total (%)
Foreign	5.17	4.22	9.66
Eastern Cape	3.00	6.22	10.71
Free State	1.49	5.32	7.62
Gauteng	3.64	11.19	16.18
KwaZulu Natal	0.77	1.25	2.25
Limpopo	1.07	3.41	4.96
Mpumalanga	0.28	1.35	1.83
North West	9.60	24.81	38.14
Northern Cape	0.24	1.15	1.49
Western Cape	0.68	1.11	2.03
Unknown	0.91	2.83	5.15

While foreign students do pose a greater risk to an institution due to the inability to recover outstanding debt, they only make up a small proportion of postgraduate students who dropped out, at a dropout rate of 9.66%. This led to a loss of R8.2 million in university-funded bursaries. As stated, postgraduate students from the North West Province have the highest dropout rate of 38.14%. This results in an annual loss of R32.7 million. For both Master's and doctoral degrees, students from the North West Province had the highest dropout rates of 24.81% and 9.60% respectively. This resulted in losses of R21.2 million and R8.2 million respectively.

Student dropouts from the North West Province therefore pose a greater risk than those from foreign students.

The student group with the lowest dropout rate are those from the Northern Cape Province, with a dropout rate of 1.49%, which resulted in a loss value of R1.2 million. This is also true for the dropout rates among Northern Cape Province students registered for Master's and doctoral studies, with dropout rates among students from them being 1.15% (R986 872) and 0.24% (R205 955) respectively.

An examination of the dropout rate of Master's students and doctoral students shows that except for foreign students there is a higher dropout rate among Master's students. As regards foreign students, students registered for a doctorate degree are more likely to drop out.

3.8.4 Faculty

In order to calculate whether the proportion of students who dropped out was influenced by the faculty in which the students were registered, a chi-squared goodness-of-fit test was conducted. The test is used to compare the observed sample distribution with the expected probability distribution. This test determines how well theoretical distribution fits the empirical distribution (Statistics South Africa, 2017).

The chi-squared goodness-of-fit test is used to test the null hypotheses stating that the faculty in which a student is enrolled does not influence the dropout rate, is calculated by using the squared difference between the observed number of dropouts (Table 3.6) and the expected number of dropouts should the faculty not play a role in dropout rates. From the data the value of the test statistic is calculated to be 82.521, with seven degrees of freedom, $p < 0.01\%$. As a result, the null hypothesis that states that the dropout rate is not influenced by the faculty in which students register was rejected.

From statistical calculations it could be said with reasonable certainty that the faculties in which students enrolled do play a role in the dropout rate.

Table 3.6 illustrates that the lowest dropout is at the Faculty of Education and Training at only 1.72%. The Faculty of Health Sciences has the highest dropout figure at 12.47%. At Master's level the Faculty of Economic and Management Sciences has the highest dropout figure at 8.8%. On the doctoral level the Faculty of Natural Sciences has the highest dropout rate at 3.30%.

Table 3.6: The average dropout per faculty at postgraduate level per qualification

Faculty	Doctorate (%)	Master's (%)	Total
Faculty of Agriculture Science and Technology	2.33	5.19	7.52
Faculty of Arts	1.86	3.95	5.81
Faculty of Commerce and Administration	2.06	5.56	7.62
Faculty of Economic and Management Sciences	1.61	8.80	10.41
Faculty of Economic Sciences and Information Technology	0.60	1.38	1.98
Faculty of Education and Training	0.53	0.91	1.44
Faculty of Education Sciences	1.45	2.08	3.53
Faculty of Engineering	2.04	5.17	7.21
Faculty of Health Sciences	2.91	7.91	10.82
Faculty of Human and Social Sciences	1.98	4.08	6.06
Faculty of Humanities	1.62	3.70	5.32
Faculty of Law	1.77	4.88	6.65
Faculty of Natural Sciences	3.30	6.34	9.64
Faculty of Theology	2.78	2.90	5.68

Even though it has been statistically proven that the faculty in which postgraduate students register does impact on the dropout rate, the financial impact needs to be taken into consideration. In order to explore the financial impact, data from the period 2016–2017 was used.

According to Table 3.2, an average of 13 087 students enrolled for postgraduate studies and 3 755 of these students dropped out. This results in a dropout rate of 28.69%. Table 3.7 was adjusted from Table 3.2 in order to showcase the average dropout rate per faculty.

Table 3.7: Average dropout rate per faculty for 2016 and 2017

Faculty	Average enrolment	Average dropout	Average dropout rate (%)
No Faculty	0	21	
Faculty of Agriculture Science and Technology	498	4	0,80
Faculty of Arts	481	14	8,52
Faculty of Commerce and Administration	567	6	1,06
Faculty of Economic and Management Sciences	1 322	52	3,93
Faculty of Economic Sciences and Information Technology	307	16	5,21
Faculty of Education and Training	600	24	4,00
Faculty of Education Sciences	5 140	3379	65,74
Faculty of Engineering	403	7	1,74
Faculty of Health Sciences	1 181	23	1,95
Faculty of Human and Social Sciences	366	8	2,19
Faculty of Humanities	690	149	21,59
Faculty of Law	256	8	3,13
Faculty of Natural Sciences	888	20	2,25
Faculty of Theology	388	23	5,93
TOTAL	13 087	3755	28,69

From the adjusted Table 3.7, it is evident that the Faculty of Education Sciences has the highest dropout rate (65.74%) which, if calculated according to the number of university-funded bursaries awarded for the period 2016–2017, resulted in a loss of R68.63 million. This is followed by the Faculty of Humanities, with a dropout rate of 21.59%, which resulted in a loss of R22.5 million. These two faculties alone account for over half of the money lost by the institution through university-funded bursaries with a sum total of R91.1 million.

The Faculty of Agriculture Science and Technology has the lowest dropout rate of 0.80%, resulting in a loss of R835 286, with the Faculty of Commerce and Administration with the second lowest dropout rate (1.06%), resulting in a loss of R1.1 million.

The other faculties ranked from the highest dropout rate to the lowest are the Faculty of Arts (8.52%, R8.9m), the Faculty of Theology (5.93%, R6.2m), the Faculty of Economic Sciences and Information Technology (5.21%, R5,4m), the Faculty of Education and Training (4.00%, R4.1m), the Faculty of Economic and Management Sciences (3.93%, R103 344), the Faculty of Law (3.13%, R3.3m), the Faculty of Natural Sciences (2.25%, R2.3m), the Faculty

of Human and Social Sciences (2.19%, R2.3m), the Faculty of Health Sciences (1.95%, R2m), and the Faculty of Engineering (1.74%, R1.8m).

3.9 SUMMARY

The outcome of the research can influence the way bursaries are allocated and the amount allocated per student or faculty. The process of recovering bursary money and the success rate of these recovery attempts can also be influenced by the outcome of this research.

Using the findings from the above-mentioned data, the researcher can conclude that the annual rate of postgraduate students who drop out has a significant financial impact on an institution of higher learning. This is evident in the R56.7mn lost per year due to student dropouts.

The findings also provided answers to the secondary research questions, in that the data revealed that, on average, male students had a higher dropout rate (51.91%) than female students (48.08%).

The data also showed that with regard to race, African and white students had higher dropout rates, with rates of 53.54% and 40.90% respectively. Coloured students had the lowest dropout rate in doctoral studies, with a rate of 0.63%, while students of Indian/Asian descent had the lowest Master's dropout rate of 1.26%.

Statistical analysis also indicated that African students had significantly higher dropout rates than India/Asian students at Master's level, while at doctoral level African students dropped out at significantly higher levels than coloured students.

As regards the geographic location of students, the North West Province consistently had the highest dropout rate, with a total dropout rate of 38.14%. Whereas the Northern Cape consistently had the lowest dropout rate of 1.49%. It is important to note that due to the nature of the data used, the dropout rates per province may be influenced by the proportion of students enrolled from each province. Therefore, these findings should be interpreted with caution.

Based on the data, the Faculty of Education Sciences and the Faculty of Humanities had the highest dropout rates, with rates of 65.74% and 21.59% respectively. While the faculties of Agriculture Science and Technology and Commerce and Administration had the lowest dropout rates, with rates of 0.80% and 1.06% respectively.

Statistical analysis indicated that the faculty, in which a student enrolls in, significantly influences the dropout rate.

CHAPTER 4: CONCLUSIONS AND RECOMMENDATIONS

4.1 INTRODUCTION

The purpose of this chapter is to discuss the financial impact on a university due to high dropout rates at postgraduate level and concludes with a discussion of the variables highlighted in the empirical study.

With the primary and secondary objectives in mind, the chapter was divided into two main sections. The focus is on a discussion of the statistical findings that relate to the dropout group at postgraduate level of studies.

The first section focuses on the outcome of the empirical study. A conclusion is made on the variables such as gender, race, faculty and demography and the impact on university funds. In the second section of the chapter the focus is on a discussion of possible recommendations and future research.

4.2 MAIN FINDINGS

As stated, the resultant findings of this study can be utilised to change the way in which universities allocate bursaries and prevent large financial losses, while fulfilling its commitment to social justice and providing financial support to students in need.

4.2.1 Primary objective

The primary objective of the study was the analysis of the financial risk due to postgraduates dropping out. In the study the focus was on the postgraduate students whom received university-funded bursaries. From the findings it can be seen that large amounts of funds are lost due to students who drop out of their postgraduate studies. The research concluded that an average of almost R57 million is lost annually at one higher educational institution due to postgraduate students dropping out after receiving university-funded bursaries.

The average national graduate rate at Master's degree level is 21.9% and 13.5% at doctoral level. These percentages are slightly lower than the figures for the university used in this research.

Previous research indicates that financial difficulty is one of the major reasons why students drop out before completing their studies. Universities are encouraged to contribute by providing financial assistance to students in the form of bursary money. Previous research did not state the financial impact on higher educational institutions as a result. From the present research it is clear that it is not only high dropout rates that require urgent attention, but institutions also need to rethink the way in which bursary money is allocated to postgraduate students.

4.2.2 Secondary objectives

From this research it is evident that the dropout rate is not equally distributed by gender, race, geographical location or faculty of study. This means that for certain biographic variables, it seems that students are more likely to drop out. Male students showed a higher dropout rate than female students and African and white students, which showed the two highest dropout rates with regard to race. In Figure 2.1 the national dropout rates per race were divided according to socio-economic status and also indicate the high number of African and white dropout students.

Similarly, students from the North West Province also showed a higher dropout rate, while students enrolled in the Faculty of Education and Training had the highest dropout rate.

While it is true is that universities cannot discriminate against any students based on their race, gender, province of origin or even based on the faculty that they intend to enrol in, higher education institutions can put systems and processes in place to ensure that when a student drops out, the money allocated to them via university-funded bursaries are recovered. This recovering of lost funds can then be re-allocated to other students in need.

4.3 RECOMMENDATIONS

From this finding the researcher recommends that the processes for recovering bursary money from dropout students be reviewed. It is not recommended that the institutions use the findings from this research to allocate bursary money to certain postgraduate students, but rather focus on the recovery of bursary money from dropout students. Universities must also focus on improving the throughput rate of postgraduate students. By granting bursary money from university funds, universities adhere to the NDP and contribute to the economy of South Africa (Cooperative Governance Traditional Affairs, 2018).

It must be noted that a proportion of students from a specific region was not included in this study and may influence the percentage of dropouts per province. The findings should be interpreted with caution.

The institution must identify internal stakeholders in order to address processes and ensure the recovery of bursary money from dropout students at postgraduate level.

One tool to assist in the recovery of bursary money could be system-driven reports that identify students in their second year of postgraduate study who did not re-register in order to complete their studies. System-driven reports must also identify first-year postgraduate students without marks captured in the current year of study. Students in their first year with no marks captured can be identified as students at risk for dropping out of their studies.

4.4 ACHIEVEMENT OF THE OBJECTIVES OF THE STUDY

The objectives set out by the present research study can be divided into a primary and secondary objective. The primary objective of this study was to analyse the financial risk to a university due to postgraduate students dropping out after having received university-funded bursaries.

This objective was reached, as the findings of the study indicated an average sum of R57 million per year being lost due to postgraduate dropouts.

The secondary objectives of the study were to conduct a literary review in order to gain insight into the South African higher education environment, to investigate the challenges in the higher education environment, to explore previous research that had been conducted on the topic and relevant findings, as well as to investigate previous research on student dropouts in South Africa.

Based on the literature review, the researcher found the following information regarding the South African higher educational environment: There are three ministries that deal with education services in South Africa. The DHET sets the goals and framework for higher education in South Africa. The higher education system in South Africa consists of 26 public higher education institutions.

Challenges in the higher education environment can be divided into challenges for the students and challenges for universities. Financial difficulties form part of the challenges that contribute to the delay or non-completion of studies. In turn, the DHET sets targets for the universities to increase the number of and deliver graduates at postgraduate level (Department of Higher Education and Training, 2014). Universities also experience internal challenges with regard to policies and procedures (Uleanya *et al.*, 2017).

Botha, (2018) indicated adequate provision would assist students in completing their studies and prevent them from dropping out. Strategic allocation of bursaries to deserving students at postgraduate level can contribute positively towards increasing throughput rates (Botha, 2018).

Further secondary objectives were to

- determine the demographic variables of the sample population
- validate the reliability of the data by means of statistical analysis
- discuss the variances in dropout rates based on demographic variables and how this related to the allocation of university-funded bursaries
- provide recommendations based on the findings of the literature review and empirical data.

The sample of interest in this research study was identified and consisted of postgraduate students who received university-funded bursaries and who then dropped out of their studies. A timeframe of 2012–2017 were used.

The variances in dropout rates as per demographic variables was analysed and interpreted based on an analysis of the data. Recommendations were made based on these findings and that of the literature review.

Based on the discussion of the secondary objectives above, the researcher deems the secondary objective as being met.

4.5 RECOMMENDATIONS FOR FUTURE RESEARCH

Only data from one higher education institution were used, and therefore no generalisations can be made on the state of dropouts and university-funded bursaries. Future research could be conducted at more than one university and would therefore provide a more accurate presentation of the state of postgraduate dropout rates among students who have been awarded university-funded bursaries.

As stated previously, some students may have continued their postgraduate studies at a different institution or students may have dropped out and continued their studies at a later stage. Without taking these other variables into account, a skewed picture may be presented in the research findings. The researcher therefore recommends that more variables be included in future studies.

As seen in Figure 2.1, the socio-economic status of postgraduate students may have an impact on the number of students who drop out. Further research may include the socio-economic status of dropout student in order to form a clearer picture with regard to the financial loss suffered by higher education institutions.

4.6 CONCLUSION

In summary, the empirical research provided an insight into the financial loss for a higher education institution due to postgraduate students dropping out from their studies after receiving university-funded bursary money.

Looking at the variables defined in the secondary objective, the researcher concluded that variables such as gender, race, geographic location and faculty played an integral role in the dropout rate of postgraduate students. The literature review indicated that several other variables such as socio-economic status may also play a role in the dropout rate of postgraduate students. However, this research study did not focus on those variables.

As a result of the findings, the researcher recommends that higher education institutions review current processes in order to facilitate the recovery of bursary money lost due to a high number of postgraduate dropouts. The researcher also recommends that higher education institutions investigate internal factors leading to students dropping out at postgraduate level in order to increase throughput. This is in line with the NDP and the best interests of all stakeholders.

Because not all variables influencing postgraduate student dropouts were examined, the researcher would recommend further studies investigating these variables. It is also recommended that more universities be included in future studies.

Finally, all research objectives as set out in Chapter 2 has been met to the standards of the researcher. Therefore, this research highlights the financial implication for the university due to the high dropout rate at postgraduate level.

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SOLEMN DECLARATION AND PERMISSION TO SUBMIT

Solemn declaration by student

I, **JOHANNA SUSANNA MYBURGH**

declare herewith that the thesis/dissertation/mini-dissertation/article entitled (**exactly as registered/approved title**),

Investigating the impact of postgraduate student drop-out rates at a higher education institute

which I herewith submit to the North-West University is in compliance/partial compliance with the requirements set for the degree:

Master of Business Administration

is my own work, has been text-edited in accordance with the requirements and has not already been submitted to any other university.

LATE SUBMISSION: If a thesis/dissertation/mini-dissertation/article of a student is submitted after the deadline for submission, the period available for examination is limited. No guarantee can therefore be given that (should the examiner reports be positive) the degree will be conferred at the next applicable graduation ceremony. It may also imply that the student would have to re-register for the following academic year.

Ethics number:

NWU-00418-18-A4

ORCID:

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Signature of Student

JS
Myburgh

Digitally signed by JS Myburgh
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ou=Student Finance & Financial
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Date: 2019.12.03 13:05:30 +0200

University Number

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Signed on this 03 day of December of 2019

Permission to submit and solemn declaration by supervisor/promoter

The undersigned declares that the thesis/dissertation/mini-dissertation complies with the specifications set out by the NWU:

- with regards to A-rules (PhD students should have at least one paper on aspects of the thesis submitted for review in an accredited scientific journal) Yes ☐ No ☒ Not applicable (n/a) ☒
- with regards to faculty rules on submission or acceptance by an accredited scientific journal: Yes ☐ No ☐ n/a ☒
- with regards to faculty rules on peer reviewed conference proceedings: Yes ☐ No ☐ n/a ☒
- the student is hereby granted permission to submit his/her mini-dissertation/ dissertation/thesis: Yes ☒ No ☐
- that the student's work has been checked by me for plagiarism (by making use of TurnItIn software for example) and a satisfactory report has been obtained: Yes ☒ No ☐

and that the work was language edited before submission for examination.

Signature of Supervisor/Promoter

Prof AM
Smit

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DECLARATION

P O Box 782078
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5 December 2019

To whom it may concern
Faculty of Law
University of the North-West (Potchefstroom Campus)

Dear Sir/Madam,

Declaration of copy-editing of mini MA dissertation: 'Investigating the impact of postgraduate student drop-out rates at a higher education institute' by Ms S Myburgh'

I hereby declare that I, as a professional copy-editor, copy-edited the above-mentioned work.

Copy-editing

My copy-editing entailed editing, that is, checking for, among other things, grammar; consistency in capitalisation; spelling; hyphenation; use of abbreviations; correctness of punctuation (including the use of quotation marks); consistency of citation format; and other matters of style, and some substantive editing, that is, reorganising the presentation of the text (e.g., rephrasing for smoothness or to eliminate ambiguity).

Method

I used the Microsoft Word Track Changes function. The student selected the necessary changes.

Affiliation and accreditation

I am a professional editor with more than 28 years' experience and training. I have been affiliated with the following professional organisations:

Professional Editors' Group (PEG) (South Africa): Former National Deputy Chair, Meetings Convener and Gauteng Branch Chair.

Society for Editors and Proofreaders (SfEP) (United Kingdom): Former Associate Member.

Academic and Non-Fiction Authors' Association of South Africa (ANFASA): Former Member.

English Academy of South Africa: Former Member.

I trust that the above-mentioned meets with your approval.

Yours faithfully,



(Ms) Diana Coetzee
(Copy-editor, Proofreader and Publishing Consultant)